

Does Entrepreneurship Contribute to Sustainable Development? A Systematic Literature Review

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Abstract

Sustainable development has become an important subject of discussion in the recent years, especially after it was raised in the UN report on sustainability, published in 1987. Thus, connection between sustainable development and entrepreneurship has received a lot of attention in scientific circles, resulting in a number of publications on the matter. These publications cover various issues around this topic and it is an innovative and interesting task to synthesize and inventory them by means of systematic literature review (SLR).

This thesis presents a SLR of published research articles, concerning the connection between entrepreneurship and sustainable development, approached from the Triple Bottom Line viewpoint. Based on the predefined search strategy a total of 35 such articles were identified and 27 of those were included in the review. The selected articles were published between years 1999 and 2015. This master's thesis presents a detailed description of the review process, including the review protocol, presentation of the results and researcher's analysis of the studied matter. It provides conclusions and identifies gaps in the research area, thus giving suggestions for future research on this matter.

The main findings of the thesis are the following. The connection between entrepreneurship and sustainable development is still a nascent field of research, which is why it is impossible to provide any definite "yes or no" answer to the question whether entrepreneurship contributes to sustainable development. The first wave of the publications in the field, however, tends to arrive to the conclusion that there is a correlation between certain forms of entrepreneurship (social, environmental and sustainable) and sustainable development. Sustainable entrepreneurship, in particular, has a great potential to contribute to sustainable development. Additionally, the research results show that sustainability issues nowadays can be a source of entrepreneurial opportunity.

Since sustainable entrepreneurship is an emerging field of research, it still requires more general studies. There is also a number of themes in this area that need more profound basic studies. However, few topics in the field already received wide coverage in the scientific community, e.g. the nature of market imperfections leading to opportunities for sustainable entrepreneurship and entrepreneurs' incentives for starting sustainable businesses. In the future the field would greatly benefit from more empirical studies covering various issues in the area.

Keywords systematic literature review, sustainable development, triple bottom line, sustainable entrepreneurship, entrepreneurial opportunity

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List of Abbreviations

SLR - Systematic Literature Review

TBL - Triple Bottom Line

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Introduction

On March 20, 1987, the World Commission on Development and the Environment of the United Nations presented the report “Our Common Future”, which is also known as the “Brundtland Report” (named after former Norwegian Prime Minister Gro Harlem Brundtland, who was the Chair of the Commission). In this report sustainable development was defined as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”. Brundtland report was a result of 900-day intensive international research job performed by scientists, senior government representatives, research institutions, industry representatives and other players in the field from all over the world. The aim of the report was to follow the ideas of the United Nations Conference on the Human Environment (the Stockholm Conference), where environmental concerns were introduced to the formal political development circles and the opinion that environmental and development issues should go hand in hand was formulated. The Brundtland Commission’s work was continued in the 1992 Earth Summit and resulted in the establishment of the Commission on Sustainable Development. Such huge actions could not go unnoticed. Since the end of the 1980s government representatives, scientists and experts, research institutes, industrialists, NGO’s representatives, and the general public became concerned with the issues of sustainable development.

Consequently, a huge research work about this issue took off. Different aspects of sustainability and its relation to business operations became a focus of scientific research. There are many reasons for such studies. In some cases the researchers simply understand that consumption and production patterns became a matter of concern and something has to be done in respect (e.g. Anderberg’s article “Industrial Metabolism and Linkages between Economics, Ethics, and the Environment”, published in 1998). Sometimes the research is driven by the fact that the country’s (or industry’s) regulations have changed and companies have to operate under new environmental acts (e.g. the article of Haisheng et al. “Uncertainty, Irreversibility and the Timing Problems of Environmental Policy”, published in 2006). Different aspects of sustainability and its relation to business attracted scientists’ interest: what is sustainability and sustainable development (e.g. Binder and Belz, 2015); how businesses can become sustainable (e.g. Hockerts and Wüstenhagen,

2010); can sustainability be a source of entrepreneurial opportunity (e.g. Cohen and Winn, 2007); efficient ways to "measure" sustainability (e.g. Scerri and James, 2010). These are only a few topics among many. A number of sustainability measurement concepts were also introduced, such as Triple Bottom Line (Elkington, 1997) and Circles of Sustainability (Magee et al., 2013). Naturally the studies of the connection between sustainability and entrepreneurship also took off.

Despite the fact that the amount of accessible research in this area has increased dramatically over the last 30 years, the link between sustainability and entrepreneurship is understudied and scientists believe that sustainable entrepreneurship is an emerging area of research (Binder and Belz, 2015). Therefore, there is a clear need for a systematic and well-focused review, which will allow policy makers and professionals to make informed decisions and keep up-to-date with the advances in this field. Thus, this study aims to summarize and analyse by means of SLR the existing research that covers the issues of sustainable development and its connection to entrepreneurship with an objective to answer the research question: «Does entrepreneurship contribute to sustainable development?» and the related sub-questions: "How much is known about the link between entrepreneurship and sustainable development based on prior research?"; "What is known about the link between entrepreneurship and sustainable development based on prior research?"; and "What kind of research agenda should be pursued in the future?"

The review follows the guidelines on conducting a systematic review provided by The Cochrane Collaboration's Cochrane Reviewers' Handbook (Clarke and Oxman, 2001) and the National Health Service Centre for Reviews and Dissemination (NHS Centre for Reviews and Dissemination, 2001). The review process starts with developing a review protocol. A total of 35 articles were identified at the initial stage of the review. Out of those, 27 papers met the required criteria and were included in the study. The selected articles were published between 1999 and 2015 and meet the following requirements: peer-reviewed journal articles, ranking 3 and 4 (Association of Business Schools Journal Guide – ABS2010); written in English; accessible in the listed digital databases (EBSCO (Business Source Complete) and ProQuest). The articles were analysed to find answers to the research questions. Research biases were also identified and assessed.

The thesis is structured as follows. In the first chapter the author provides a short overview of different approaches to sustainability and discusses various types of entrepreneurship, paying particular attention to the topic of sustainable entrepreneurship. Second chapter gives a general overview of the method that is used in this study (systematic literature review) - its distinctive features and historic development. The author explains the reasons why SLR was chosen as a research method for this thesis. This is followed by the description of the research methodology and the detailed report on how it was applied in this work. Third chapter of the thesis describes the findings of the current study and contains researcher's own detailed analysis of the job done. The last section of the thesis provides conclusions and suggestions for further research. Complete list of the articles that were used in the review and data extraction forms can be found in appendices.

Chapter 1 - Sustainability and Entrepreneurship - Theoretical Background

This chapter presents an overview of the main concepts that are used in the current review. The author describes what is sustainability, the historical development of this concept and its position nowadays. Different approaches to sustainability (Triple Bottom Line and Circles of Sustainability) are also reviewed in this chapter. The chapter concludes with the description of the phenomenon of sustainable entrepreneurship and its related concepts: conventional, environmental and social forms of entrepreneurship.

1.1 - Triple Bottom Line

The word sustainability has Latin origin. It comes from “*sustinere*”, where “*tenere*” means “to hold” and “*sub*” means “up”. In the past 30 years it has been mainly used when speaking about the human sustainability on planet Earth and the most known usage of this word comes from the definition of “sustainable development”, which was formulated by the Brundtland’s Commission of the United Nations in 1987 (“sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs”). The 2005 World Summit on Social Development identified the following sustainable development goals: economic development, social development and environmental protection (United Nations General Assembly, 2005). It can be seen that sustainability implies the dynamic balance between its three main components: environment, human social welfare, and economic activities. These components form three pillars of sustainability (see Fig. 1), which are interdependent and reinforcing. The three pillars approach is known as Triple Bottom Line (TBL). This term was first introduced by Freer Spreckley in 1981 (Spreckley, 1981) and articulated more fully by John Elkington in 1997. According to Elkington, when corporations introduce TBL agenda they start to focus not only on the economic value that they add, but also on the environmental and social value that they either add or destroy (Elkington, 1997). The idea of TBL approach to business gained wide recognition and support during the 1990s. Many companies adopted the principles of TBL for their operations. Nonetheless, unfortunately, production and consumption patterns in the world in general remain

unsustainable (United Nations, 2002) and the scale and nature of human and economic activities exceed what the planet can physically sustain (World Resources Institute, 2005).

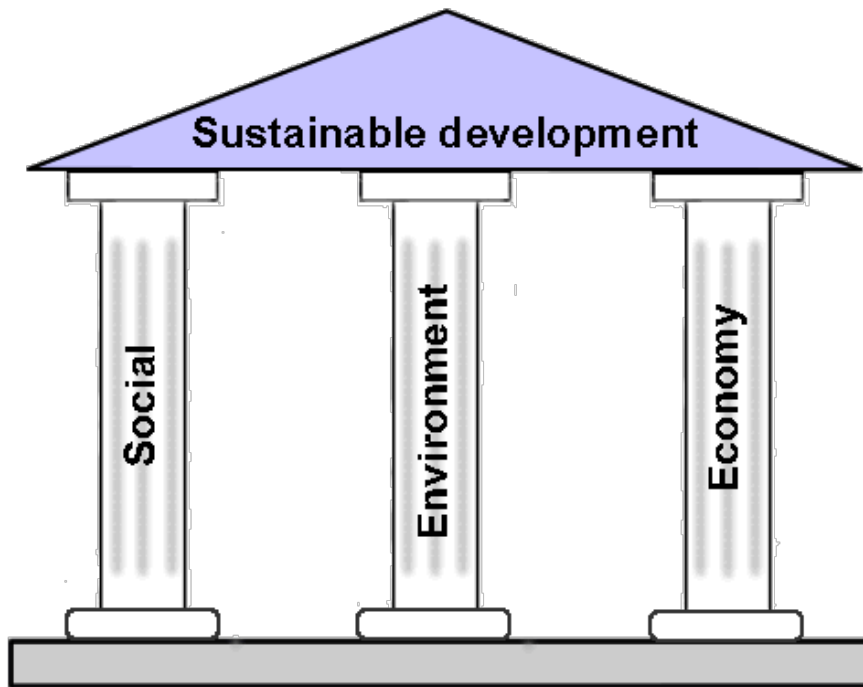


Figure 1. Three Pillars of Sustainable Development. Adapted from <http://www.sustainability-ed.org.uk>

According to Elkington (1997) the aim of the TBL approach is to advance the goal of sustainability in business practices. The author also calls TBL the three P's approach, because it includes people, planet and profit. "People account" is the measurement of company's degree of social responsibility (this includes fair and favourable business practices for the community in which the company operates). "Planet account" is the measurement of company's degree of environmental responsibility (this includes the use of sustainable environmental practices and the reduction of the environmental impact). "Profit account" is the measurement of company's economic value (the economic value created by the company, or the economic benefit for the community and society). When a company applies TBL agenda correctly it means that it pays equal amount of attention to all three bottom lines – social, economic and environmental, maintaining all of them in a reasonable balance. A challenge with TBL approach is that all three accounts require different ways of measuring. Whereas "profit account" can clearly be measured in terms of cash, "people" and "planet" accounts pose difficulties for such measurements. As a result, all three accounts must be considered separately.

Speaking about the connection between sustainable development and business it is interesting to quote the words from another Elkington's paper "Governance for Sustainability" (2006):

"It is clear that a growing proportion of corporate sustainability issues revolve not just around process and product design but also around the design of corporations and their value chains, of "business ecosystems" and, ultimately, of markets. Experience suggests that the best way to ensure that a given corporation fully addresses the TBL agenda is to build the relevant requirements into its corporate DNA from the very outset – and into the parameters of the markets it seeks to serve. Clearly, we are still a long way from reaching this objective, but considerable progress has been made in recent decades. The centre of gravity of the sustainable business debate is in the process of shifting from public relations to competitive advantage and corporate governance – and, in the process, from the factory fence to the boardroom".

In other words no business would be sustainable if the principles of sustainability are not incorporated into its design and into the environment where this business operates. Therefore, the best way to move towards sustainable development is by applying the TBL principles from the roots – the corporate levels.

1.2 - Circles of Sustainability

No method is perfect when it comes to measuring such ample concepts as environmental impact or social welfare. Therefore, it is only natural that there are alternatives to Triple Bottom Line theory. The most known one is called the Circles of Sustainability. It is a method for understanding and assessing sustainability, and for managing projects directed towards socially sustainable outcomes (James et al., 2015). This method uses a four-domain model, which includes economics, ecology, politics and culture. Each of these domains has seven subdomains (see fig. 2).

Magee et al (2013) provide the following descriptions of the domains and the related subdomains:

- The *economics domain* includes practices of the production, use, and the management of the resources. The concept of "resources" here is used in the

broadest sense of this word. There are following subdomains in this domain: production and resourcing; exchange and transfer; accounting and regulation; consumption and use; labour and welfare; technology and infrastructure; wealth and distribution.

- The *ecological domain* includes practices and meanings happening across the intersection between the social and the natural realms with a focus on the important dimension of human engagement with and within nature, but also including the built-environment. This domain includes the following subdomains: materials and energy; water and air; flora and fauna; habitat and land; place and abode; constructions and settlements; emission and waste.
- The *political domain* includes practices associated with general issues of social power (organization, authorization, legitimation and regulation). This area extends beyond the conventional understanding of politics and includes not only issues of public and private administration, but more broadly social relations in general. This domain has the following subdomains: organization and governance; law and justice; communication and movement; representation and negotiation; security and concord; dialogue and reconciliation; ethics and accountability.
- The *cultural domain* includes practices, discourses, and material expressions, which, over time, express continuities and discontinuities of social meaning. It consists of the following subdomains: engagement and identity; performance and creativity; memory and projection; belief and meaning; gender and reproduction; enquiry and learning; health and wellbeing.

There are certain differences between TBL, Circles of Sustainability and other sustainability measurement methods. Critiques of TBL approach claim that TBL sees economy as the primary point of focus, whereas environmental issues are considered as externality (Scerri and James, 2010). Many sustainability measurement methods are also considered too wide for providing effective measurements. For example, according to Magee et al. (2013) the size, scope and sheer number of indicators included within many such methods means that they are often unwieldy and resist effective implementation. These researchers also claim that one-dimensional quantitative basis of many such

methods means that they have limited purchase on complex qualitative issues. The restricted focus of current indicator sets is also criticised, as it seems to fail to work efficiently across different organizational and social settings - corporations and other institutions, cities, and communities (Scerri and James, 2010).

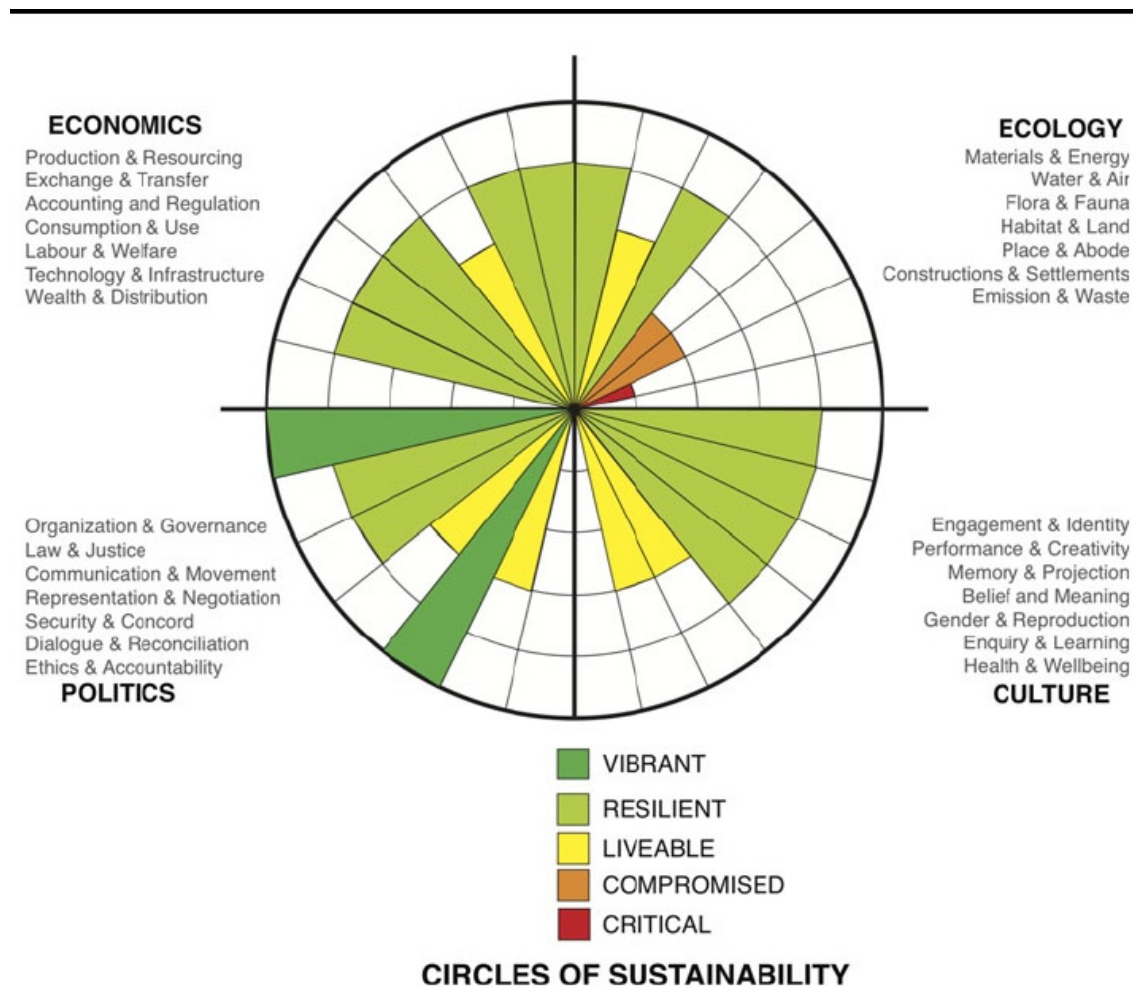


Figure 2. Four Domains of Sustainability (adapted from Magee et al., 2013)

In spite of the abovementioned critiques, TBL approach to sustainability was chosen for the current research work. This decision was influenced by the fact that most of the articles that met the research criteria and, therefore, were included in the current review, use TBL framework (21 out of 27 reviewed articles (see Table 3)). Thus, it seemed logical to use this particular framework instead of, for example, circles of sustainability.

1.3 - Sustainable Entrepreneurship

If we look at the traditional definition of entrepreneurship in the Oxford dictionary (entrepreneurship - the activity of setting up a business or businesses, taking on financial risks in the hope of profit) we can see that it does not mention anything about sustainability. Indeed, the economists of the mid 20th century, such as Schumpeter (1942) and Kirzner (1973), usually associated entrepreneurial activities with economic development and wealth generation, while ignoring the environmental and social problems. In this view the sustainable approach to entrepreneurship of the late 20th century seems to be quite a revolutionary idea. Hart and Milstein were among the first scientists who emphasized the potential of entrepreneurship for sustainable development. In their work they applied Schumpeter's concept of creative destruction (Schumpeter, 1942) as a precondition and the central force that leads to a transition to sustainable society. They claimed that "innovators and entrepreneurs will view sustainable development as one of the biggest business opportunities in the history of commerce" (Hart and Milstein, 1999) and by no means they considered sustainable development as a cost factor, impeding competition. Other scientists also share this view and see sustainability as a source of entrepreneurial opportunity that has an overall positive impact on the environmental, social and economic development. According to Cohen and Winn, (2007) and Dean and McMullen (2007) entrepreneurial activities can preserve ecosystems, counteract climate change, reduce environmental degradation and deforestation, improve agricultural practices and freshwater supply, and maintain biodiversity. Wheeler et al. (2005) claim that such activities, particularly when taking place in developing countries, can enhance education, productivity, socioeconomic status, physical health, and self-reliance of individuals and societies. Based on all the abovementioned studies it can be concluded that under the influence of the current economic, social and environmental realities some part of the entrepreneurial activities moved from being focused solely on gaining profits towards focusing on sustainability, in addition to wealth generating. In many cases traditional entrepreneurship shifted towards sustainable entrepreneurship. Furthermore, in many areas sustainable development became a source of entrepreneurial opportunity. The phenomenon of sustainable entrepreneurship is directly related to the main topic of the current research, which aims to answer the question: "Does entrepreneurship contribute to sustainable development?"

According to Patzelt and Shepherd (2011) sustainable entrepreneurship is the “discovery, creation, and exploitation of opportunities to create future goods and services that sustain the natural and/or communal environment and provide development gain for others”. Sustainable entrepreneurship is based on and related to conventional entrepreneurship, environmental entrepreneurship and social entrepreneurship (Binder and Belz, 2015). Since these three types of entrepreneurship form the basis for sustainable entrepreneurship and are closely related to it, it makes sense to study them in more detail. Such study would provide a better understanding of how the field of sustainable entrepreneurship emerged in the end of the 1990s.

As it was described above, sustainable entrepreneurship focuses on the TBL approach and, therefore, has three dimensions – economic, social and ecological. Its related concepts are not so versatile. Conventional form of entrepreneurship is one-dimensional (it pursues mainly economic goals) and environmental and social forms are two-dimensional. Environmental entrepreneurship aims at economic and ecological achievements, while social entrepreneurship pursues social and financial goals. These three related concepts of sustainable entrepreneurship and their interconnections are illustrated in Figure 3.

Conventional entrepreneurship

Definitions of conventional entrepreneurship come from the early works of Schumpeter (1942) and Kirzner (1973). For Schumpeter innovation is the heart of the concept and is seen as the creative art of combining existing resources in new profitable ways. Entrepreneur is able to change the status quo at the market through the process of creative destruction. Thus, the economic growth is built by creating entrepreneurial opportunity. For Kirzner alertness to identify new opportunities is a more important requirement for entrepreneurship than innovation, meaning that the entrepreneurial opportunity is discovered, rather than created. Many entrepreneurship researchers take a neutral position on this issue and claim that the combination of the two sources (innovation and alertness to identifying new opportunities) is required for entrepreneurship. Consequently, in the neutral position the entrepreneurial opportunity can either be created or discovered.

Environmental entrepreneurship

Dean and McMullen (2007) define environmental entrepreneurship as “the process of discovering, evaluating, and exploiting economic opportunities that are present in

environmentally relevant market failures”. The environmental entrepreneurship sometimes is also called “green entrepreneurship” (Allen and Malin, 2008) or “ecopreneurship” (Schaltegger, 2002). The core of the concept is formed by a double bottom line – environmental responsibility and profitable opportunities. Similarly to social entrepreneurship, environmental entrepreneurship is a mission-driven activity (Dixon and Clifford, 2007).

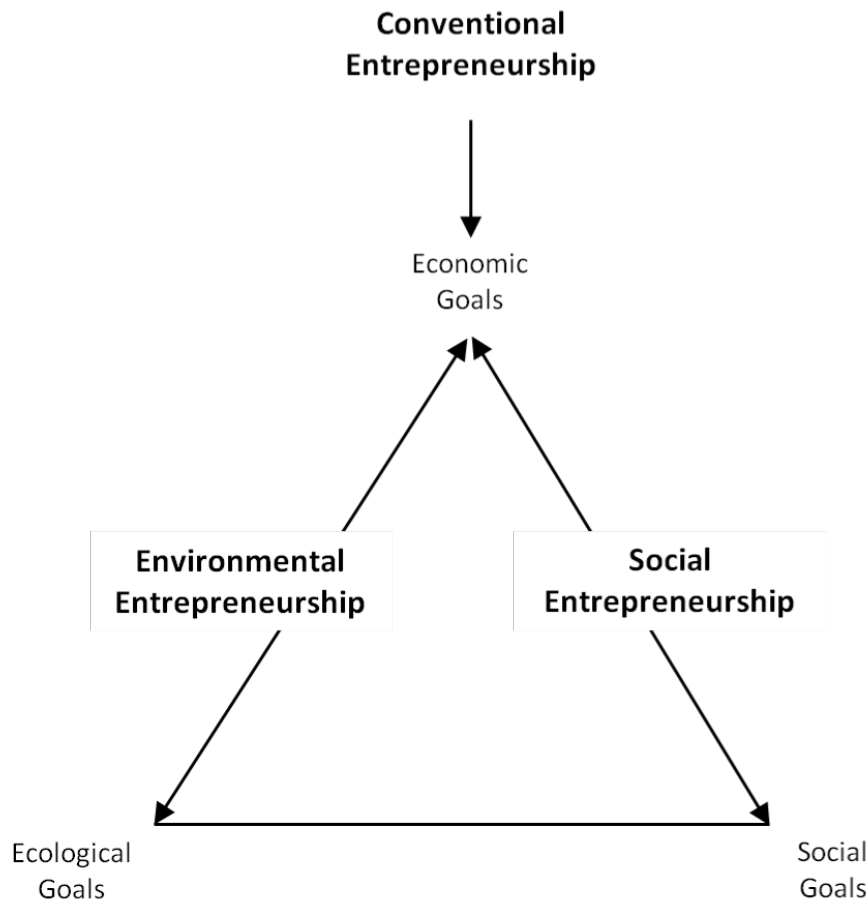


Figure 3. Related Concepts of Sustainable Entrepreneurship. Adapted from Binder and Belz, 2015

Social entrepreneurship

According to Tan et al. (2005) in modern society social entrepreneurship is “an altruistic form of entrepreneurship that focuses on the benefits that society may reap.” In other words, “entrepreneurship becomes a social endeavour when it transforms social capital in a way that affects society positively” (Alvord et al., 2004). In social entrepreneurship entrepreneurs “play the role of change agents in the social sector, by: adopting a mission to create and sustain social value (not just private value); recognizing and relentlessly

pursuing new opportunities to serve that mission; engaging in a process of continuous innovation, adaptation, and learning; acting boldly without being limited by resources currently in hand; and exhibiting heightened accountability to the constituencies served and for the outcomes created” (Dees, 1998). In this type of entrepreneurship it is not the economical gain, but the social mission what becomes the focus of the entrepreneurial activities.

As it was described above, all three forms of entrepreneurship lie at the heart of sustainable entrepreneurship. Therefore, understanding the concepts of conventional, environmental and social entrepreneurship is important for understanding the concept of sustainable entrepreneurship - how the field emerged and how it became possible to combine the three disconnected (or partly connected) lines (economical, environmental, and social) into one.

The question of whether, how and to what extend entrepreneurship became sustainable has been a focus of attention for many scientists in the last 30 years. Therefore, it makes sense to perform a thorough study of these scientific articles and try to answer the research question of the current work: “Does entrepreneurship contribute to sustainable development?” It seems that the best way to tackle this question is by performing a systematic literature review of existing studies. Detailed description of this method is provided in the next chapter.

Chapter 2 - Methodology

This section gives a general overview of systematic literature review method (SLR) – its distinctive features and historic development. The reasons why SLR was chosen as a research method for this study are also provided in this chapter. This is followed by the description of the research methodology and the detailed report on how it was applied in this research work.

2.1 - Systematic Literature Review

The process of systematic review is generally understood to be a reliable, scientific overview of extant research on a subject area or topic (Petticrew and Roberts, 2006). Its purpose is to identify, appraise and synthesize all relevant studies using a transparent, replicable process (Tranfield et al., 2003). Systematic review should not be confused with traditional narrative review. It adopts a detailed technology, which is replicable, scientific and transparent, with the objective of performing an exhaustive literature search of published and unpublished studies and providing an audit trail of the reviewers, decisions, procedures and conclusions (Cook, Murlow and Haynes, 1997). SLR is used not only to collect, summarize and synthesize all relevant data, but also to analyse and interpret it. Researcher collects all the best available literature about a particular topic and uses it to provide informative and evidence-based answer to a particular research question. When SLR method is applied correctly the outcome of the research provides a high-quality review of a particular topic and researcher's own analysis of the studied matter. The results of such study can later on be analysed by the professionals in the field and serve as a basis for formulating changes to existing policies and taking other relevant decisions. The results of SLR also help to identify possible research gaps in the studied area, thus providing guidelines for scientists about possible new research directions.

Systematic Literature Review is a well-established research method. First two articles that are considered "parents" of modern systematic literature review methodology were published in the 1970s in UK and USA. They drew attention to the fact that systematic organised critical summary of the existing scientific data was lacking in the medical field.

These articles (Cochrane, 1972 and Glass, 1976) served as a foundation for developing SLR as a valid research method. However, it was only in 1989 that first significant developments in systematic review methodology took place. The two-book report of Chalmers, Enkin and Keirse, which documented systematic and reproducible methods that they used to search and report the results of all relevant studies for their Oxford Database of Perinatal Trials, is considered instrumental in establishing foundations for developing SLR as a scientific method (Chalmers et al., 1989). This publication was followed by the establishment of Cochrane Collaboration in 1992 – organisation that prepares, updates and promotes systematic reviews (known as Cochrane reviews) with an objective of assisting health care providers, policy makers and patients to take well-informed decisions about health care. Over the last 20 years SLR proved itself as an efficient and much needed research method in the medical field, which could not stay unnoticed by scientists of other disciplines, who realised the great potential of systematic professional reviews of otherwise scattered data. Different research areas – educational, managerial, economics and others followed the trend. For example, in the study about the methodology for developing evidence-informed management knowledge Tranfield et al. (2003) note that “making sense of a mass of often-contradictory evidence has become progressively harder” and state that “systematic review can be argued to lie at the heart of a “pragmatic” management research, which aims to serve both academic and practitioner communities”. Systematically reviewing the literature has been accepted as a legitimate research methodology since the 1990s (Dickson et al., 2013) and nowadays SLR has become a rather popular method of conducting research in any field of studies.

In the current thesis SLR methodology was chosen because of several reasons. As it was described above, a lot of high-quality research on the connection between entrepreneurship and sustainability has been performed already. Therefore, it makes sense to take advantage of this vast number of studies and perform a thorough analysis of their results and it seems that the SLR methodology provides the best tools for doing this. There are also few other reasons why the author of the current research chose SLR method. Firstly, this method allows the author to try both the roles of a reviewer and a researcher, which is quite a challenging task. Secondly, this method is a great way to improve one’s skills in such areas as data acquisition, systematisation and data analysis. Additionally, the researcher hopes to obtain solid knowledge of the studied subject and related frameworks. Thirdly, diving into

the huge number of different scientific articles coming from various sources and performing their “inventory” is an extremely interesting process.

One of the distinctive features of a good-quality systematic review is that it provides a transparent report of all the steps that have been undertaken by a researcher throughout the review process. Such reporting is expected to help the reader to reproduce the review if needed and also to help to assess the validity of the review’s conclusions. In the current thesis the author followed the list of stages proposed by The Cochrane Collaboration’s Cochrane Reviewers’ Handbook (Clarke and Oxman, 2001) and the National Health Service Centre for Reviews and Dissemination (2001). The following sections of the thesis provide a brief overview of each stage of SLR (see Table 1) and describe in detail what exactly the author of the current study did at each particular phase of the research.

Table 1. Stages of the Systematic Review

Stage 1 – Planning the review

Phase 0 – Identification of the need for a review

Phase 1 – Preparation of a proposal for a review

Phase 2 – Development of a review protocol

Stage 2 – Conducting the review

Phase 3 – Identification of research

Phase 4 – Selection of studies

Phase 5 – Study quality assessment

Phase 6 – Data extraction and monitoring progress

Phase 7 – Data synthesis

Stage 3 – Reporting and dissemination

Phase 8 – The report and recommendations

Phase 9 – Getting evidence into practice

2.2 - Stage 1: Planning the Review

Proper planning is the essential part of any research activity. In SLR the first step in the planning stage is to form a review panel that includes experts in the areas of both methodology and theory, as well as practitioners working in the field of the planned study.

The review panel helps to direct the research process and resolves any issues over the inclusion and exclusion of certain studies. Review panel and the researcher discuss the planned research and conduct a scoping study to check whether a similar work had been done before. Such study can cover not only traditional academic research papers, but also alternative ways in which a research question could have been addressed before. Initial stage of SLR is also a moment when the main definitions of the study are decided upon and the research question is formulated.

To assess the potential of the topic reviewed in the current study the author sought advice from the researchers at the Department of Management Studies at Aalto University School of Business. Different approaches to sustainability, connection between sustainability and entrepreneurship and advantages and disadvantages of using SLR methodology for the planned study were discussed with the professors and the research question: “Does Entrepreneurship Contribute to Sustainable Development?” was formulated. At the same time the author performed a scoping search for similar studies (those that would use the same research method and aim to answer similar research question). After making sure that no such study had been conducted before the author presented the research question and the research plan to the Master’s students of Entrepreneurship Degree programme at the thesis seminar at Aalto University School of Business. Discussions with fellow Master’s students (many of whom are working entrepreneurs) and professors strengthened the author’s motivation for conducting this study, since it became clear that the research topic is quite understudied, especially with the use of the SLR methodology. The definitions chosen for the study are the following:

Sustainable development – development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development, 1987).

Sustainable enterprise - enterprise that creates simultaneous economic, social and ecological gains (Wheeler et al., 2005).

Triple Bottom Line - an accounting framework that incorporates three dimensions of performance: social, environmental and financial.

Entrepreneurship - the process of starting a business, offering a product, process or service. It may operate within an entrepreneurship ecosystem, which includes government programmes and services that support entrepreneurs, entrepreneurship resources, entrepreneurship education and training and financing. The definition also includes intrapreneurship - the act of behaving like an entrepreneur while working within a large organization.

It is important to mention that not all the articles chosen for this study include exact definitions of the terms presented above. However, such studies are also included into the current review because the topics described in them essentially are in line with the established inclusion criteria. For example, the definition of sustainable development in the reviewed articles does not always fully correspond to Brundtland Report's definition. Ten of the reviewed articles provide this definition. Two articles provide a similar one, and one article provides a definition that considers only environmental and economic aspects of sustainability. 14 articles do not provide any definitions of sustainable development. It is interesting to note that most of the articles that provide a definition of sustainable development were published between 1999 and 2010. The articles that do not provide any definition were published between 2010 and 2015. This can mean that in the recent years the term has gained solid positions in the field of entrepreneurial, environmental, ethical and managerial studies and detailed clarification of this phenomenon is not required anymore. Table 2 illustrates the usage of the definition of sustainable development in the reviewed articles.

Table 2. Usage of the Definition of Sustainable Development in the Reviewed Articles

Definition of sustainable development used in the article	Definition	Number of articles	Articles
Definition of the World Commission on Environment and Development (1987)	Sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs".	10	Hart and Milstein, 1999 Elkington, 2006 Dean and McMullen, 2007 Cohen and Winn, 2007 Pacheco et al., 2010 Patzelt and Shepher, 2010 Hockerts and Wüstenhagen, 2010 Kuckertz and Wagner, 2010 Hall et al., 2010

			Lourenço et al., 2013
Definition, which is similar to the definition of the World Commission on Environment and Development (1987)	Sustainable development is a concept that describes the social goal of improving and maintaining human wellbeing over a long-term time horizon within the critical limits of life-sustaining ecosystems (UN Conference on the Human Environment, 1972).	1	Parrish, 2010
	Sustainable enterprise is the enterprise that creates simultaneous economic, social and ecological gain.	1	Wheeler et al., 2005
Definition, that considers only 2 pillars of sustainability	“Sustainable” refers to the capacity of the environment to sustain human life and current levels of economic activity without degrading the quality of environmental services—and the pathways by which we might achieve them.	1	Potts et al., 2010
No definition of sustainability is provided.		14	York and Venkataraman, 2010 De Clerq and Voronov, 2011 Shepherd and Patzelt, 2011 Spence et al., 2011 Pless and Appel, 2012 Santos, 2012 Griskevicius et al., 2012 Zahra et al., 2013 Ghauri et al., 2014 Vickers and Lyon, 2014 Gray et al., 2014 Nicolopoulou, 2014 Pinkse and Groot, 2015 Muñoz and Dimov, 2015
Total number of articles		27	

Not all reviewed articles discuss sustainable development seen from the TBL viewpoint. Several articles mention only social or environmental entrepreneurship. However, these articles are still eligible for the current review since they do talk about sustainability issues. This finding proves that sustainable entrepreneurship is still a young area of research and the borders of the field are not clearly defined. 78% of the articles (21 articles) use the TBL approach in their study. In 4 articles researcher(s) discuss only 2 pillars of TBL – environment and economy. In one paper the focus is on social and economic pillars of TBL. This clearly shows that the concept of TBL goes hand in hand with sustainable development in general and sustainable entrepreneurship studies in particular. Table 3 provides more data about the use of TBL concept in the reviewed articles.

Table 3. Usage of the TBL Concept in the Reviewed Articles

Use of the TBL concept	Number of articles	Articles
Researcher(s) use TBL approach to sustainability	21	Wheeler et al., 2005 Elkington, 2006 Cohen and Winn, 2007 Pacheco et al., 2010 Patzelt and Shepher, 2010 Parrish, 2010 Hockerts and Wüstenhagen, 2010 Kuckertz and Wagner, 2010 Hall et al., 2010 De Clerq and Voronov, 2011 Spence et al., 2011 Shepherd and Patzelt, 2011 Pless and Appel, 2012 Griskevicius et al., 2012 Lourenço et al., 2013 Zahra et al., 2013 Vickers and Lyon, 2014 Gray et al., 2014 Nicolopoulou, 2014 Pinkse and Groot, 2015 Muñoz and Dimov, 2015
The authors discuss only two pillars of sustainability – environmental and economic.	4	Dean and McMullen, 2007 Potts et al., 2010 York and Venkataraman, 2010 Hart and Milstein, 1999
The authors discuss only two pillars of sustainability – social and economic.	2	Santos, 2012 Ghauri et al., 2014
Total number of articles	27	

The last phase of the SLR planning stage is the preparation of a review protocol. The protocol is a plan that helps to protect objectivity by providing explicit descriptions of the steps to be taken (Tranfield et al., 2003). The protocol is necessary because it reduces the biasness of the researcher, thus increasing validity of the study. Unlike in medicine studies, in managerial studies it is important to construct review protocol in such a way that it leaves space for a conceptual discussion of the research problem (Tranfield et al., 2003). Managerial reviews are more explorative in nature, meaning that the review protocol should be flexible enough to accommodate possible changes in the review strategy and research direction. All such changes should be documented throughout the research process and described in the research publication. The author of the current research aimed to construct review protocol in the best possible way to reduce researcher's biasness, while having enough flexibility for a possible change in the research direction. The following review protocol was prepared for this study.

Review Protocol

1. Background
2. Research question
3. Search strategy
 - 3.1 Search strings
 - 3.2 Resources/Databases to be searched
4. Study selection criteria
 - 4.1 Inclusion criteria
 - 4.2 Exclusion criteria
5. Study selection procedure
6. Study quality assessment checklist and procedure
7. Data extraction strategy
8. Synthesis of the extracted data

2.3 - Stage 2: Conducting the Review

After the review panel had accepted the protocol, the search process, consisting of several steps, can be initiated. The first step is to identify the resources, which would be used, define the search strings for the review and decide upon the study selection criteria. In the

current study these choices were based on the discussions with the review panel, literature and the results of the scoping study. In SLR the search strategy should be reported in full details, making it possible to replicate it.

ProQuest and EBSCO (Business Source Complete) were chosen for the current study. Since the review includes only peer-reviewed journal articles, these two databases seemed to be the best choice for providing a good number of relevant journals in the field of entrepreneurship, (e.g. Journal of Business Venturing; Entrepreneurship, Theory and Practice; International Small Business Journal). Relevant journals in the field of social management studies could also be found through these databases (e.g. Journal of Business Ethics).

The following search strings were chosen for the review (ab = abstract; ti = title):

- ab(sustainab*) AND ab(entrep*)
- ab(sustainab*) AND ab((((intrapr* OR "firm formation" OR "firm creation" OR "venture formation" OR "venture creation" OR "business formation" OR "business creation" OR start-up OR startup)))) NOT ab(entrep*)
- ti(sustainab*) AND ti(entrep*)
- ti(sustainab*) AND ti((((intrapr* OR "firm formation" OR "firm creation" OR "venture formation" OR "venture creation" OR "business formation" OR "business creation" OR start-up OR startup)))) NOT ti(entrep*)
- ti sustainab* AND ti entrep* NOT ab (sustainab* AND entrep*)

The next step of the review process is to define study selection criteria, which is important for identifying and selecting only the most appropriate and relevant study material from the search documents. Study selection procedure consists of studying the title, abstract and sometimes results section of the research paper. If the paper meets all the study selection criteria it is considered eligible for including into the review and requires full reading. Decisions, regarding inclusion or exclusion of certain articles, can be relatively subjective. Therefore, this stage of SLR can be performed by more than one reviewer. All the disputes of whether to include or exclude certain articles should be resolved by the review panel. Study selection is a multistage process. First the reviewer studies all the potentially relevant citations, identified in the search, by reading the abstracts and introduction

paragraphs. A more detailed evaluation is performed by checking the full texts of publications. After that the search narrows down to only relevant articles. It is important to note that in managerial studies sometimes the decisions on whether the review should include or exclude certain study are taken based on more subjective findings and conclusions of the author(s), which are not necessarily published in the abstract or a title of the study. This poses an extra challenge for the research and can be overcome by carefully studying all the findings of the study.

The following study selection criteria were used along this study:

Inclusion criteria

Only peer-reviewed journal articles ranking 3 and 4 (ABS2010 list) were included in this study. ABS2010 is a widely used ranking of business studies journals' impact factor. Including only articles ranking 3 and 4 is an established way of performing SLR. The scope of the search was 1999 and 2015 inclusive (the search did not return any relevant articles published before 1999). Only articles written in English were included in this review.

Exclusion criteria

Because of the variability in peer review process and their restricted availability books, book chapters, reports and conference papers were excluded from this study. Duplicate copies of the same research studies were also excluded from the review. It is important to mention that in many articles the word "sustainable" is used in a different meaning. It refers to "stable", e.g. "sustainable growth" refers to stable/steady growth and is not related to the concepts of sustainability used in this study. The articles where "sustainable" did not refer to sustainable development were excluded from the review.

Next phase of the review process is study quality assessment. It refers to the appraisal of a study's internal validity and the degree to which its design, conduct and analysis have minimized biases or errors (Tranfield et al., 2003). All papers that have been identified in the previous phase of the review process were judged against a set of predetermined criteria. The study quality assessment checklist that was used in this study can be seen in Table 4.

Table 4. Study Quality Assessment Checklist

Section of the paper	Question	Checklist
Introduction	Does introduction provide information about the connection between entrepreneurship and sustainability?	Yes No
	Is the objective of the article clearly formulated?	Yes No
Research method	Is methodology described clearly?	Yes No
Results	Are the study results clearly defined in this section?	Yes No
	Do they help the author to answer the research question of the current review?	Yes No

In the current research at the study selection phase a total of 2137 articles were identified in the selected databases (1430 articles in ProQuest and 707 articles in EBSCO Business Source Complete). These articles were exported to Excel programme. Out of 2137 articles, only those that correspond to ABS2010 rankings 3 and 4 were chosen. Since the author used two databases, naturally there were a lot of duplicates (similar search strings were used in both databases). Removing them was the second step of the process. At this step also the titles and the abstracts of the remaining articles were studied against the predetermined inclusion and exclusion criteria. If the abstract did not provide sufficient information for determining the validity of the article, the entire article was reviewed. After the second step 35 potentially relevant articles were selected. The third step was the deeper examination of the selected articles. After this point it was decided that only 27 articles are related to the research question.

The search process is illustrated in Figure 4. Complete list of the articles, which served as a basis for the current study, can be found in Appendix 1. It contains lists of the articles that were included to and excluded from the review after the final study quality assessment stage. The reasons for exclusion of certain articles are also provided in the Appendix 1.

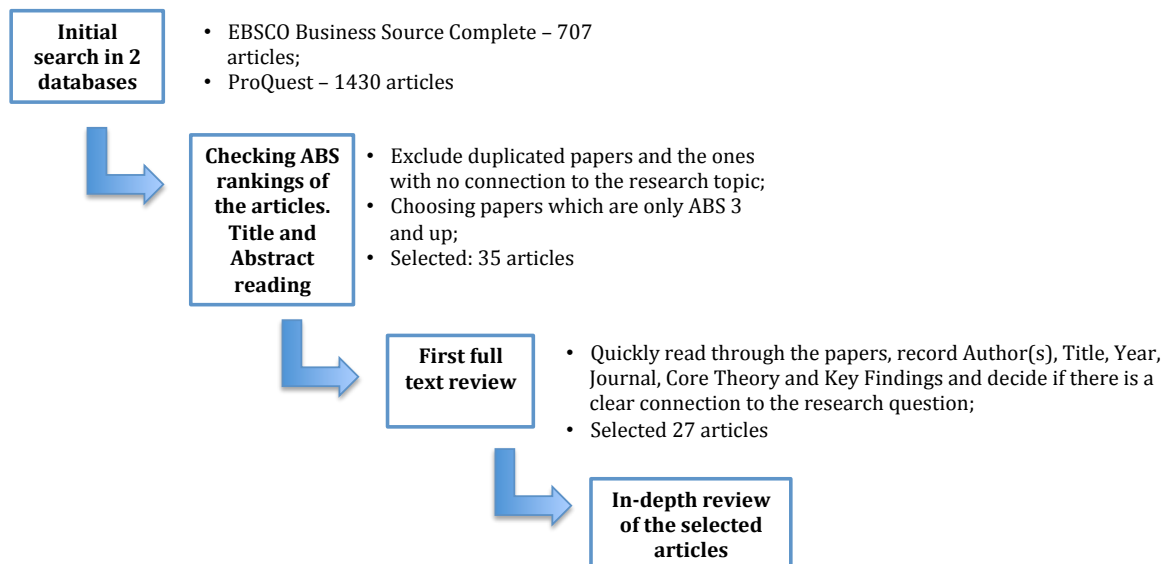


Figure 4. The Search Process

Table 5 provides a more detailed description of the results, achieved by the usage of different search strings.

Table 5. Results Achieved by the Usage of Different Search Strings

Search strings	Results
ProQuest: ab(sustainab*) AND ab(entrep*)	1080
ProQuest: ab(sustainab*) AND ab(((intrapr* OR "firm formation" OR "firm creation" OR "venture formation" OR "venture creation" OR "business formation" OR "business creation" OR start-up OR startup))) NOT ab(entrep*)	176
ProQuest: ti(sustainab*) AND ti(entrep*)	127
ProQuest: ti(sustainab*) AND ti(((intrapr* OR "firm formation" OR "firm creation" OR "venture formation" OR "venture creation" OR "business formation" OR "business creation" OR start-up OR startup))) NOT ti(entrep*)	47
EBSCO (Business Source Complete): ab(sustainab*) AND ab(entrep*)	635
EBSCO (Business Source Complete): ab(sustainab*) AND ab(((intrapr* OR "firm formation" OR "firm creation" OR "venture formation" OR "venture creation" OR "business formation" OR "business creation" OR start-up OR startup))) NOT ab(entrep*)	44
EBSCO (Business Source Complete): ti sustainab* AND ti entrep* NOT AB (sustainab* AND entrep*)	23
EBSCO (Business Source Complete): ti(sustainab*) AND ti(((intrapr* OR "firm formation" OR "firm creation" OR "venture formation" OR "venture creation" OR "business formation" OR "business creation" OR start-up OR startup))) NOT ti(entrep*)	5
Total	2137
Total of potentially relevant articles	35
Total after study quality assessment stage	27

The next phase in the review process is the data collection, which is done with the help of data extraction form. Usually data extraction forms contain the following information about the study: title, author(s), publication details, study features and specific information, notes on emerging themes and details on synthesis. According to Cochrane Collaboration's guidelines data extraction forms are used at least for three important purposes. First, the extraction form is a visual representation of the connection between the research question and the planned assessment of the study. Second, the form provides a historical record of the decisions that were made during the review process. Third, the form is a data-repository on which the analysis will be based (Clarke and Oxman, 2001). Data extraction forms are also used to reduce human error and bias. The content of the form depends on the nature of the study. The following data extraction form was used in this study.

Data Extraction Form

1. General information about the paper (Appendix 1, Table 1)
 - 1.1 Author(s), publication year
 - 1.2 Title
 - 1.3 Journal
 - 1.4 Search string(s) used to retrieve an article
 - 1.5 Database
2. Specific information about the paper (Appendix 2)
 - 2.1 Level of analysis, time frame, empirical setting, method(s)
 - 2.2 Core theory and key findings of the article
3. Researcher's analysis of the paper (Appendix 3)
 - 3.1 How is sustainability defined in the article? Is TBL approach used in the study?
Focus of sustainability
 - 3.2 Link between entrepreneurship and sustainability. Does entrepreneurship contribute to sustainable development? If yes, how?
 - 3.3 Researcher(s)/reviewer's' suggestions for future research

The second section of the data extraction form (Specific information about the paper) is meant to help answering research sub-question "How much is known about the link between entrepreneurship and sustainable development based on prior research?" The third section (Researcher's analysis of the paper) is meant to help answering the research sub-question: "What is known about the link between entrepreneurship and sustainable

development based on prior research?” Both second and third sections of the data extraction form help answering the research sub-question: “What kind of research agenda should be pursued in the future?”

Synthesis of the extracted data is the last phase of the search process. Research synthesis is a collective term for a number of methods used for summarizing, integrating, and, if possible, cumulating the findings of different studies on a topic or research question (Murlow, 1994). In SLR the extracted data should be synthesized in such a way that it provides an answer to the research question. The author of this study chose narrative review for synthesizing the results of the research. This review is presented in chapter 3.

2.4 – Research Bias

Research bias is a factor that can potentially negatively influence the accuracy of the study. That is why it has to be identified and handled in a proper way. There are several potential biases in the current study: researcher’s bias, publications’ bias, bias related to primary studies and bias to data acquisition and extraction processes. There is always a higher potential of the bias to validity when the research is conducted by an individual researcher. In order to minimise this risk the author of this research paid extra attention to performing certain tasks. For example, some of the articles’ abstracts were read twice to ensure that they meet the research requirements. Publication bias can come from the fact that positive results are more likely to end up in scientific publications than negative results. Defining the search strategy in the review protocol helped to minimize such risk. To improve the quality of the identified primary studies, it was decided that the review protocol’s search strategy would cover the maximum amount of publications possible. Two most known databases were used in the current study. Titles and abstracts were read with extra attention to make sure that only applicable studies would be included into the review. There is also a risk to validity at the stage of data extraction. Data extraction form in the review protocol is used to minimize the data extraction process bias.

The last stages of the review – reporting and dissemination are presented in the next chapters of the thesis.

Chapter 3 - Results and Analysis

This chapter provides the synthesis of the data that was extracted from the reviewed articles. The data analysis is based on three categories: general information about the paper (journal, publication years, etc.); specific information about the paper (methodology); and topic-specific analysis of the paper (focus of sustainability, definition of sustainability, suggestions for future research, etc.). The objective of the analysis is to answer the main research question “Does entrepreneurship contribute to sustainable development?” and the related sub-questions: “How much is known about the link between entrepreneurship and sustainable development based on prior research?”; “What is known about the link between entrepreneurship and sustainable development based on prior research?; and “What kind of research agenda should be pursued in the future?”. The author chose to use narrative synthesis approach for presenting and analysing the results, since the data is not so numerous (27 analysed articles) and ample.

3.1 - How Much is Known about the Link between Entrepreneurship and Sustainable Development Based on Prior Research?

As it was described above, two established electronic databases were used in the current review: ProQuest and EBSCO (Business Source Complete). The author did not set up any time limits, so the search results include all the articles on the specified topic that were ever listed in the selected databases. The relevant articles can be dated back only as far as to 1999 (Hart and Milstein). Thus, the review data frame is 1999 – 2015 (May). This shows that connection between sustainability and entrepreneurship is, indeed, an emerging field of study. First publications on the topic appeared on the end of 1990s. In their research “Global Sustainability and the Creative Destruction of Industries” Hart and Milstein (1999) admit that extractive and material-intensive industries of the modern world are not environmentally sustainable. Researchers see sustainability as a source of entrepreneurial opportunity and formulate the idea that those who see sustainable development as business opportunity “will drive the creative destruction process and build the foundation to compete in the twenty-first century”. Table 6 shows the distribution of the reviewed articles along the time frame. It is interesting to observe that the peak of the studies in sustainable entrepreneurship falls on 2010. This can be attributed to the fact that

in 2010 the Journal of Business Venturing, one of the leading entrepreneurship journals with an impact factor of 3,95, published a special issue, devoted to sustainable development and entrepreneurship. Starting from 2010 regular publications about sustainable entrepreneurship appear in the high-impact journals. Sustainable entrepreneurship clearly “has gained a foothold in mainstream entrepreneurship in recent years” (Binder and Belz, 2015).

Table 6. Distribution of the Reviewed Articles along the Time Frame

Year	Number of articles	Articles
1999	1	Hart and Milstein, 1999
2000	0	-
2001	0	-
2002	0	-
2003	0	-
2004	0	-
2005	1	Wheeler et al., 2005
2006	1	Elkington, 2006
2007	2	Cohen and Winn, 2007 Dean and McMullen, 2007
2008	0	-
2009	0	-
2010	8	Pacheco et al., 2010 Parrish, 2010 Hockerts and Wüstenhagen, 2010 Kuckertz and Wagner, 2010 Hall et al., 2010 York and Venkataraman, 2010 Patzelt and Shepher, 2010 Potts et al., 2010
2011	3	Shepherd and Patzelt, 2011 De Clerq and Voronov, 2011 Spence et al., 2011
2012	3	Pless and Appel, 2012 Santos, 2012 Griskevicius et al., 2012
2013	2	Zahra et al., 2013 Lourenço et al., 2013
2014	4	Vickers and Lyon, 2014 Ghuri et al., 2014 Gray et al., 2014 Nicolopoulou, 2014
2015 (until May)	2	Muñoz and Dimov, 2015 Pinkse and Groot, 2015
Total number of articles	27	

Most research in the area of sustainable entrepreneurship has been published in three special entrepreneurship journals, namely Journal of Business Venturing (9 articles), Entrepreneurship, Theory and Practice (4 articles) and International Small Business Journal (3 articles). Three articles are published in the Journal of Business Ethics and 2 articles in MIT Sloan Management Review. Also there is one article in each of six other journals (see Table 7 for details).

Table 7. Distribution of the Reviewed Articles along the Journals

Journal	Number of articles	Articles
Journal of Business Venturing	9	Cohen and Winn, 2007 Dean and McMullen, 2007 Pacheco et al., 2010 Parrish, 2010 Hockerts and Wüstenhagen, 2010 Kuckertz and Wagner, 2010 Hall et al., 2010 York and Venkataraman, 2010 Muñoz and Dimov, 2015
Entrepreneurship, Theory and Practice	4	Patzelt and Shepher, 2010 Shepherd and Patzelt, 2011 Zahra et al., 2013 Pinkse and Groot, 2015
International Small Business Journal	3	De Clerq and Voronov, 2011 Lourenço et al., 2013 Vickers and Lyon, 2014
Journal of Business Ethics	3	Spence et al., 2011 Pless and Appel, 2012 Santos, 2012
MIT Sloan Management Review	2	Hart and Milstein, 1999 Wheeler et al., 2005
Corporate Governance: An International Review	1	Elkington, 2006
Ecological Economics	1	Potts et al., 2010
Journal of Public Policy & Marketing	1	Griskevicius et al., 2012
International Marketing Review	1	Ghauri et al., 2014
Entrepreneurship & Regional Development: An International Journal	1	Gray et al., 2014
Journal of Small Business Management	1	Nicolopoulou, 2014
Total number of journals: 11	Total number of articles: 27	

Most of the reviewed articles are either fully conceptual or contain elements of a conceptual study, ultimately pursuing the development of applicable theoretical frameworks. This is representative of the early stages of a young research field, which lacks theoretical frameworks. This finding goes in line with the conclusions of Binder and Belz (2015), who claim that it is typical for a nascent, emerging research field to have a big proportion of conceptual articles and qualitative studies which are focused on theory development rather than on theory testing. Table 8 provides data about the research methods used in the reviewed articles.

Table 8. Research Methods Used in the Reviewed Articles

Research method	Number of articles	Articles
Conceptual	13	Hart and Milstein, 1999 Dean and McMullen, 2007 Pacheco et al., 2010 Patzelt and Shepher, 2010 Hockerts and Wüstenhagen, 2010 Potts et al., 2010 York and Venkataraman, 2010 De Clerq and Voronov, 2011 Shepherd and Patzelt, 2011 Santos, 2012 Griskevicius et al., 2012 Zahra et al., 2013 Nicolopoulou, 2014
Empirical	5	Parrish, 2010 (Qualitative) Pless and Appel, 2012 (Qualitative) Ghauri et al., 2014 (Qualitative) Vickers and Lyon, 2014 (Qualitative) Pinkse and Groot, 2015 (Qualitative)
Incl. Mixed (both quantitative and qualitative)	8	Wheeler et al., 2005 Elkington, 2006 Cohen and Winn, 2007 Kuckertz and Wagner, 2010 Spence et al., 2011 Lourenço et al., 2013 Gray et al., 2014 Muñoz and Dimov, 2015
Review	1	Hall et al., 2010
Total	27	

As the field grows and becomes more mature it is expected to see more empirical studies, especially quantitative research, based on variance models, hypotheses and large surveys.

Hockerts and Wüstenhagen (2010) also note that there is a need for deeper engagement with case studies with a longer time horizon that could justify a longitudinal perspective, rather than an “exemplary vignette” approach. This will eventually allow the field to adopt more of a learning and development outlook, and possibly shift from highlighting exemplary cases of social enterprises or social entrepreneurs as leaders – the approach which can be clearly observed in the area nowadays.

Overall it can be concluded that the field of sustainable entrepreneurship is in its initial stage of development. It already gained rather solid positions in the research agenda, but it still requires more studies. It is expected to have more empirical studies, especially quantitative research, based on variance models, hypotheses and large surveys. Even though the studies of sustainable entrepreneurship and the related concepts have been quite intense, there are few areas that still require profound basic studies. The next chapter describes more in details the topics that have been covered by the research so far.

3.2 - What is Known about the Link between Entrepreneurship and Sustainable Development Based on Prior Research?

Even though this area of study is still nascent, a number of topics about the link between entrepreneurship and sustainability have already received quite a wide coverage in the scientific community. One of the important conclusions that can be drawn from the analysis of the reviewed articles is that most of them “support the findings of other studies that demonstrated the existence of sustainability-driven entrepreneurship in practice” (Parrish, 2010).

Another quite important finding of the current study is that sustainable development often itself forms a source of entrepreneurial opportunity (e. g. Gram Vicas’ “Water and Sanitation Programme” (Pless and Appel, 2012); sustainability-driven enterprises described by Parrish (2010) and others). In other words, the environment provides a great opportunity for enterprise and invention, and it is now time to realize the importance of entrepreneurship to sustainability.

Many scientists agree that sustainable entrepreneurship plays an important role in achieving sustainable development. For example, in the introductory article to the special issue of the *Journal of Business Venturing*, devoted to sustainable development and entrepreneurship, Hall et al. (2010) describe sustainable entrepreneurship as “a panacea for transitioning towards a more sustainable society”. Cohen and Winn (2007) define sustainable entrepreneurship as “type of entrepreneurship where founders obtain economic gains while simultaneously improving local and global social and environmental conditions”.

Another topic, which is covered in many of the reviewed articles, is the existence and nature of the market imperfections that lead to opportunities for sustainable entrepreneurship. Dean and McMullen (2007) claim that “The key to achieving sustainable and environmental entrepreneurship lies in overcoming barriers to the efficient functioning of markets for environmental resources”. Pacheco et al. (2010) share this view and state that “The efficacy of entrepreneurial activity as an important force for social and ecological sustainability is dependent upon the nature of market incentives”. Based on the research the author concludes that market imperfections can become a source of entrepreneurial opportunity. For example, according to Cohen and Winn, (2007) “Market imperfections on one hand contribute to environmental degradation, and on the other hand, provide significant opportunities for the creation of radical technologies and innovative business models, which form the field of sustainable entrepreneurship”.

Another important topic, studied by many researchers, is related to entrepreneurs’ incentives for starting sustainable businesses. For example, many papers discuss the issues of entrepreneurial and business education and their potential for creating incentives for sustainable entrepreneurs. Analysis of these articles shows that “business schools encourage a “profit-first mentality”, meaning that “their ability to deliver sustainability-related education programs is unclear” (Lourenço et al., 2013). This finding leads to a conclusion that educational programmes need to undergo some changes in order to create conditions that would foster sustainable entrepreneurship initiatives.

3.3 - What Kind of Research Agenda should be Pursued in the Future?

Almost all the researchers agree that the field of sustainable entrepreneurship is in its initial stage of development and it requires more studies in general.

Speaking about methodology the following can be concluded. Most of the studies that have been done in this nascent research area are either fully conceptual or contain elements of a conceptual study, which is a specific feature of a new research field. Therefore, it is suggested to perform more empirical studies, especially quantitative research, based on variance models, hypotheses and large surveys.

On the content level there is a number of topics that require deeper analysis. As it was described in the previous chapters, market imperfections, leading to sustainable entrepreneurship opportunities, form a significant cluster of the suggested research material. For example, Cohen and Winn (2007) propose the following research questions: “How externalities (positive or negative) contribute to (or detract from) opportunity identification, exploitation and subsequent firm performance?” and “What is the role of contextual variables like demographic factors, country of origin, or prior work experience affecting entrepreneurs in identifying and exploiting sustainable entrepreneurship opportunities?” Speaking about the general nature of sustainable entrepreneurship these researchers also suggest the following topics: “What implications new venture creation has for social wealth?”; “What is the relationship between new venture creation and the Triple Bottom Line?”; and “What are the additional complexities of sustainable entrepreneurship?” These questions represent a summary of the future studies suggested by the authors of most of the reviewed articles. Looking at sustainability as a source of entrepreneurial opportunity is another area of suggested future studies. For example, “Under what conditions it is expected to see entrepreneurs pursue sustainable ventures?” (Hall et al., 2010). According to the researchers this question “has been, and, most likely, will remain one of the dominant questions in the field.” It is also important to mention the role of the public organizations in the sustainable entrepreneurship activities. Thus, “Under what conditions does public policy positively influence the incidence of sustainable entrepreneurship?” is another area for possible future studies, proposed by these researchers. The nature of sustainable entrepreneurship should also be researched more in detail. For example, traditionally sustainable entrepreneurship had been analysed through

case studies, which tend to cover only positive examples of sustainable enterprises. Hockerts and Wüstenhagen (2010) suggest performing studies that include larger samples and could provide a wider view on the field. According to these researchers comparative studies of large and small, or nascent and old firms operating in the similar areas could also yield interesting findings. They also pose the following important fundamental research question: “Are there indeed successful examples of the sustainability transformation of industries”.

Even though the studies of sustainable entrepreneurship and the related concepts have been quite intense, there are few areas that still require profound basic studies. For example, according to Santos (2012) “a more clear definition of social entrepreneurship should be provided”. The theory proposed by this researcher can serve as a basis for such study.

3.4 - Does Entrepreneurship Contribute to Sustainable Development? – Summary

The research question of the current study is “Does entrepreneurship contribute to sustainable development?” Naturally, no article provides a direct answer to this question. However, many articles are clearly related to this research topic and could provide quite consistent foundation for formulating certain conclusions. As it can be seen in Table 9, no article provides a negative answer. Most of the researchers agree that entrepreneurship has a great potential to contribute to sustainable development and a number of case studies illustrate this statement with real life examples.

There are a lot of entrepreneurial activities that pursue only one objective – generating profit (economic pillar of TBL), while ignoring social and environmental pillars (conventional entrepreneurship). There are also enterprises that are linked to two pillars of sustainable development (social and economic or environmental and economic). These enterprises are partly concerned about the issues of sustainability, but cannot be considered 100% contributors to sustainable development as they only include two aspects of TBL. Lastly, there are enterprises that pursue all three goals of sustainability (economic, social and environmental) and maintain them in balance. These are sustainable enterprises. Sustainable enterprises seem to provide a clear link between entrepreneurship and

sustainable development. Studying sustainable enterprises turned out to be the main focus of the current research, as most of the studied literature demonstrates the existence of sustainable entrepreneurship and proves that this form of entrepreneurship contributes to sustainable development (Dean and McMullen (2007); Cohen and Winn (2007); Hockerts and Wüstenhagen (2010); Parrish (2010); Shepherd and Patzelt (2011); and others). In Table 9 the author synthesized all the articles that support the opinion that entrepreneurship could contribute to sustainable development. Of course, these conclusions are rather relative and are based on author's own analysis of the articles.

It can be seen that most of the reviewed articles support a positive answer to the research question. However, it has to be remembered that the connection between entrepreneurship and sustainable development is still a nascent field of research, which is why it is impossible to provide any definite "yes or no" answer to the question whether entrepreneurship contributes to sustainable development. Most of the articles reviewed in the current study, however, tend to arrive to the conclusion that there is a correlation between certain forms of entrepreneurship (social, environmental and sustainable) and sustainable development. Sustainable entrepreneurship, in particular, has a great potential to contribute to sustainable development.

Table 9. Does Entrepreneurship Contribute to Sustainable Development? - Reviewed Articles' Viewpoint

Does entrepreneurship contribute to sustainable development?	Number of articles	Articles
The findings of the article support the positive answer to this question	23	Hart and Milstein, 1999 Dean and McMullen, 2007 Cohen and Winn, 2007 Patzelt and Shepher, 2010 Parrish, 2010 Hockerts and Wüstenhagen, 2010 Kuckertz and Wagner, 2010 Hall et al., 2010 York and Venkataraman, 2010 Wheeler et al., 2005 Spence et al., 2011 Shepherd and Patzelt, 2011 Pless and Appel, 2012 Santos, 2012 Griskevicius et al., 2012

		Lourenço et al., 2013 Zahra et al., 2013 Ghauri et al., 2014 Vickers and Lyon, 2014 Gray et al., 2014 Nicolopoulou, 2014 Pinkse and Groot, 2015 Muñoz and Dimov, 2015
Yes and No; it both contributes and destroys, depending on the circumstances	2	Pacheco et al., 2010 Potts et al., 2010
The article does not provide information that can be used to arrive to such conclusion	2	Elkington, 2006 De Clerq and Voronov, 2011
No, it does not	0	-
Total number of articles	27	

By the way of conclusion the following can be said about the research question and the related sub-questions:

Sub-question 1 - “How much is known about the link between entrepreneurship and sustainable development based on prior research?”

- This topic is an emerging field of study. Regular publications about this topic started appearing in high-impact journals only in the recent years.
- At the moment most research about sustainable entrepreneurship is published in three special entrepreneurship journals: Journal of Business Venturing; Entrepreneurship, Theory and Practice; and International Small Business Journal.
- Most of the publications about this topic are either fully conceptual or contain elements of a conceptual study, which is representative of the early stages of a young research field, which lacks theoretical frameworks.
- The field of sustainable entrepreneurship is in its initial stage of development and it requires more studies in general.
- There are also few areas in sustainable entrepreneurship studies that require profound basic studies.

Sub-question 2 - “What is known about the link between entrepreneurship and sustainable development based on prior research?”

- The existence of sustainability-driven entrepreneurship is proven in practice.

- Sustainable entrepreneurship is a type of entrepreneurship where founders obtain economic gains while simultaneously improving local and global social and environmental conditions.
- Sustainability issues nowadays form a source of entrepreneurial opportunity.
- There are market imperfections that lead to opportunities for sustainable entrepreneurship.
- The nature of such market imperfections is widely covered in the current research.
- Another topic in the area, which has been covered by research, is entrepreneurs' incentives for starting sustainable businesses.
- Educational programmes need to undergo some changes in order to create conditions that would foster sustainable entrepreneurship initiatives.

Sub-question 3 - “What kind of research agenda should be pursued in the future?”

- More empirical studies, especially quantitative research, based on variance models, hypotheses and large surveys.
- Studies that include not only positive examples of sustainable enterprises, but also negative ones.
- Studies that include larger samples of sustainable enterprises.
- Comparative studies of large and small, or nascent and old sustainable enterprises operating in the similar areas.
- More detailed studies of the entrepreneur's incentives for starting sustainable enterprises.
- Studies about sustainability as a source of entrepreneurial opportunity.
- The role of the public organizations in the sustainable entrepreneurship activities.
- The relationship between new venture creation and the Triple Bottom Line.
- Topics related to sustainable entrepreneurship. For example, providing a more clear definition of social entrepreneurship.

Main research question - “Does entrepreneurship contribute to sustainable development?”

The results of the review show that connection between entrepreneurship and sustainable development is still a nascent field of research. Therefore, it is impossible to provide any

definite “yes or no” answer to the question whether entrepreneurship contributes to sustainable development. The first wave of the publications in the field, however, tends to arrive to the conclusion that there is a correlation between certain forms of entrepreneurship (social, environmental and sustainable) and sustainable development. Sustainable entrepreneurship, in particular, has a great potential to contribute to sustainable development.

Chapter 4: Conclusions

The thesis presented a systematic literature review of the articles that study the relation between entrepreneurship and sustainable development seen from the Triple Bottom Line viewpoint. The objective of this thesis was to see whether entrepreneurship contributes to sustainable development and to answer the three related sub-questions: “How much is known about the link between entrepreneurship and sustainable development based on prior research?”; “What is known about the link between entrepreneurship and sustainable development based on prior research?”; and “What kind of research agenda should be pursued in the future?” The review was performed using the guidelines of The Cochrane Collaboration’s Cochrane Reviewers’ Handbook (Clarke and Oxman, 2001) and the National Health Service Centre for Reviews and Dissemination (2001) and it fulfilled the requirements of a systematic literature review. A total of 27 articles were included in this study. The thesis answered the research questions, which were formulated in the review protocol, and achieved the set objectives.

Summing up, the following can be said. Sustainable entrepreneurship is an emerging field of study. Regular publications about this topic started appearing in the high-impact entrepreneurship journals only in the recent years. Most of them are either fully conceptual or contain elements of a conceptual study, which is representative of the early stages of a young research field, which lacks theoretical frameworks. Naturally, this field of research requires more general studies. There is also a number of topics that need profound basic studies.

Some topics in the area already received wide coverage in the scientific community. The existence of sustainable entrepreneurship has been proven in practice. It is defined as a type of entrepreneurship where founders obtain economic gains while simultaneously improving local and global social and environmental conditions. The nature of market imperfections, leading to opportunities for sustainable entrepreneurship, is also widely covered in the current research.

Another topic, which received a lot of attention, is entrepreneurs’ incentives for starting sustainable businesses. One of the conclusions coming from such research is that

educational programmes need to undergo some changes in order to create conditions that would foster sustainable entrepreneurship initiatives. Another important theme, covered by the existing research, is that nowadays sustainability issues can form a source of entrepreneurial opportunity.

In the future the field would greatly benefit from more empirical studies, especially quantitative research, based on variance models, hypotheses and large surveys. Additionally, the area requires the following types of studies: studies that include not only positive examples of sustainable enterprises, but also negative ones; studies that include larger samples of sustainable enterprises; comparative studies of large and small, or nascent and old sustainable enterprises, operating in the similar areas. Entrepreneurs' incentives for starting sustainable enterprises is also an area that requires further research. Sustainability as a source of entrepreneurial opportunity is another theme that should be covered by scientific community. Other issues, related to sustainable entrepreneurship, also require further attention. For example, the role of the public organizations in the sustainable entrepreneurship activities and the relationship between new venture creation and the Triple Bottom Line should be studied more in detail.

Speaking about the main research question "Does entrepreneurship contribute to sustainable development?" the author of this review agrees with the opinion of Dean and McMullen (2007) that not all entrepreneurial behaviours result in improving environmental welfare. Naturally, some entrepreneurial activities result in environmental degradation and natural resource exploitation. Furthermore, proposing that entrepreneurs can help resolve market failures does not mean that all market failures may be resolved by entrepreneurial action or that all markets can create benefits for society and/or the environment. However, based on the results of the current review it can be concluded that connection between entrepreneurship and sustainable development is still a nascent field of research. Therefore, it is impossible to provide any definite "yes or no" answer to the question whether entrepreneurship contributes to sustainable development. The first wave of the publications in the field, however, tends to arrive to the conclusion that there is a correlation between certain forms of entrepreneurship (social, environmental and sustainable) and sustainable development. Sustainable entrepreneurship, in particular, has a great potential to contribute to sustainable development.

The research has the following limitations. It includes only peer-reviewed journal articles in English, ranking 3 and 4 (Academic Journal Quality Guide ABS2010), which are accessible in two listed digital databases (EBSCO (Business Source Complete) and ProQuest). This poses certain limitations and many of the articles, that potentially could be very relevant for the current research, were not included into the review. For example, the author excluded the journals that appeared after 2010, such as Journal of Social Entrepreneurship. Book chapters, reports and conference papers were also excluded. The articles that could potentially contribute to answering the research question, but did not qualify the study limitations' criteria are, for example, - "Sustainable Entrepreneurship: What It Is" (Binder, J. K., Belz, F., 2015. Handbook of Entrepreneurship and Sustainable Development) and "Linking Social Entrepreneurship and Sustainability" (Zhanga, D. D. and Swansona, L. A., 2015. Journal of Social Entrepreneurship). It is worth to pay particular attention to the fact that sustainable entrepreneurship is a nascent field. Because of this it is very hard for the articles in this area to end up in high-impact journals, since high-impact journals tend to focus on publishing articles from more mainstream and consolidated fields of study. Review of the articles that qualify criteria 1 and 2 from ABS2010 list and relevant journals that appeared after 2010 could provide an interesting angle to future research. An example of interesting research from lower-impact journals is "A Model for Predicting Intention towards Sustainable Entrepreneurship" (Koe, W. L. and Majid, I. A., 2014. International Journal of Information, Business and Management). In order to broaden the scope of the research it is recommended to perform the search also through different databases and possibly include studies in languages other than English.

The author of this master's thesis hopes that the systematic literature review and the conclusions of this study are a step forward to advance relevant and yet insufficient research in the young field of sustainable entrepreneurship.

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Appendices

Appendix 1 - General information about the articles used in the review

Table 1. Articles that are included in the review

Article ID (first author(s) and publication year); full list of authors	Title	Journal	Search string(s)	Database
Hart and Milstein, 1999 (S.L. Hart and M. B. Milstein)	Global Sustainability and the Creative Destruction of Industries	MIT Sloan Management Review	ab(sustainab*) AND ab(entrep*)	EBSCO Business Source Complete
Wheeler et al., 2005 (D. Wheeler, K. McKague, J. Thomson, R. Davies, J. Medalye, M. Prada)	Creating Sustainable Local Enterprise Networks	MIT Sloan Management Review	ab(sustainab*) AND ab(entrep*)	ProQuest
Elkington, 2006 (J. Elkington)	Governance for Sustainability	Corporate Governance: An International Review	ab(sustainab*) AND ab(entrep*)	ProQuest
Dean and McMullen, 2007 (T.J. Dean and J.S. McMullen)	Toward a theory of sustainable entrepreneurship: Reducing environmental degradation through entrepreneurial action	Journal of Business Venturing	ti(sustainab*) AND ti(entrep*)	ProQuest
Cohen and Winn, 2007 (B. Cohen and M.I. Winn)	Market imperfections, opportunity and sustainable entrepreneurship	Journal of Business Venturing	ab(sustainab*) AND ab(entrep*)	ProQuest
Pacheco et al., 2010 (D.F. Pacheco, T.J. Dean, D.S. Payne)	Escaping the green prison: Entrepreneurship and the creation of opportunities for sustainable development	Journal of Business Venturing	ab(sustainab*) AND ab(entrep*)	ProQuest

Patzelt and Shepher, 2010 (H. Patzelt and D.A. Shepherd)	Recognizing Opportunities for Sustainable Development	Entrepreneurship, Theory and Practice	ab(sustainab*) AND ab(entrep*)	EBSCO Business Source Complete
Parrish, 2010 (B.D. Parrish)	Sustainability-driven entrepreneurship: Principles of organization design	Journal of Business Venturing	ab(sustainab*) AND ab(entrep*)	ProQuest
Hockerts and Wüstenhagen, 2010 (K. Hockerts, R. Wüstenhagen)	Greening Goliaths versus emerging Davids - Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship	Journal of Business Venturing	ab(sustainab*) AND ab(entrep*)	ProQuest
Potts et al., 2010 (J. Potts, J. Foster, A. Straton)	An entrepreneurial model of economic and environmental co-evolution	Ecological Economics	ab(sustainab*) AND ab(entrep*)	ProQuest
Kuckertz and Wagner, 2010 (A. Kuckertz and M. Wagner)	The influence of sustainability orientation on entrepreneurial intentions - Investigating the role of business experience	Journal of Business Venturing	ab(sustainab*) AND ab(entrep*)	ProQuest
Hall et al., 2010 (J.K. Hall, G.A. Daneke, M.J. Lenox)	Sustainable development and entrepreneurship: Past contributions and future directions	Journal of Business Venturing	ab(sustainab*) AND ab(entrep*)	EBSCO Business Source Complete
York and Venkataraman, 2010 (J.G. York and S. Venkataraman)	The entrepreneur-environment nexus: Uncertainty, innovation, and allocation	Journal of Business Venturing	ab(sustainab*) AND ab(entrep*)	ProQuest
De Clercq and Voronov, 2011 (D. De Clercq and M. Voronov)	Sustainability in entrepreneurship: A tale of two logics	International Small Business Journal	ab(sustainab*) AND ab(entrep*)	ProQuest
Spence et al., 2011 (M. Spence, J.B.B. Gherib, V.O. Biwole)	Sustainable Entrepreneurship: Is Entrepreneurial will Enough? A North-South Comparison	Journal of Business Ethics	ab(sustainab*) AND ab(entrep*)	ProQuest

Shepherd and Patzelt, 2011 (D.A. Shepherd and H. Patzelt)	The New Field of Sustainable Entrepreneurship: Studying Entrepreneurial Action Linking 'What Is to Be Sustained' With 'What Is to Be Developed'	Entrepreneurship, Theory and Practice	ab(sustainab*) AND ab(entrep*)	EBSCO Business Source Complete
Pless and Appel, 2012 (N.M. Pless and J. Appel)	In Pursuit of Dignity and Social Justice: Changing Lives Through 100 % Inclusion--How Gram Vikas Fosters Sustainable Rural Development	Journal of Business Ethics	ab(sustainab*) AND ab(entrep*)	ProQuest
Santos, 2012 (F.M. Santos)	A Positive Theory of Social Entrepreneurship	Journal of Business Ethics	ab(sustainab*) AND ab(entrep*)	ProQuest
Griskevicius et al., 2012 (V. Griskevicius, S.M. Cantú, M. van Vugt)	The Evolutionary Bases for Sustainable Behavior: Implications for Marketing, Policy, and Social Entrepreneurship	Journal of Public Policy & Marketing	ti(sustainab*) AND ti(entrep*)	ProQuest
Lourenço et al., 2013 (F. Lourenço, O. Jones, D. Jayawarna)	Promoting sustainable development: The role of entrepreneurship education	International Small Business Journal	ab(sustainab*) AND ab(entrep*)	ProQuest
Zahra et al., 2013 (S.A. Zahra, L.R. Newey, Y. Li)	On the Frontiers: The Implications of Social Entrepreneurship for International Entrepreneurship	Entrepreneurship, Theory and Practice	ab(sustainab*) AND ab(entrep*)	EBSCO Business Source Complete
Ghauri et al., 2014 (P. Ghauri , M. Tasavori , R. Zaefarian)	Internationalisation of service firms through corporate social entrepreneurship and networking	International Marketing Review	ab(sustainab*) AND ab(entrep*)	EBSCO Business Source Complete
Vickers and Lyon, 2014 (I. Vickers and F. Lyon)	Beyond green niches? Growth strategies of environmentally-motivated social enterprises	International Small Business Journal	ab(sustainab*) AND ab(entrep*)	EBSCO Business Source Complete
Gray et al., 2014 (B. J. Gray, S. Duncan, J. Kirkwood and S. Walton)	Encouraging sustainable entrepreneurship in climate-threatened communities: a Samoan case study	Entrepreneurship & Regional Development: An International Journal	ab(sustainab*) AND ab(entrep*)	EBSCO Business Source Complete
Nicolopoulou, 2014 (K. Nicolopoulou)	Social Entrepreneurship between Cross-Currents: Toward a Framework for Theoretical Restructuring of the Field	Journal of Small Business Management	ab(sustainab*) AND ab(entrep*)	EBSCO Business Source Complete

Pinkse and Groot, 2015 (J. Pinkse and K. Groot)	Sustainable Entrepreneurship and Corporate Political Activity: Overcoming Market Barriers in the Clean Energy Sector	Entrepreneurship Theory and Practice	ab(sustainab*) AND ab(entrep*)	EBSCO Business Source Complete
Muñoz and Dimov, 2015 (P. Muñoz and D. Dimov)	The call of the whole in understanding the development of sustainable ventures	Journal of Business Venturing	ab(sustainab*) AND ab(entrep*)	EBSCO Business Source Complete

Table 2. Articles that were excluded from the review after quality assessment stage

Title, author(s), publication year); reasons for exclusion	Journal	Search string(s)	Database	Reasons for exclusion
Pimping climate change: Richard Branson, global warming, and the performance of green capitalism. S. Prudham, 2009	Environment and Planning	ab(sustainab*) AND ab(entrep*)	ProQuest	The article does not help to answer the research question.
The Influence of Personality Traits and Demographic Factors on Social Entrepreneurship Start Up Intentions. J.K.H. Nga and G. Shamuganathan, 2010	Journal of Business Ethics	ab(sustainab*) AND ab(entrep*)	ProQuest	The article studies what are the personality traits and demographic factors that influence social entrepreneurship start-up intentions. This data does not help to answer the research question.
Prone to Progress: Using Personality to Identify Supporters of Innovative Social Entrepreneurship. S. Wood, 2012	Journal of Public Policy & Marketing	ab(sustainab*) AND ab(entrep*)	ProQuest	Article doesn't talk much about sustainable entrepreneurship directly. It rather studies what kind of people support SE. This data does not help to answer the research question.

From impactful research to sustainable innovations for subsistence marketplaces. C. Nakata and M. Viswanathan, 2012	Journal of Business Research	ab(sustainab*) AND ab(entrep*)	EBSCO Business Source Complete	This article is a review of the conference. It contains a description of conference programme, brief description of the research that was presented and a very short explanation about the topic of the conference. It does not contain any original research.
Entrepreneurial processes in social contexts: how are they different, if at all? G.T. Lumpkin, T.W. Moss, D.M. Gras, S. Kato, A.S. Amezcua, 2013	Small Business Economics	ab(sustainab*) AND ab(entrep*)	ProQuest	This article is not applicable for the study. The article describes sustainability of solutions, not sustainable development.
Seeing Red Over Green: Contesting Urban Sustainabilities in China. C.P. Pow and H. Neo, 2013	Urban Studies	ab(sustainab*) AND ab(entrep*)	ProQuest	This article is not applicable for the study, because it is not related to the research question.
"I CARE ABOUT NATURE, BUT . . .": DISENGAGING VALUES IN ASSESSING OPPORTUNITIES THAT CAUSE HARM. D.A. Shepherd, H. Patzelt, R.A. Baron, 2013	Academy of Management Journal	ab(sustainab*) AND ab(entrep*)	ProQuest	This article is not applicable for the study, because it is not directly related to the research question.
Environmental certification as a buffer against the liabilities of newness and smallness: Firm performance benefits K. Djupdal and P. Westhead, 2015	International Small Business Journal	ab(sustainab*) AND ab(entrep*)	EBSCO Business Source Complete	This article is not applicable for the study, because it is not directly related to the research question.

Appendix 2 - Specific information about the articles used in the review. Data adapted from reviewed articles.

<p>Article</p> <p>Method(s); Level of analysis; Empirical setting; Time frame</p>	<p>Core theory and key findings</p>
<p>Hart and Milstein, 1999.</p> <p><i>Global Sustainability and the Creative Destruction of Industries</i></p> <p>Conceptual exploratory research (secondary data).</p> <p>The authors develop a framework of new metrics that help managers evaluate their organizations' current performance and realize new, sustainable business opportunities.</p> <p>The article was published in 1999. No other data on the time frame is provided.</p>	<p><u>Background for the research</u></p> <p>The emerging challenge of global sustainability is a catalyst for a new round of creative destruction that offers unprecedented opportunities. Today's cooperations can seize the opportunity for sustainable development, but they must look beyond continuous, incremental improvements.</p> <p><u>Key findings</u></p> <p>To capture sustainable opportunities managers must fundamentally rethink their prevailing views about strategy, technology, and markets. Focused attention through three lenses – consumer, emerging and survival economies – will enable them to see new business opportunities. New metrics focused on global sustainability will help managers identify the opportunities that will lead managers to those innovations. Managers who treat sustainable development as an opportunity will drive the creative destruction process and build the foundation to compete in the twenty-first century.</p>
<p>Wheeler et al., 2005.</p> <p><i>Creating Sustainable Local Enterprise Networks</i></p> <p>Empirical mixed study. Exploratory research.</p> <p>Research covers 50 cases that involve apparently successful, self-reliant and sustainable enterprise activities in developing countries (Africa, Latin America, Asia and international enterprises) in various sectors.</p>	<p><u>Background for the research</u></p> <p>The researchers complement the “bottom of the pyramid” (BOP) approach and develop a framework called “the Sustainable Local Enterprise Networks” (SLEN).</p> <p>According to BOP approach multinational corporations and their partners in developing countries sell goods and services to the world's poor and thus play a special role in reducing poverty because they can generally mobilize greater resources and are better positioned to transfer knowledge, build partnerships and commercial infrastructure and transfer products and services between developed and developing countries.</p> <p>Based on BOP approach researchers suggest a complementary SLEN framework which describes how sustainable enterprise</p>

<p>Time frame: September 2005 -June 2005</p>	<p>in developing countries can thrive in a trust-based, densely networked environment – a kind of environment that may be increasingly relevant to business in general.</p> <p><u>Key findings</u> In developing countries, examples of successful sustainable enterprise often involve informal networks that include businesses, not-for-profit organizations and communities.</p>
<p>Elkington, 2006. <i>Governance for Sustainability</i></p> <p>Empirical mixed study. This paper is a review of increasingly complex cross-connects between the rapidly mutating governance agenda and the burgeoning world of corporate responsibility, social entrepreneurship and sustainable development. The review contains author’s forecast for the future development of the sustainability issues in the Global economy.</p> <p>The review consists of three parts:</p> <ol style="list-style-type: none"> 1) Review of SustainAbility’s work (from 1987 till 2006) in the area of corporate governance (SustainAbility is a strategic and advisory firm that works to catalyse business leadership on sustainability. The company was co-founded by the author in 1987). 2) Review of the three great waves of societal pressure on business since 1960, and the author’s forecast for the future. 3) Review and analysis of some headline conclusions that emerged in the field of corporate governance from the World economic Forum’s 2006 annual summit in Davos. <p>The study was published in 2006, no other data on the time</p>	<p><u>Background for the research</u> The aim of corporate governance is to find answers to such questions as “what business is for; in whose interests companies should be run, and how?” The better is the system of corporate governance, the greater the chance for a society to progress towards genuinely sustainable capitalism.</p> <p><u>Key findings</u> The three waves of public pressure that shaped the environmental agenda since 1960s:</p> <ol style="list-style-type: none"> 1) “Limits” pressure wave (early 1960s) – a wave of environmental legislation that swept across the OECD region and industry went into compliance mode. 2) “Green” wave (1988 – 1991) caused by such problems as ozone depletion and rainforest destruction and resulted in a new movement – “green consumerism”. 3) “Globalisation” pressure wave began in 1999 with protests against the WTO, World Bank, IMF, G8, World Economic Forum and other institutions, which called attention to the critical role of public and international institutions in promoting – or hindering – sustainable development. <p>The fourth and fifth waves are expected to follow (on shorter time-frequencies and – possibly – with less dramatic fluctuations in public interest). These waves would focus on such themes as creativity, breakthrough innovation, entrepreneurial solutions to great challenges like pandemics and climate change, and the rapid scaling and replication of successful solutions.</p> <p>The author presents his summary of the Davos 2006 summit in a form of a PLOT model, which presents four possible development scenarios and accompanying strategies.</p> <ol style="list-style-type: none"> 1) P – penguin. Companies increasingly huddle together for comfort – and survival – in increasingly extreme conditions. At one end, they crouch behind defensive walls provided by their industry federations and lobbying groups, at the other (more

<p>frame is provided.</p>	<p>proactive) and they create networking organisations like Business for Social Responsibility, Business in the Community, CSR Europe, the World Business Council for Sustainable Development and the UN Global Compact, or get into fields like “venture philanthropy”. In terms of global governance, Penguins tend to prefer flexible, voluntary arrangements – until they run into problems in such areas as intellectual property or security. As far as corporate governance goes, however, they are happy to conform, whether to the Sarbanes-Oxley Act or whatever else governments may require, as long as everyone else does the same.</p> <p>2) L – lungfish. If the pressures intensify, the companies would be more willing to “cocoon”, despite the inevitable risks. Some companies will opt out of particular markets, some countries will default to protectionism.</p> <p>In terms of global and corporate governance alike, the Lungfish strategy is minimalist. But companies or countries that wall themselves off from the real world risk implosion when reality re-engages, as with the collapse of the Berlin Wall and then Communism. In the same way, the “Beyond the Limits” conditions of the new century will drive waves, tsunamis of “creative destruction” in industry after industry.</p> <p>3) O – owl. A new breed of innovators, entrepreneurs, venture capitalists and investment bankers would look for new opportunities thrown up by the shift into a resource-constrained, “Beyond the Limits” world. On global and corporate governance, Owls detest and fight red tape and over- regulation, but tend to be pragmatic. These pioneers are exploring the early expressions of some of the greatest markets of the twenty-first century.</p> <p>4) T – termites. This decade will see the urban population surpassing the 50 per cent threshold worldwide, with megacities and fast-growing smaller cities facing a growing range of economic, social and environmental challenges. Time for an era of innovation, disruption and “creative construction”. But also for much greater attention to the global and corporate governance frameworks and processes that ensure that basic rules of behaviour are followed.</p>
<p>Dean and McMullen, 2007. <i>Toward a theory of sustainable entrepreneurship: Reducing environmental degradation through entrepreneurial action</i></p> <p>Conceptual study (secondary data –entrepreneurship, environmental and welfare economics literatures that illustrate five categories of market failures: public goods, externalities, monopoly power, inappropriate government intervention, and imperfect information). Theory</p>	<p><u>Background for the research</u></p> <p>The key to achieving sustainable and environmental entrepreneurship lies in overcoming barriers to the efficient functioning of markets for environmental resources.</p> <p><u>Key findings</u></p> <p>Researchers articulated a conception of sustainable entrepreneurship and outlined how entrepreneurial action can overcome barriers to the efficient functioning of markets to contribute to the more efficient use of environmental and natural resources and the development of a more ecologically sustainable economy. Environmental entrepreneurs alleviate environmentally relevant market failures through the discovery, evaluation, and exploitation of opportunities present in market failure. This</p>

<p>development.</p> <p>The authors study the concept of environmental entrepreneurship, offering conceptual precision in developing a theoretical explanation for why environmental problems arise and persist and how sustainable entrepreneurship can reduce or eliminate them.</p> <p>Article was published in 2007. No other data on the time frame is provided.</p>	<p>conceptualization is based on a number of arguments which may be usefully summarized as follows:</p> <ol style="list-style-type: none"> 1) Market failures represent a source of entrepreneurial opportunities – that is, unmet market demand exists as a result of discrepancies between private and social costs. 2) Because of the natural characteristics of environmental resources they are particularly susceptible to market failure and degradation – as a result, they represent a substantial source of entrepreneurial opportunity. 3) Because the exploitation of these opportunities requires the elimination of barriers to the efficient functioning of markets, entrepreneurial action to exploit market failures serves to move markets toward states of superior efficiency. 4) The exploitation of environmentally relevant market failures reduces environmental impacts and moves markets closer to sustainability. 5) Finally, the categories of market failure discussed in the literature (public goods, externalities, monopoly power, inappropriate government intervention, and imperfect information) provide a foundation from which to gain a better understanding of the nature of these barriers and the manner in which entrepreneurial action may overcome them for economic gain.
<p>Cohen and Winn, 2007. <i>Market imperfections, opportunity and sustainable entrepreneurship</i></p> <p>Empirical mixed study.</p> <p>Researchers study the influence of the four types of market imperfections (inefficient firms, externalities, flawed pricing mechanisms and information asymmetries) on sustainability.</p> <p>Article was published in 2004. No other data on the time frame is provided.</p>	<p><u>Background for the research</u></p> <p>Market imperfections on one hand contribute to environmental degradation, and on the other hand, provide significant opportunities for the creation of radical technologies and innovative business models, which form the field of sustainable entrepreneurship (type of entrepreneurship where founders obtain economic gains while simultaneously improving local and global social and environmental conditions).</p> <p><u>Key findings</u></p> <p>The current trend of global environmental degradation is associated with four types of market imperfections (namely inefficient firms, externalities, flawed pricing mechanisms, and imperfectly distributed information). Each of these market imperfections creates entrepreneurial opportunities, which, if identified and exploited, create entrepreneurial rents for the innovating firms, improve market performance, and introduce more sustainable interactions with the natural environment.</p>
<p>Pacheco et al., 2010. <i>Escaping the green prison: Entrepreneurship and the creation of opportunities for sustainable development</i></p> <p>Conceptual exploratory research. Theory development.</p>	<p><u>Background for the research</u></p> <p>The efficacy of entrepreneurial activity as an important force for social and ecological sustainability is dependent upon the nature of market incentives. This limitation is sometimes explained by the metaphor of the prisoner's dilemma, which the researchers term the green prison. In this prison, entrepreneurs are compelled to environmentally degrading behaviour due to the divergence between individual rewards and collective goals for sustainable development. Entrepreneurs, however, can</p>

<p>The article was published in 2010. No other data on the time frame is provided.</p>	<p>escape from the green prison by altering or creating the institutions—norms, property rights, and legislation—that establish the incentives of competitive games.</p> <p><u>Key findings</u> Complete understanding of sustainable entrepreneurship requires consideration of the means by which entrepreneurs transform economic institutions, and thereby escape the green prison that is intrinsic to many natural and environmental resource problems.</p>
<p>Patzelt and Shepher, 2010. <i>Recognizing Opportunities for Sustainable Development</i></p> <p>Conceptual study.</p> <p>Research was published in 2010. No other data on the time frame is provided.</p>	<p><u>Background for the research</u> The current explanations of opportunity recognition, based on entrepreneurial knowledge and economic motivation, are insufficient for modelling the recognition of opportunities for sustainable development.</p> <p><u>Key findings</u> Entrepreneurs are more likely to discover sustainable development opportunities the greater their knowledge of natural and communal environments become, the more they perceive that the natural and communal environment in which they live is threatened, and the greater their altruism toward others becomes. Authors propose that entrepreneurial knowledge plays a central role by moderating these effects.</p>
<p>Parrish, 2010. <i>Sustainability-driven entrepreneurship: Principles of organization design</i></p> <p>Empirical research. Comparative field study (interviews (with multiple organization stakeholders), primary and secondary data)</p> <p>Cases in North and Central America, Europe, East Africa, and Asia-Pacific. Industries: marketing and finance, import-export and wholesaling, training, and hospitality. Enterprises were chosen based on a strict set of criteria to ensure that they were successful (each was between 5 and 15 years old, and was stable or growing) and embodied sustainability-</p>	<p><u>Background for the research</u> The expertise required for the success of sustainable enterprise differs depending on entrepreneurial values and motives.</p> <p><u>Key findings</u> Quite important conclusion of this research is that it supports the findings of other studies that demonstrated the existence of sustainability-driven entrepreneurship in practice.</p> <p>The research highlights the difference between opportunity-driven and sustainability-driven entrepreneurs. Opportunity-driven entrepreneurs' primary motivation is to build a profitable venture. Sustainability is viewed as a market opportunity and serves as a means to achieving profit objectives. Sustainability-driven entrepreneurs' primary motivation is to contribute to sustainability, whereas a viable, profitable enterprise is a means to that end. The research suggests that in order to understand the contributions entrepreneurship can make to sustainable development researchers must be willing to look beyond those entrepreneurs motivated primarily by self-interested profit seeking. If sustainability entrepreneurship is to be</p>

<p>driven values. The aim of the research was to investigate the organization design expertise necessary for sustainability-driven entrepreneurs to succeed in a competitive market context.</p> <p>The article was published in 2010, no other data about the time frame is provided.</p>	<p>supported in practice, the implication is that aspiring sustainability entrepreneurs require more than the right set of values and motives to succeed — they also require the right practical expertise. The design principles identified and described in this study represent one aspect of this expertise (principles of resource perpetuation, benefit stacking, strategic satisficing, qualitative management, and worthy contribution). This study also demonstrates the value of research aimed at identifying design constants construed as generative rules of action rather than prescriptive technical-rational design rules.</p>
<p>Hockerts and Wüstenhagen, 2010.</p> <p><i>Greening Goliaths versus emerging Davids - Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship</i></p> <p>Conceptual study. Theory development. The article was published in 2010, no other data about the time frame is provided.</p>	<p><u>Background for the research</u></p> <p>In the early stages of an industry's sustainability transformation, new entrants ('Emerging Davids') are more likely than incumbents to pursue sustainability-related opportunities. Incumbents react to the activities of new entrants by engaging in corporate sustainable entrepreneurship activities. While these 'Greening Goliaths' are often less ambitious in their environmental and social goals, they may have a broader reach due to their established market presence.</p> <p><u>Key findings</u></p> <p>Both the emergence of Davids as well as a process of "Greening Goliaths" can result in a transformation of an industry towards sustainability. The initial phase is characterized by sustainability initiatives of idealistic "Davids". In a second phase, some pioneering "Goliaths", for example retailers with a higher quality positioning, mimic some of the David initiatives and try to bring them into their mainstream distribution channels. In isolation, none of these two developments would necessarily lead to sustainable transformation of mainstream markets, because "Davids" tend to get stuck in their high-quality, low-market penetration niche, while Goliaths have an inherent tendency to react to cost pressures by lowering the sustainability quality of their offerings. However, there is an increasing evidence for a next stage of development on both paths.</p> <p>The researchers suggest the following policy implications. There is a need for an ambidextrous innovation policy for sustainability (ambidextrous organizations are those that master the art of simultaneously pursuing incremental and disruptive innovation). Similarly, achieving the sustainable transformation of an industry requires a fine-tuned mix of disruptive and incremental innovation, which can be promoted if policymakers understand the nuanced interplay of Emerging Davids and Greening Goliaths, rather than single-mindedly focusing on only one of these paths while neglecting the other. Arguably, policymakers have a tendency to favour incumbents over entrepreneurial start-ups, so designing</p>

	sustainability policies with an entrepreneurial perspective in mind is a good start, but this paper suggests that smart innovation policies should try to leverage cooperation and competition between Davids and Goliaths.
<p>Potts et al., 2010.</p> <p><i>An entrepreneurial model of economic and environmental co-evolution</i></p> <p>Conceptual study. Preliminary model development.</p> <p>Researchers outline a co-evolutionary model of the dynamics of economic and ecological systems as connected by entrepreneurial behaviour.</p> <p>The article was published in 2010, no other data about the time frame is provided.</p>	<p><u>Background for the research</u></p> <p>There is a co-evolutionary model of economic and environmental systems connected, both negatively and positively, by entrepreneurial endeavour. In this model “economic-only” entrepreneurship and associated innovations tend to have negative environmental and ecological effects. But these, in turn, create new entrepreneurial opportunities over several domains: political, cultural, creative and economic.</p> <p><u>Key findings</u></p> <p>Elements of the model:</p> <ol style="list-style-type: none"> 1) The environmental degradation is, ultimately, due to the use of free energy flow to drive economic activities that yield goods and services to growing populations. 2) The model must recognise that environmental resource depletion and degradation in ecological systems and services present new opportunities for creative human actions. 3) The model must recognise that increasing complexity in the set of institutional rules that are operative in an evolving economic system is an outcome of the co-evolving economic–ecological process. 4) The model must recognise that the political arena in such a co-evolving world is one of several possible spaces where endogenous action can occur in response to changes in current or anticipated environmental circumstances. <p>There are four modes of entrepreneurial response to environmental problems/opportunities:</p> <ol style="list-style-type: none"> 1) The lead response emerging in the form of social or cultural entrepreneurship in the form of corporate leadership, celebrity leadership, or fashion leadership, or in general the process by which a local initiative has wider effect. The socio-cultural mechanism works via seeking to change beliefs, preferences and behaviours via an imitation or social learning mechanism. 2) Environmental problems present political opportunities to the entrepreneurial politician or law-maker if a socio-cultural meso rule concerning action to solve an environmental problem has been widely adopted. 3) Entrepreneurial mechanism concerns scientists, inventors, artists, philosophers and writers (creative class). 4) Entrepreneurial mechanism concerns the economic agent engaged in seeking to create value by the discovery, origination and realization of new market opportunities created by new environmental problems.

<p>Kuckertz and Wagner, 2010. <i>The influence of sustainability orientation on entrepreneurial intentions - Investigating the role of business experience</i></p> <p>Empirical mixed study. Exploratory. Surveys performed among students.</p> <p>Sample of 712 students and alumni of science and engineering degree programmes at the Technical University of Munich (TUM) and business students at Würzburg and Strasbourg universities, which operate in a similar institutional setting as TUM.</p> <p>Time frame: 2006-2009</p>	<p><u>Background for the research</u></p> <p>Hypothesis 1. There will be a positive relationship between individuals' sustainability orientation and their entrepreneurial intention. Hypothesis 2. The positive relationship between an individual's sustainability orientation and entrepreneurial intention will be stronger for individuals inexperienced in business matters than for experienced individuals.</p> <p><u>Key findings</u></p> <p>It is concluded that sustainability orientation influences entrepreneurial intention, but not for every group of individuals. Business experience destroys the positive relationship between sustainability orientation and entrepreneurial intention and this has important implications for entrepreneurship education and policy.</p> <p>To nurture sustainable entrepreneurship, it is suggested that educators take at least the following measures (ordered by priority).</p> <p>1) Paying special attention to master's degree, executive and continuing education programmes in order to close the gap opened by business experience. Such programmes should aim to link participants' entrepreneurship experience more strongly with sustainability-related content. It is also essential to include more cases of successful sustainable entrepreneurship in courses targeting experienced individuals (thus providing them with stronger entrepreneurial motivation). Providing a platform in class for entrepreneurs committed to pursuing sustainable business models will also enhance the level of entrepreneurial intention.</p> <p>2) The potential of market imperfections to reveal sustainable entrepreneurial opportunities should be a standard component of every undergraduate curriculum. At the same time, it is essential that not only the business student fraction but also a wider congregation of people concerned about sustainability is awakened to the additional potential brought by sustainable entrepreneurship.</p>
<p>Hall et al., 2010.</p> <p><i>Sustainable development and entrepreneurship: Past contributions and future directions</i></p> <p>Literature review - overview of 6 articles (three theoretical and three empirical ones), published in the special issue of</p>	<p><u>Background for the research</u></p> <p>A fundamental transformation is needed to reduce detrimental environmental and societal impacts created by our currently unsustainable business practices. While the case for entrepreneurship as a panacea for transitioning towards a more sustainable society is alluring, there remain major gaps in the knowledge of whether and how this process will actually unfold.</p>

<p>Journal of Business Venturing (25, 2010), which is devoted to sustainable development and entrepreneurship.</p> <p>All analysed articles were published in 2010.</p>	<p><u>Key findings</u></p> <p>The article provides an overview of studies exploring the role of entrepreneurship for sustainable development. It also summarizes the studies presented in the special 25th issue of the Journal of Business Venturing and continue with suggestions for further research:</p> <ol style="list-style-type: none"> 1) To what extent entrepreneurs have the potential for creating sustainable economies, how they are motivated and incentivized, if there are structural barriers to the capture of economic rents for sustainable ventures and if sustainability-oriented entrepreneurs differ from traditional entrepreneurs – all these issues still remain open questions. 2) Further research is also needed to explore the role of public policy and how it may positively influence the incidence of sustainable entrepreneurship. 3) Another rich area for further research could explore conditions where entrepreneurial ventures rather than incumbent firms provide sustainable products and services. 4) Further research could explore entrepreneurship as welfare-creating versus welfare-destroying, once all externalities are factored in, or the downside to entrepreneurship such as “unsustainable” rent-seeking by entrepreneurs that chose to enter "dirty" industries vacated by incumbents. 5) What are the conditions where entrepreneurship simultaneously creates economic growth, while advancing environmental objectives and improving social conditions? 6) Additionally researchers suggest that the role of entrepreneurs within impoverished communities from developing economies should also be studied further. This is the topic that is not covered by this special issue of the Journal of Business Venturing.
<p>York and Venkataraman, 2010. <i>The entrepreneur-environment nexus: Uncertainty, innovation, and allocation</i></p> <p>Conceptual exploratory study.</p> <p>Model construction.</p> <p>The authors examine environmental degradation through the lens of entrepreneurship theory and offer a framework, which relates the fundamental drivers of entrepreneurship and environmental degradation.</p>	<p><u>Background for the research</u></p> <p>Uncertainty, innovation and resource allocation all have direct bearing on environmental problems. Under certain conditions entrepreneurs are likely to supplement, or surpass, the efforts of governments, NGOs and existing firms to achieve environmental sustainability. Entrepreneurs can contribute to solving environmental problems through helping extant institutions in achieving their goals and by creating new, more environmentally sustainable products, services and institutions.</p> <p><u>Key findings</u></p> <ol style="list-style-type: none"> 1) Environmental issues clearly represent the type of opportunity that entrepreneurs have a particular orientation toward. 2) Environmental entrepreneurship is most effective in for-profit, new ventures. The environmental uncertainty translates

<p>Researchers also provide illustrative examples of environmentally focused firms and industries.</p> <p>The article was published in 2010, no other data on the time frame is provided.</p>	<p>into business uncertainty for existing firms, making them unlikely to react. The remedy for the situation then is the creative destruction of harmful industries by environmental entrepreneurship.</p> <p>3) The more uncertain and intractable the environmental problem the society faces, the greater likelihood that entrepreneurs can make a contribution to resolving it.</p>
<p>De Clerq and Voronov, 2011.</p> <p><i>Sustainability in entrepreneurship: A tale of two logics</i></p> <p>Conceptual study.</p> <p>The article theorizes how the characteristics of the entrepreneurial field, as well as entrepreneur characteristics and actions, influence the legitimacy derived from adhering to the field-prescribed balance between sustainability and profitability.</p> <p>The study was published in 2011, no other data on the time frame is provided.</p>	<p><u>Background for the research</u></p> <p>There is a positive relationship between field-imposed preferences with respect to the relative balance between sustainability and profitability logics, and the legitimacy that entrepreneurs derive from adhering to the field-prescribed balance</p> <p><u>Key findings</u></p> <p>The balancing of sustainability and profitability is an important aspect of entrepreneur legitimation.</p>
<p>Spence et al., 2011.</p> <p><i>Sustainable Entrepreneurship: Is Entrepreneurial will Enough? A North-South Comparison</i></p> <p>Empirical mixed study.</p> <p>Exploratory case study (interviews).</p> <p>Small samples of Small and Medium Enterprises (SME) from various sectors in Canada, Cameroon, Tunisia. Total of 44 cases were used in the study.</p>	<p><u>Background for the research</u></p> <p>The research combines neo-institutional and entrepreneurship theories into an integrative conceptual model in order to determine the fundamentals of sustainable entrepreneurship in an international perspective and to study the potential impact of economic, institutional, and cultural dimensions upon diverse level of sustainability in SMEs.</p> <p><u>Key findings</u></p> <ol style="list-style-type: none"> 1) Entrepreneurs' individual values are crucial in all three countries. 2) Socio-cultural specificities and institutional realities can, however, be more or less inductive to the adoption of sustainable practices in SMEs. 3) External stimuli are needed in Tunisia and Cameroon to reach the same environmental involvement as found in Canada. 4) Support programmes to assist SMEs with the adoption of sustainable practices and communication about the issue have

<p>Time frame of the study is not described in the publication. The research was published in 2011.</p>	<p>to be tailored to the entrepreneur's motives, the firms' levels of openness to sustainability, the socio-cultural practices already embedded, and the countries' priorities.</p>
<p>Shepherd and Patzelt, 2011. <i>The New Field of Sustainable Entrepreneurship: Studying Entrepreneurial Action Linking 'What Is to Be Sustained' With 'What Is to Be Developed'</i></p> <p>Conceptual research.</p> <p>The study was published in 2011, no other data on the time frame is provided.</p>	<p><u>Core theory</u></p> <p>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.</p> <p><u>Key findings</u></p> <p>The key finding of the research is the definition of sustainable entrepreneurship.</p>
<p>Pless and Appel, 2012. <i>In Pursuit of Dignity and Social Justice: Changing Lives Through 100 % Inclusion--How Gram Vikas Fosters Sustainable Rural Development</i></p> <p>Empirical case study (secondary and primary data).</p> <p>Main focus of the research - analysis of Gram Vikas' "Water and Sanitation Programme".</p> <p>Research also describes other Gram Vikas' areas of action (Community Health; Community Education; Livelihoods; Sustainable Energy) and discusses organisation's management challenges in the areas of finance, personnel management and scaling up.</p> <p>The research took place between 2005 and 2012 in Orissa (one of India's poorest states).</p>	<p><u>Background for the research</u></p> <p>The innovative approach of 100% inclusion fosters creation of the democratic, self-governing management systems.</p> <p><u>Key findings</u></p> <p>The research provides an example of a social entrepreneurial effort that contributes to the UN Millennium goals through a humanistic concept of 100% inclusion. It describes how such effort helps to improve health, empower women and break the vicious circle of poverty. It shows how to achieve better living conditions at the individual level and bring dignity to the poor, while fostering social justice and change at the societal level (i.e. how to create sustainable change at the local level through democratic, self-governing management systems).</p>

<p>Santos, 2012. <i>A Positive Theory of Social Entrepreneurship</i></p> <p>Exploratory theoretical research. Theory development.</p> <p>Author analyses various academic data on social entrepreneurship and proposes a conceptual framework that helps to explain the phenomenon of social entrepreneurship and its role in the functioning of modern society.</p> <p>The research was published in 2012. No other data on the time frame is provided.</p>	<p><u>Background for the research</u></p> <p>Social entrepreneurship is the pursuit of sustainable solutions to neglected problems with positive externalities.</p> <p><u>Key findings</u></p> <p>The process of social entrepreneurship enables the second invisible hand of the economic system (as compared to Adam Smith's ideas of benevolent invisible hand), which is based on other-regarding rather than self-interest. Thus, social entrepreneurs drive the economy closer to an efficient outcome by systematically identifying neglected problems with positive externalities and developing sustainable solutions to incorporate those externalities into the economic system.</p> <p>Author develops conceptual framework that helps to explain the phenomenon of social entrepreneurship and its role in the functioning of modern society. This framework, for example, avoids normative classifications of what is social and what is not. This framework is meant to describe and predict the reality in which social entrepreneurs operate – a topic that traditional entrepreneurship theory seems ill-suited to describe. The theory includes the following propositions: 1) The distinctive domain of action of social entrepreneurship is addressing neglected problems in society involving positive externalities; 2) Social entrepreneurs are more likely to operate in areas with localized positive externalities that benefit a powerless segment of the population; 3) Social entrepreneurs are more likely to seek sustainable solutions than to seek sustainable advantages; 4) Social entrepreneurs are more likely to develop a solution built on the logic of empowerment than on the logic of control.</p>
<p>Griskevicius et al., 2012. <i>The Evolutionary Bases for Sustainable Behavior: Implications for Marketing, Policy, and Social Entrepreneurship</i></p> <p>Conceptual exploratory study. Theory development.</p> <p>Researchers study how can evolved human nature be leveraged to help eliminate or alleviate environmental problems by examining the evolutionary bases of destructive and ecologically damaging human behaviour.</p>	<p><u>Background for the research</u></p> <p>Many modern environmental and social problems are caused or exacerbated by five adaptive tendencies rooted in evolutionary history: (1) propensity for self-interest, (2) motivation for relative rather than absolute status, (3) proclivity to unconsciously copy others, (4) predisposition to be short-sighted, and (5) proneness to disregard impalpable concerns. These problems can be solved through strategies that work with humans' evolved tendencies, rather than ignore them or work against them.</p> <p><u>Key findings</u></p> <p>Researchers suggest the following ways that marketers, social entrepreneurs, and policy makers can harness and redirect people's evolutionary tendencies to lessen or even eradicate environmental problems:</p> <p>1) Self-interest (people prioritize self-interest over group welfare). Strategy examples: Highlight benefits to a person's</p>

<p>The article was published in 2012. No other data on the time frame is provided.</p>	<p>genetic self-interest; Create small, dense, and interdependent social networks resembling ancestral groups; Threaten reputations and foster group identities; Donate to green cause to create obligation and then ask people to reciprocate in return.</p> <p>2) Relative status (people are more motivated by relative rather than absolute status). Strategy examples: Encourage competitions on prosocial outcomes (e.g., the most sustainable); Publicize lists that rank the most prosocial companies, celebrities, or ordinary citizens; Make people who engage in self - sacrificing behaviours easy to identify.</p> <p>3) Social imitations (people copy subconsciously what others are doing). Strategy examples: Depict the high prevalence, or perceived prevalence, of the desired behaviour; Use social approval to encourage those above average to continue their behaviour (OPOWER strategy).</p> <p>4) Future discounting (people value the present more than the future). Strategy examples: Emphasize consequences of nonsustainable behaviour for present, not for future, generations; Highlight the stability, predictability, and safety of the world in which people live; Depict that women prefer men who engage in prosocial and sustainable behaviour.</p> <p>5) Impalpable concerns (people disregard problems they cannot see or feel). Strategy examples: Present local environmental problems to elicit visceral responses; Create visible links between behaviour and its immediate environmental consequences.</p>
<p>Lourenço et al., 2013. <i>Promoting sustainable development: The role of entrepreneurship education</i></p> <p>Empirical mixed study.</p> <p>Researchers adapt the theory of planned behaviour to examine attitudes to an entrepreneurial form of sustainability education. The relationship between nascent entrepreneurs' intentions to exploit learning and the extent of a profit-first mentality is examined. The study utilises data from 257 nascent entrepreneurs participating in a business start-up programme. Structural equation modelling is used to test a series of hypotheses which examine links between sustainability education and nascent entrepreneurs' attitudes.</p> <p>The study was published in 2013. No other data in the time</p>	<p><u>Background for the research</u></p> <p>Because business schools encourage a “profit-first mentality”, their ability to deliver sustainability-related education programmes is unclear.</p> <p><u>Key findings</u></p> <p>There is a strong relationship between perception of learning benefits and intentions of nascent entrepreneurs to exploit those benefits. Although a profit-first mentality is negatively related to perceptions of benefit, learning itself is not affected.</p>

<p>frame is provided.</p>	
<p>Zahra et al., 2013. <i>On the Frontiers: The Implications of Social Entrepreneurship for International Entrepreneurship</i></p> <p>Conceptual study. Scientists explore how social entrepreneurship research extends the field of international entrepreneurship (IE) to affect global sustainable well-being.</p> <p>The study was published in 2013, no other data on the time frame is provided.</p>	<p><u>Background for the research</u></p> <p>Contrary to the exclusive focus on economic measures of success in traditional analyses, organizations pursue blends of financial, social, and environmental values, but the difference lies in how much value is created and destroyed across the types in different business models.</p> <p><u>Key findings</u></p> <p>Researchers revise the definition, assumptions, and boundaries of IE at the firm and international policy levels. They propose a broader vision for the IE field based on an expanded set of assumptions beyond traditional economic thinking.</p>
<p>Ghauri et al., 2014</p> <p><i>Internationalisation of service firms through corporate social entrepreneurship and networking</i></p> <p>Empirical exploratory study.</p> <p>Qualitative multiple case studies. Three service firms that have targeted the BOP markets in India were studied. In total, 25 in-depth interviews were conducted with multinational corporations (MNCs) and their NGO partners.</p>	<p><u>Background for the research</u></p> <p>Employing corporate social entrepreneurship and developing a network of relationships with non-governmental organisations (NGOs) can support and contribute towards the internationalisation of service firms into the base of the pyramid (BOP) markets in emerging markets.</p> <p><u>Key findings</u></p> <p>By engaging in social entrepreneurship, these MNCs have focused on the neglected needs of the BOP population, developed sustainable solutions and empowerment, and started with social value creation and postponed value capturing. The pursuit of corporate social entrepreneurship has paved the way for them to establish relationships with NGOs. While the MNCs have mainly had the technical knowledge and financial resources required, collaboration with NGOs have allowed them to learn about the BOP's specific needs and benefit from the NGOs' knowledge, human resources and good relationships in this market.</p>
<p>Vickers and Lyon, 2014</p> <p><i>Beyond green niches? Growth strategies of environmentally-motivated social enterprises</i></p> <p>Empirical exploratory case study.</p>	<p><u>Background for the research</u></p> <p>ESEs are in the centre of theoretical and policy interest in relation to ongoing debates around the ethical dimensions of capitalism and the nature of growth.</p> <p><u>Key findings</u></p> <p>There are three main categories of ESE growth, according to the nature of the markets and needs addressed, and sources of</p>

<p>8 environmentally-motivated social enterprises (ESEs) that were purposively selected from an initial sampling frame of 87 environment- related organisations in the East Midlands, UK.</p>	<p>resilience and competitive advantage. Growth modes are shown to range from a highly localised niche focus (Small and Beautiful) involving deepening engagement with other local producers and communities; movement beyond niche through sharing and selling knowledge (Green Knowledge Economy); and employment creation through combining labour-intensive activities in environmental sectors with work integration services for the public sector (Green Collar Army). Within these modes, ESEs can be found with different legal and organisational forms, some of which are more associated with the private sector than the social economy.</p> <p>Strategies for growth are shaped by complex relational processes involving the values of founders, the core team and key stakeholders, their skills and capabilities, the influence of the communities in which they are embedded and wider institutional influences.</p>
<p>Gray et al., 2014 <i>Encouraging sustainable entrepreneurship in climate-threatened communities: a Samoan case study</i></p> <p>Empirical mixed study. Case study (content analysis of historical documents supplemented with thematic analysis of in-depth interviews with key stakeholders of Women in Business Development Incorporated (WIBDI) a non-governmental organization that helps women and families in Samoa to establish sustainable enterprises.</p> <p>Researchers develop a model of how external factors and chance events impact on sustainable opportunity recognition and exploitation in the situations of economic and social challenges. Authors assess the efficacy of this model in an in-depth study of WIBDI.</p>	<p><u>Background for the research</u></p> <p>Key organizational capabilities are necessary for coping with exogenous shocks in at-risk communities.</p> <p><u>Key findings</u></p> <p>External social and institutional pressures, as well as environmental shocks and other critical incidents and socio-economic trends, forced WIBDI to move from an internal to external orientation.</p>
<p>Nicolopoulou, 2014 <i>Social Entrepreneurship between Cross-Currents: Toward a Framework for Theoretical Restructuring of the Field</i></p>	<p><u>Background for the research</u></p> <p>Nowadays social entrepreneurship is between cross- currents. On the one hand, it seeks, as a subfield, to solidify its theoretical and methodological underpinnings and standpoints. On the other hand, it is consistently exposed to field expansion, given that a number of its underlying frameworks, commonly shared with other fields (such as sustainability and</p>

<p>Conceptual study.</p> <p>The paper studies the links of social entrepreneurship with sustainability and corporate social responsibility (CSR).</p>	<p>CSR, are opening up to wider vistas of conceptualization and theorization.</p> <p><u>Key findings</u></p> <p>The paper enhances the understanding of social entrepreneurship field development by identifying cross-currents and by highlighting new angles for paradigmatic and theoretical positioning. It also implements a framework that scholars previously employed within the original field of entrepreneurship (Bourdieu’s theory of capitals and their transformations); in doing so, it also proceeds to propose an enrichment to the framework by including additional capitals that are specifically relevant for the field of social entrepreneurship and that are influenced by common agendas, as those exist in the fields of sustainability and CSR. Additionally, it offers insights for theory, as well as practice, which relate to understandings from the first two contributions.</p>
<p>Pinkse and Groot, 2015</p> <p><i>Sustainable Entrepreneurship and Corporate Political Activity: Overcoming Market Barriers in the Clean Energy Sector</i></p> <p>Empirical case study.</p> <p>Researchers study how sustainable entrepreneurs engage in political activities, navigate the tension between individual and collective interests, and deal with power imbalances vis-à-vis incumbents. Study covers new entrants in the Dutch clean energy sector (in three different subsectors: renewable energy (4 firms), sustainable construction (2 firms) and electric mobility (3 firms)). All firms have 25 or less employees.</p> <p>Researchers use semi-structured interviews and archival documents.</p>	<p><u>Background for the research</u></p> <ol style="list-style-type: none"> 1. Entrepreneurs who are able to form alternative coalitions and bypass the need to act collectively through industry associations are more likely to gain political access and influence. 2. Entrepreneurs who are able to create legitimacy by building up specialized expertise and frame their venture as a novel contribution to a collective interest are more likely to gain political access and influence. 3. Entrepreneurs who are able to create a relationship of mutual dependence with industry incumbents are more likely to gain political access and influence. <p><u>Key findings</u></p> <p>Sustainable entrepreneurs are politically active but pursue these activities using collective action. This raises issues because they face the presence of incumbents in industry associations that seek to thwart their political influence.</p>

<p>Muñoz and Dimov, 2015</p> <p><i>The call of the whole in understanding the development of sustainable ventures</i></p> <p>Empirical mixed study.</p> <p>Researchers use data from 45 sustainability-oriented new ventures in USA and UK to examine the causal configurations behind the manifestations of three substantive markers (the ideas, actions, and exchange relationships) using Fuzzy-Set Qualitative Comparison Analysis.</p> <p>Data frame: 2009-2011</p>	<p><u>Background for the research</u></p> <p>Sustainable entrepreneurship is a complex phenomenon, given the presence of commercially viable ventures that pursue economic, social and environmental outcomes concurrently. While current manifestation of such complexity in the academic literature has been to point to the sheer number of factors involved, this paper takes a step towards highlighting the conjunctural nature of their effects. It calls for a reorientation in analysis away from individual variables pried away from the empirical entity in which they operate towards the configuration of conditions that the entity itself represents.</p> <p><u>Key findings</u></p> <p>Ideas, actions, and exchange relationships can each be explained by two distinct configurations, each containing core and peripheral conditions. These configurations form sequences that mark two distinct venture development paths. The first, conformist, operates in an enabling supporting context, characterized by dominance of supporting social context in the formulation of ideas, of value creation and an enabling business context in the deliberation of actions, and of intention and enabling business context in the pursuit of exchange relationships. In contrast, the second, insurgent, path operates against an establishment that is not conducive to sustainability ideals and is characterized by lack of explicit consideration of sustainability ideas and dominated by the absence of supportive social context in the deliberation of actions, and by intention and the absence of supporting context in the pursuit of exchange relationships.</p>
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Appendix 3 - Researcher's analysis of the articles used in this study. Data adapted from reviewed articles.

Article ID	How is sustainability defined? Is TBL approach used in the study? Focus of sustainability?	Does entrepreneurship contribute to sustainable development? If yes, how? What is the link between entrepreneurship and sustainability? Do author(s) talk about sustainable entrepreneurship and provide its definition?	Researcher(s)/reviewer's suggestions for further research
Hart and Milstein, 1999	<p>Sustainability is defined as meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development).</p> <p>The authors do not mention TBL approach in their study and it is unclear whether they mean TBL approach or not because they mainly talk about environmentally sustainable businesses.</p> <p>The focus of the research is on the on the managers' ability to forecast and transform sustainability issues into business opportunities.</p>	<p>Yes, entrepreneurship contributes to sustainable development, if the managers are able to treat sustainable development as business opportunity.</p> <p>Sustainable development can drive the creative destruction (Schumpeter, 1934) process and build the foundation to compete in the twenty-first century.</p>	<p>The researchers do not provide any particular suggestions for further research.</p> <p><u>Reviewer's suggestion:</u> A more detailed study of each of the proposed global sustainability metrics for identifying business opportunities.</p>
Wheeler et al., 2005	<p>Sustainable enterprise is the enterprise that creates simultaneous economic, social and ecological gain.</p> <p>Researchers use TBL approach to sustainability.</p> <p>The focus of the article is on sustainable enterprises in developing countries. The authors claim that the proposed model (SLEN) offers a promising source of positive outcomes for sustainable development.</p>	<p>Researchers believe that nowadays business plays a greater role in sustainable development. For example, the UN and many government and NGOs, explicitly promote the mobilization of private-sector efficiency and creativity to help address the world's many pressing social and ecological problems.</p> <p>Thus it can be claimed that researchers share the view that entrepreneurship contributes to sustainable</p>	<p>The authors provide no direct suggestions.</p> <p><u>Reviewer's suggestion:</u> Further studies of the proposed SLEN model is an interesting research topic.</p>

		development by creating enterprises meeting the economic, social and ecological needs. According to the researchers the efficiency of such enterprises can be improved with the help of SLEN model.	
Elkington, 2006	<p>Sustainability is defined as meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development).</p> <p>The focus of the research is the fact that to date most TBL campaigners have not focused their activities at boards – nor, in most cases, do they have a detailed understanding of how boards and corporate governance systems work.</p> <p>TBL approach is used in the current research.</p>	<p>The author does not talk about entrepreneurship directly. The research is the author’s analysis of the sustainability issues in the world and their position in the global economy particularly in the corporate governance agenda. Since entrepreneurial activities form a part of this agenda, it can be said that sustainability and entrepreneurship are linked in this study.</p> <p>The author formulated the term TBL in his earlier works. In the current research TBL concept is understood as the concept that expresses the fact that companies and other organisations create value in multiple dimension (economic, social and environmental value added – or destroyed.</p>	<p>The author provides no direct suggestions.</p> <p><u>Reviewer’s suggestions:</u></p> <ol style="list-style-type: none"> 1) Shifting of the sustainable development debate from public relations to competitive advantage and corporate governance – and, in the process, from the factory fence to the boardroom. 2) Forecasting the fourth and fifth waves of public pressure on environmental agenda. 3) Further analysis of PLOT model.
Dean and McMullen, 2007	<p>Sustainability is defined as meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development).</p> <p>The authors discuss only two pillars of sustainability – environmental and economic.</p>	<p>The growing desire of many individuals in the marketplace for the cessation of environmentally degrading activities, combined with a willingness to pay for reduction of these activities, represents opportunity for entrepreneurial action that can lead to the enhancement of ecological sustainability. Thus, researchers see environmental problems as a source of entrepreneurial opportunity. At the same time they recognize that many entrepreneurial actions can actually increase market failure and result in additional environmental degradation. It is only sustainable</p>	<p>The authors note that the field of sustainable entrepreneurship is understudied, but they do not provide any particular suggestions for further research.</p>

		entrepreneurship which contributes to sustainable development.	
Cohen and Winn, 2007	<p>Sustainability is defined as meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development).</p> <p>Researchers use TBL approach.</p> <p>The research focuses on the concept of sustainable development.</p>	<p>Yes. Entrepreneurship contributes to sustainable development if it is sustainable entrepreneurship. Sustainability is seen as a source of entrepreneurial opportunity.</p>	<p>The authors provide a number of suggestions for future research in two areas: studies focused on the continued study of the role of market imperfections for entrepreneurship and studies expanding the emerging field of sustainable entrepreneurship.</p> <p><u>Market imperfections:</u></p> <ol style="list-style-type: none"> 1) How externalities (positive or negative) contribute to (or detract from) opportunity identification, exploitation and subsequent firm performance? 2) What is the role of contextual variables like demographic factors, country of origin, or prior work experience affecting entrepreneurs in identifying and exploiting sustainable entrepreneurship opportunities? 3) Looking at other factors beyond market imperfections that can generate new opportunities. More broadly, what is the role of shifting institutional conditions (Lawrence et al., 2001) in changing the institutional landscape of entrepreneurial opportunities? <p><u>Sustainable entrepreneurship:</u></p> <ol style="list-style-type: none"> 1) What implications new venture creation has for social wealth? 2) What is the relationship between new venture creation and the Triple Bottom Line? 3) What are the additional complexities of sustainable entrepreneurship?

<p>Pacheco et al., 2010</p>	<p>Sustainability is defined as meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development).</p> <p>Authors use TBL approach.</p> <p>The focus of the research is how sustainable enterprises can overcome their dependency on the nature of market incentives (“the green prison”).</p>	<p>Entrepreneurship is seen as the engine of sustainable development and the innovative power of entrepreneurship is expected to bring about the next industrial revolution and a more sustainable future.</p> <p>However, under certain conditions markets - and therefore, entrepreneurs are unable to effectively allocate environmental and social resources (prisoner’s dilemma problem – even though sustainable business models may carry collective benefit, entrepreneurs face a disadvantage when pursuing costly sustainable actions, as such costs may not be borne by competitors). Under these circumstances sustainable actions are punished rather than rewarded.</p> <p>Thus, sustainable practices sometimes are discouraged rather than encouraged.</p>	<p>According to the author(s) analysis of the means by which entrepreneurs transform economic institutions, and thereby escape the green prison that is intrinsic to many natural and environmental resource problems could be an interesting research topic aimed at better understanding of sustainable entrepreneurship.</p>
<p>Patzelt and Shepher, 2010</p>	<p>Sustainability is defined as meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development).</p> <p>Researchers use TBL approach to sustainability.</p> <p>The focus of the article is to show how individuals recognize opportunities for sustainable development based on their prior knowledge and motivation and why some individuals recognize such opportunities more than others.</p>	<p>Yes, entrepreneurship contributes to sustainable development.</p> <p>Entrepreneurship and sustainability are linked in this study through the concepts of sustainable development opportunities - opportunities that sustain the natural and/or communal environment as well as provide development gain for others (TBL approach). Thus, sustainable entrepreneurship is the discovery, creation, and exploitation of opportunities to create future goods and services that sustain the natural and/or communal environment and provide development gain for others.</p>	<p>Future research can depart from the study by relaxing its assumptions and boundary conditions.</p>

<p>Parrish, 2010</p>	<p>Sustainable development is a concept that describes the social goal of improving and maintaining human wellbeing over a long-term time horizon within the critical limits of life-sustaining ecosystems (UN Conference on the Human Environment, 1972).</p> <p>Author uses TBL approach.</p> <p>The focus of research is to identify how entrepreneurship can usefully contribute to the goal of sustainable development.</p>	<p>Yes. Entrepreneurship contributes to sustainable development. At least it is expected to do so.</p> <p>In this study entrepreneurship is linked to sustainable development in the following way: the researchers look at the cases where the activities that provide for human wellbeing do not undermine the ecological and social processes on which they depend. Furthermore, they look specifically at the cases contributing to improved ecological and social wellbeing is a primary purpose of the enterprise, and market-based income is valued as a means of achieving these ends.</p>	<p>According to researcher it would be useful to explore the relevance of the principles described in the study to the design of organizations in primary and secondary industries, which interact more directly with biophysical systems. This would include exploring how these design principles apply to enterprises that manage ecosystems for biological productivity (e.g. farms, forests, fisheries), and also how they interact with other novel technological and organizational innovations in manufacturing enterprises (e.g. attempts to shift from material products to low-intensity service systems).</p>
<p>Hockerts and Wüstenhagen, 2010</p>	<p>Sustainability is defined as meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development).</p> <p>Authors use TBL approach.</p> <p>The focus of the research is how incumbents and new entrants engage in sustainable entrepreneurship, which is defined as “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”.</p>	<p>Yes, entrepreneurship contributes to sustainable development because emerging sustainable enterprise not only pursue the ideas of sustainable development themselves but also facilitate the whole industry’s transformation towards sustainable development.</p> <p>In this study entrepreneurship and sustainability are linked through the concept of sustainable entrepreneurship.</p>	<p>Researchers suggest a number of topics for further research:</p> <ol style="list-style-type: none"> 1) In general, sustainable entrepreneurship should be studied not through the traditional in this field “one case” design, but with the use of larger samples. 2) Comparative studies of sustainable entrepreneurial initiatives in both small and large firms with a focus on the specific challenges encountered by “Davids” and “Goliaths” in their attempts to broaden and deepen the level of their impact. Such research could be done retrospectively by doing in-depth case studies on some of the cases of successful “Emerging Davids” and “Greening Goliaths”. 3) Even more insightful would be longitudinal case studies of a set of small and large companies moving

			<p>towards sustainability, whereby the focus could be on either market or non-market strategies of Davids and Goliaths.</p> <p>4) There is also scope for empirically testing researchers' model in other industries such as the water sector or the greening of information technology (IT) services.</p> <p>5) A further area of interest would be to specifically investigate arenas where Davids and Goliaths interact. Looking at external corporate venturing programmes in sustainability-related industries such as energy, water or transportation might be a good focus for that.</p> <p>6) Further research could also take an investor perspective and ask for the optimal portfolio allocation between Davids and Goliaths for simultaneously achieving high economic, social and environmental performance.</p> <p>7) An important fundamental research question is whether there are indeed successful examples of the sustainability transformation of industries.</p>
Potts et al., 2010	In this study "sustainable" refers to the capacity of the environment to sustain human life and current levels of economic activity without degrading the quality of environmental services—and the pathways by which we might achieve them. The	The historical evidence points to the fact that humans are both ecologically destructive (Penn, 2003) as well as entrepreneurial in response to opportunities. But these tendencies are connected: a widespread expectation of ecological destruction alerts entrepreneurs to new	According to authors the preliminary model that is presented in the research provides a sound basis for further analytical and empirical development. These could be interesting research topics.

	<p>term is rightfully central to the research programme and is considered as the normative conception of ecological economics.</p> <p>Only two pillars of sustainability are considered in the study – economic and environmental.</p>	<p>opportunities (Boons and Wagner, 2009).</p> <p>So, in a certain way environmental problems are seen as a source of entrepreneurial opportunity.</p> <p>According to the research economic activity is always embedded in an ecological context. This is how entrepreneurship is linked to sustainability in the current study (which, however, considers only environmental pillar of sustainability).</p> <p>Therefore, the research does not provide an answer to the research question (whether entrepreneurship contributes to sustainable development). What is more, according to the research entrepreneurs can be both the cause of and the solution to many ecological problems.</p>	
<p>Kuckertz and Wagner, 2010</p>	<p>Sustainability is defined as meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development).</p> <p>Researchers use TBL approach to sustainability.</p> <p>The research focuses on sustainability as a source of entrepreneurial opportunity.</p>	<p>Yes. Entrepreneurship contributes to sustainable development through sustainable entrepreneurial actions.</p> <p>No longer is entrepreneurship supposed to merely result in economic success: sustainable entrepreneurs manage to the “Triple Bottom Line” by balancing economic health, social equity and environmental resilience through their entrepreneurial behaviour. Sustainable entrepreneurship is thus clearly associated with the promise of more traditional concepts of entrepreneurship, but also brings additional potential both for society and the environment.</p>	<p>Authors provide a number of suggestions for future research:</p> <ol style="list-style-type: none"> 1) According to researchers students (and alumni) are an extremely important group to study, since possession of a university degree has been shown to positively associate with entrepreneurial activity and intentions (Hisrich et al., 2007) and since graduates make up a large proportion of all entrepreneurially active individuals. 2) Including environmental factors or different educational stimuli in the research design would be an interesting avenue for future research. This would permit the investigation of potentially moderating

			<p>effects on the relationship in question. Furthermore, stronger linking of anecdotal evidence and large-scale survey data would contribute to an even better understanding.</p> <p>3) Another interesting approach would be to research operationalization's of entrepreneurial intention which would provide a route to distinguish conventional entrepreneurial intention from sustainable entrepreneurial intention. In this context nested multi-level designs seem to be particularly suited.</p> <p>5) Another aspect that potentially could confound the analysis is the nature of the reported link between sustainability orientation and entrepreneurial intentions.</p>
Hall et al., 2010	<p>Sustainability is defined as meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development).</p> <p>Researchers use TBL approach to sustainability.</p> <p>Sustainable development is the focus of the study.</p>	<p>Potentially entrepreneurship can contribute to sustainable development, but it is still not 100% clear how exactly and a lot of questions regarding this matter remain open.</p> <p>Entrepreneurship is a major conduit for sustainable products and processes, and new ventures are being held up as a panacea for many social and environmental concerns. However, this potential for societal transformation through entrepreneurship — the Panacea Hypothesis — remains an active undercurrent in the discourse, while the relationship between sustainable development and entrepreneurship is often more prescriptive than descriptive and, perhaps, overly optimistic.</p>	<p>Researchers suggest a number of research questions. Each of these questions has important implications for policy and practice:</p> <p>1) Under what conditions it is expected to see entrepreneurial ventures rather than incumbent firms providing sustainable products and services?</p> <p>2) Under what conditions it is expected to see entrepreneurs pursue sustainable ventures? This has been, and, most likely, will remain, one of the dominant questions in the field.</p> <p>3) Under what conditions can entrepreneurship simultaneously create economic growth, while</p>

			<p>advancing social and environmental objectives?</p> <p>4) Related to the last question, under what conditions is entrepreneurship welfare-creating versus welfare-destroying, especially once all externalities are factored in?</p> <p>5) Under what conditions does public policy positively influence the incidence of sustainable entrepreneurship?</p>
York and Venkataraman, 2010	<p>No definition of sustainability is provided.</p> <p>Even though researchers mention sustainable development in their study, the focus is only on two pillars – economic and environmental.</p>	<p>The focus of the article is the proposition that entrepreneurship is a solution to, rather than a cause of, environmental degradation. Therefore, entrepreneurship can contribute partly to sustainable development (through contributing to solving environmental problems). Entrepreneurship and sustainability are linked in this study through this proposition.</p>	<p>Researchers suggest that their model should be tested further through experiments.</p> <p>Reviewer’s suggestion is to study more in detail the question “under what conditions and how entrepreneurial action can address problems of sustainable development”.</p>
De Clerq and Voronov, 2011	<p>No definition of sustainability is provided in this study. However, it is clear that researchers use TBL approach because they provide quotes as “Calls for sustainable development, and associated attention upon the natural environment and corporate social responsibility may represent one of the most important social movements of the late 20th century (Derksen and Gartrell, 1993; Dunlap and Mertig, 1992; Juravle and Lewis, 2009)”.</p> <p>The focus of the article is the balance between sustainability and profitability in entrepreneurial</p>	<p>The authors do not provide a clear answer to the research question. However, they do admit that sustainability concerns are intrinsically intertwined with entrepreneurial practice.</p>	<p>Future research could elaborate on the dynamic nature of the proposed model. In particular, while the practices of early-stage entrepreneurs who emphasize sustainability may be perceived as not economically viable and thus, not legitimate at a given point in time, these perceptions may change to the extent that the adoption of sustainable practices becomes the ‘new accepted norm’ within the field.</p>

	activities.		
Spence et al., 2011	<p>Sustainability is defined through the concept of sustainable entrepreneurship (see next column).</p> <p>While economic pillar is a constant, only either social or environmental pillars of sustainability are mentioned in the sustainable entrepreneurship definition provided in this study. Therefore, it is a matter of opinion whether this approach can be considered as TBL.</p> <p>The article pursues two objectives regarding sustainability. First, it aims to determine the fundamentals of sustainable entrepreneurship. Second, it studies the potential impact of economic, institutional, and cultural dimensions upon diverse levels of sustainability in SME.</p>	<p>The study proves indirectly that entrepreneurship contributes to sustainable development because the unit of analysis in the study is SMEs operating in the field of sustainable entrepreneurship. Existence of sustainable entrepreneurship itself proves that entrepreneurship contributes to sustainable development because sustainable entrepreneurship in this study is defined as: “An innovative, market oriented and personality driven form of value creation by environmentally or socially beneficial innovations and products exceeding the start-up phase of a company. (Schaltegger and Wagner, 2007)”. In this way entrepreneurship is linked to sustainability in this study.</p>	<p>Researchers provide suggestion for the research that could further validate their findings:</p> <ol style="list-style-type: none"> 1) More studies on the Aware and Indifferent firms could demonstrate the extent to which other theories could provide greater explanatory power, resource-based theory being one that should be investigated further. 2) Additional in-depth studies using a more ethnographic approach with each type of entrepreneur should be conducted in each country to gain a better understanding of cultural differences. Qualitative, comparative interviews should also be carried out between sectors to account for differences in behaviours driven by environmental or social pressures of particular industries.
Shepherd and Patzelt, 2011	<p>The researchers do not provide definition of sustainability. However, based on their definition of sustainable entrepreneurship it is clear that they use TBL approach.</p>	<p>Sustainability and entrepreneurship are linked in this study through the concept of sustainable entrepreneurship, which 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.</p>	<p>The authors do not provide any detailed suggestions for future research. They just propose to base further studies on the area on their definition of sustainable entrepreneurship.</p>
Pless and Appel, 2012	<p>The researchers do not provide definition of sustainability.</p> <p>In general ,Gram Vikas’ vision is “an equitable and</p>	<p>Yes. Entrepreneurship contributes to sustainable development.</p> <p>Gram Vikas acts as a facilitator, beginning a sustainable, self-reinforcing development process that is taken up and</p>	<p>Researchers do not provide any particular suggestions for further research.</p> <p><u>Reviewer’s suggestions:</u></p>

	<p>sustainable society where people live in peace and dignity”.</p> <p>In the article the focus is on the Water and Sanitation Program, which is seen as a way of sustainable community development.</p> <p>The programme applies TRL approach to sustainability and all three pillars are equally important for its correct implementation.</p> <p>Social pillar: The programme improves living conditions, builds self-esteem, brings dignity to villagers and promotes equality.</p> <p>Economic pillar: Through the concept of 100% inclusion programme participants take an active role and over time become engaged into income-generating activities, thus contributing to economic development of the region. Gram Vikas programmes also over time become financially self-sustainable.</p> <p>Environmental pillar: Gram Vikas refrains from using unsustainable water sources, promotes sustainable forestry and other environmental friendly ways of generating profit. The pollution of water sources also reduces since people implement sewing systems.</p>	<p>carried out by the community. Thus, sustainable development is a source of entrepreneurial opportunity for Gram Vikas, and, consequently, it becomes a source of entrepreneurial opportunity for the villagers, who actively participate in the entrepreneurial activities through the concept of 100% inclusion.</p> <p>While building water and sanitation infrastructure (entrepreneurial activity) addresses an urgent need, Gram Vikas also facilitates further long-term changes and development processes in the community (sustainable development).</p> <p>Other Gram Vikas’ activities where entrepreneurship and sustainability are closely connected are also briefly described in the article. For example, social forestry (part of “Livelihoods” program) is villagers’ profit-generating activity where forests are managed in a sustainable environmentally friendly way.</p>	<p>1) Analysis of similar programme (e.g. in a different country) and comparison to the programme described in this study.</p> <p>2) Analysis of an aid programme in developing country which is different from GV in a way that the receivers of help are not 100% included to the program. How the results of such programme are different from GV?</p> <p>Personal note: when people are given an active and important role in a project they realize their potential and obtain the sense of responsibility for their life and action. With time they are more likely to overcome dependence on the “giver”. This is unlikely to happen in the traditional charity “giver-receiver” approach. “Give a man a fish and you feed him for a day; teach a man to fish and you feed him for a lifetime.”</p>
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Santos, 2012	<p>No definition of sustainability is provided.</p> <p>Sustainability is mentioned in “sustainable advantage” and “sustainable solution” concepts. The author claims that commercial entrepreneurs aim at gaining sustainable advantage, whereas social entrepreneurs aim at finding sustainable solutions – solutions that eliminate the problems permanently.</p>	<p>The study proves that entrepreneurship contributes to the development of the two pillars of sustainability (economic and social) if we consider most common definition of social entrepreneurship, (entrepreneurial activity with an embedded social purpose (Austin et al., 2006)).</p> <p>Since the concept of social entrepreneurship is poorly defined and its boundaries with other fields of study remain fuzzy, there are over 20 different definitions of this phenomenon. One of these definitions includes all three pillars of TBL approach (social entrepreneurship is a simultaneous pursuit of economic, social, and environmental goals by enterprising ventures (Haugh, 2007)). If we consider this definition of social entrepreneurship then it can be said that entrepreneurship is directly linked to sustainability and that entrepreneurship contributes to sustainable development. In other cases entrepreneurship contributes only to the two aspects of sustainability (economic development and social welfare).</p>	<p>Researcher suggests that a more clear definition of social entrepreneurship should be provided and his proposed theory could serve as a basis for such study.</p>
Griskevicius et al., 2012	<p>Researchers do not provide any definition of sustainability. In spite of that it can be said that sustainable development is the focus of this research, because the authors study the methods of modifying humans’ behaviour towards sustainable one.</p> <p>Both environmental and social aspects of the</p>	<p>The research does not link sustainability issues with entrepreneurship directly. The focus of the research is the methods that marketers, social entrepreneurs and policy makers can apply to overcome the negative patterns leading to nonsustainable behaviour. According to the authors</p> <p>ancestral human nature has contributed to creating modern social problems, human nature is also poised to</p>	<p>Researchers suggest that many implications of an evolutionary approach require further testing.</p>

	sustainability are taken into account, so it can be assumed that researchers apply TBL approach.	help solve them. Therefore, this study partly answers the research question – yes, entrepreneurship (if seen as a form of human behaviour) contributes to sustainable development.	
Lourenço et al., 2013	<p>Sustainability is defined as meeting “the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Environment and Development).</p> <p>Researchers use TBL approach to sustainability.</p> <p>The focus of the article is to find out what is the motivation of entrepreneurs to-be to start sustainable business.</p>	Yes, entrepreneurship contributes to sustainable development and entrepreneurship education can help promote sustainable business practices. This is how entrepreneurship is linked to sustainability in this study.	Researchers suggest to study whether intentions will lead to actual use of knowledge related to sustainable entrepreneurship by identifying business opportunities that are sustainable, and/or developing competitive advantage by applying the principle of sustainability for business. Future research should adopt longitudinal research methods to monitor and evaluate whether our model can be extended to predict nascent entrepreneurs’ actual exploitation of their learning.
Zahra et al., 2013	Researchers refer to sustainability through the concept of well-being - a multidimensional concept that includes financial, social, and environmental wealth creation. Therefore, it is clear that researchers use TBL approach.	According to researchers international entrepreneurs are true catalysts and agents of social change that uplifts the quality of the human existence worldwide.	There is a number of suggestions for future research at the firm level and at the international level.
Ghauri et al., 2014	<p>Researchers do not provide any definition of sustainability.</p> <p>The focus of the article is on sustainable solutions, empowerment, social value creation that multinational corporations and their NGO partners (non-governmental organisations) achieve by engaging in social entrepreneurship.</p>	The article indirectly answers the research question. Yes, social entrepreneurship contributes to sustainable development. Researchers also view social challenges (e.g. poverty) as entrepreneurial opportunities.	Article does not provide any particular suggestions for future research.

Vickers and Lyon, 2014	<p>Researchers do not provide any definition of sustainability.</p> <p>Central to this article is how the study of social enterprises can add to our understanding of growth in light of the sustainability agenda.</p> <p>It seems that researchers use TBL approach because they use the following definition of social enterprises - “Social enterprises – or values-driven ‘hybrid’ businesses that operate in the ill-defined space between the for-profit and non-profit worlds – are seen by some to have particular strengths in simultaneously addressing economic, social and environmental needs” (Amin, 2009; Boyd et al., 2009; Pearce, 2003).</p>	According to researchers environmentally-motivated social enterprises contribute to sustainable development.	There is a need for further longitudinal work in order to investigate change over a longer period within specific contexts, notably with respect to the interplay of the perspectives of the various actors involved, both at the micro-level (within ESEs and their communities of interest), and in relation to the evolution of the wider policy and institutional context.
Gray et al., 2014	<p>Researchers do not provide any definition of sustainability.</p> <p>However, they do use the concept of TBL.</p>	Yes, entrepreneurship contributes to sustainable development. This is illustrated by the case organization, described in the article. Especially, “entrepreneurship can stimulate recovery and economic development after natural disasters, and raise the esteem of disadvantaged groups” (Galbraith and Stiles, 2006).	There is a need for a deeper understanding of how organizational culture influences the incorporation of externally sourced knowledge in opportunity identification and exploitation routines.
Nicolopoulou, 2014	<p>Researchers do not provide any definition of sustainability.</p> <p>However, they do use the concept of TBL.</p>	The article indirectly answers the research question. Yes, entrepreneurship contributes to sustainable development. Authors quote Shepherd and Patzelt (2011), who have been expanding the remit of social entrepreneurship into “sustainable” entrepreneurship, as a new interdisciplinary field, which “explore(s) the role of entrepreneurial action as a mechanism for sustaining nature and ecosystems	There is a need for in-depth engagement with case studies with a longer time horizon that could justify a longitudinal perspective, rather than an “exemplary vignette” approach (Hockerts and Wustenhagen 2010). This will eventually allow the field to adopt more of a <i>learning and development</i> outlook, and perhaps move away from the currently still applicable style of

		whilst providing economic and non-economic gains for investors, entrepreneurs and societies”, thus sharing common elements with both social entrepreneurship as well as CSR.	highlighting “exemplary” cases of social enterprises or social entrepreneurs as leaders.
Pinkse and Groot, 2015	<p>Researchers do not provide any definition of sustainability. However, it is clear that they use the term sustainable as meeting “the needs of the present without compromising the ability of future generations to meet their own needs”.</p> <p>Researchers focus on the question how sustainable entrepreneurs in Dutch clean energy sector engage in political activities, navigate the tension between individual and collective interests, and deal with power imbalances vis- -vis incumbents.</p>	Yes, entrepreneurship contributes to sustainable development. This is illustrated by the case firms described in this study.	Researchers propose further studies in the same direction.
Muñoz and Dimov, 2015	<p>Researchers do not provide any definition of sustainability.</p> <p>However, it is clear that they use the term sustainable as meeting “the needs of the present without compromising the ability of future generations to meet their own needs”.</p> <p>The focus of the paper is the development process of sustainable ventures.</p>	Entrepreneurship is a catalyst for solutions to sustainability problems and a central force in the development of an ecologically and socially sustainable economy.	Sustainable entrepreneurship is a complex phenomenon, given the presence of commercially viable ventures that pursue economic, social and environmental outcomes concurrently. While current manifestation of such complexity in the academic literature has been to point to the sheer number of factors involved, this paper takes a step towards highlighting the conjunctural nature of their effects. It calls for a reorientation in analysis away from individual variables pried away from the empirical entity in which they operate towards the configuration of conditions that the entity itself represents.