Linnæus University
Sweden

Master Thesis

The Role of Social Entrepreneurship in Promoting Sustainable Development and Addressing Environmental Challenges

Author: Komal Chaudry
Supervisor: Alina Husung
Examiner: Frederic Bill
University: Linnaeus University
Term: Spring 2023
Subject: 4FE25E-Degree Project in Business Administration
Level: Master

Abstract

1 ABSTRACT

This research focuses on how social entrepreneurs may help solve environmental problems and further sustainable development. It uses a quantitative method of analysis through a survey given to business majors in higher education. This study delves into the connection between social entrepreneurship and sustainable development by examining descriptive statistics like mean and standard deviation and using a t-test to determine statistical significance. Climate change, environmental deterioration, and resource depletion are just a few worldwide problems recognized as critical in this study. The concept of "social entrepreneurship," which merges business practices with an emphasis on doing good for society and the environment, has received much attention as a possible solution to these problems. Learning how social entrepreneurship may help with environmental issues and further sustainable development is important. This survey aims to learn how college business majors feel about the importance of social entrepreneurship to environmental protection and sustainability. Descriptive statistics will be used to analyze the survey results and learn about the median and range of replies. In addition, a t-test will be run to determine whether or not there are statistically significant differences between the groups of participants, expanding our knowledge of the elements that contribute to the success of socially entrepreneurial initiatives in resolving environmental issues.

Key words

Social entrepreneurship, sustainable development, environmental challenges,

Table of Contents

Appendices

1Introduction

The demand for creative ideas to advance sustainable development has grown as the globe struggles with important global challenges, including climate change, environmental degradation, and socioeconomic inequality (Raworth, 2017). In order to fulfill the current generation's requirements without jeopardizing future generations' ability to meet their own needs, sustainable development. Social entrepreneurship has arisen as a viable strategy to promote sustainable development while tackling environmental issues in response to these challenges (Battilana et al., 2017).

By fusing economic savvy with a deep dedication to social and environmental goals, social entrepreneurship aims to find novel solutions to social and environmental issues (Mair et al., 2019). In order to accomplish the Sustainable Development Goals (SDGs) of the United Nations, social entrepreneurs must harness the power of market-driven initiatives to produce beneficial social and environmental impacts (Bocken, & Geradts, 2021).

This research aims to study the function of social entrepreneurship in advancing sustainable development and resolving environmental challenges. This research aims to shed light on the potential of social entrepreneurship as an effective means of driving sustainability and environmental protection by examining the mechanisms through which social entrepreneurs contribute to the SDGs and the factors that influence their success (Spieth et al., 2019).

In addition, this research intend to study how diverse stakeholders, such as governments, enterprises, and civil society groups, support and work with social entrepreneurs to advance sustainable development and address environmental challenges (Waddock & McIntosh, 2020). This research seeks to contribute to the knowledge of social entrepreneurship's role in encouraging sustainable development and reducing environmental challenges by addressing the gaps in the current literature and giving insights to policymakers and practitioners.

Sustainable development and reducing environmental problems like climate change and running out of resources need creative solutions (IPCC, 2021). In order to solve these challenges, develop sustainable enterprises, and improve people's quality of life, social entrepreneurship, which blends commercial principles with social effect, is gaining more and more attention (Choi, Majumdar, 2020). It is important to understand the role of social entrepreneurship in promoting environmental development and solving environmental problems in order to guide the creation of policies and programs that support and encourage such business ventures (Santos et al., 2020).

There must be innovative solutions to the problems of climate change, resource depletion, and environmental degradation, which have gained more attention worldwide. Social entrepreneurship has emerged as a potential strategy to address

environmental problems, create sustainable enterprises, and enhance human well-being.

Moreover, this study intend to provide valuable recommendations to stakeholders looking to harness the power of social entrepreneurship for a more sustainable and equitable future by highlighting the transformative potential of social entrepreneurship in promoting sustainable development and addressing environmental challenges (Goyal, Sergi, & Kapoor, 2020).

1.1 Background of the study

As environmental problems like climate change, resource depletion, and pollution have become more serious (IPCC, 2021), finding creative ways to solve these problems and move forward with sustainable development has become more important. Social entrepreneurship, which uses cutting-edge business models to solve social and environmental problems while making money (Doherty et al., 2020), could solve these problems. Research in the field (Akemu et al., 2021) has shown that there is a chance that social entrepreneurship can positively affect society, the environment, and the economy. Even though there is growing interest in the role of social entrepreneurship in promoting sustainable development and solving environmental problems (Santos et al., 2020), more real-world data is needed to understand what makes these kinds of projects work and how they can be scaled up.

Sustainable development came about at the end of the 20th century to balance economic growth and development with social fairness and environmental protection (Brundtland Commission, 1987). The United Nations set up the Sustainable Development Goals (SDGs) to deal with big problems like climate change, environmental degradation, and social and economic inequality (Sachs, 2015; Raworth, 2017). To meet these objectives, creative strategies that consider economic, social, and environmental factors must be implemented.

One such strategy is social entrepreneurship, combining conventional business practices with altruistic goals (Dees, 1998; Mair et al., 2019). Social entrepreneurs use market-based strategies to advance the SDGs to improve society and the environment (Santos, 2012; Doherty et al., 2014). Because of its potential to generate sustainable development while tackling environmental concerns, social entrepreneurship has received growing attention from academics, professionals, and governments over the past few decades (Battilana et al., 2017).

Recent research (Mair et al., 2019; Spieth et al., 2019; Waddock & McIntosh, 2020) has examined how social entrepreneurship might help long-term economic growth and solve environmental problems. Recent research has shown that social entrepreneurs have the potential to help reach the SDGs in areas like reducing poverty, improving education and health, ensuring equal rights for women and men, and protecting the environment. However, knowledge of how social entrepreneurship ventures contribute to the larger SDGs and the factors that impact their effectiveness in tackling environmental concerns needs to be improved by knowledge gaps in the available research (Nicholls & Murdock, 2018; Austin et al., 2019).

In addition, the literature needs to go deeper into the significance of government, business, and civil society group collaboration and support for social entrepreneurship (Waddock & McIntosh, 2020). Due to this information deficiency, we cannot fully assess the potential of social entrepreneurship as a tool for accomplishing the SDGs.

1.2 Research Problem

Climate change, environmental damage, and income disparity threaten humanity's future (Raworth, 2017). The Sustainable Development Goals (SDGs) of the United Nations provide a comprehensive framework for tackling these key challenges and fostering sustainable development. The SDGs can only be achieved via creative solutions that concurrently address the social, economic, and environmental components (Battilana et al., 2017; Mair et al., 2019).

By combining business know-how with a solid commitment to social and environmental goals, social entrepreneurship has become a possible way to promote sustainable development and solve environmental problems (Mair & Hehenberger, 2014). Even though people are becoming more aware of how social entrepreneurship can help reach the SDGs (Nicholls & Murdock, 2018), we still need to learn more about how it helps support sustainable development and solves environmental problems.

The methods through which social entrepreneurship projects contribute to the SDGs need to be better understood (Spieth et al., 2019). This gap needs to be filled for policymakers and practitioners to fully realize the promise of social entrepreneurship in promoting sustainable development. Second, the effectiveness and impact of social entrepreneurs in tackling environmental challenges have yet to receive enough attention (Austin et al., 2019). You need to know more about these things to make effective support structures and policies that help social entrepreneurs promote sustainability and solve environmental problems. Finally, the literature needs to go further into the importance of cross-sector collaboration and support for social entrepreneurship, which includes governments, enterprises, and civil society groups (Waddock & McIntosh, 2020). The identification of best practices and prospects for encouraging social entrepreneurship as a means of attaining the SDGs are constrained by this gap.

Considering these gaps in the research, this research aims to fill the need for a thorough understanding of the role of social entrepreneurship in promoting sustainable development and solving environmental problems.

1.3 Significance of the study

The research will be important for policymakers, practitioners, and scholars because it intends to provide light on the potential of social entrepreneurship to address environmental challenges, promote sustainable development, and create good change. The results will be used to make policies and programs that support social entrepreneurship and guide future research in this area.

The significance of this study lies in its potential contributions to the understanding of social entrepreneurship's role in promoting sustainable development and addressing environmental challenges, as well as its practical implications for stakeholders seeking to foster social entrepreneurship to achieve the SDGs. The study intends to add to the body of knowledge on social entrepreneurship and sustainable development by investigating the processes by which social entrepreneurship activities contribute to the SDGs and the characteristics that determine their effectiveness in solving environmental challenges. The theoretical understanding of the connection between social entrepreneurship and sustainable development may be advanced with the aid of this research, which will assist in closing the knowledge gap (Le Ber, Branzei, & Haugh, 2020).

This research also has a significant policy, corporate, and civil society consequences. By looking at the factors that help or hurt the effectiveness of social entrepreneurs and the role of cross-sector collaboration and support, the research can offer important insights and suggestions for making policies and support systems that make it easier for social entrepreneurs to drive sustainability and protect the environment. The results of this research will help governments and other interested parties develop policies and plans that will help social entrepreneurs work toward sustainable development and solve environmental problems.

By spotlighting successful efforts and investigating the elements that contribute to their success in promoting sustainable development and solving environmental challenges, this research has the potential to encourage the replication and scaling of successful social entrepreneurship models.

1.4 Research Objectives

The primary goals of this research project are to:

1. To study sustainable social entrepreneurship's role in tackling environmental challenges and supporting environmental development.

1.5 Research Question

1. How does social entrepreneurship contribute to addressing environmental challenges and promoting sustainable development?

1.6 Variables:

1.6.1 Dependent variable

The extent or level of social entrepreneurship's contribution to resolving environmental concerns and fostering sustainable development is the focus of the study's dependent variable. The effect of social entrepreneurship in resolving environmental problems and advancing sustainable development hinges on this variable. Indicators like the number of successful environmental projects initiated by social entrepreneurs, the scale of environmental impact achieved through these

initiatives, and the extent to which social entrepreneurship is aligned with sustainable development goals are all possible ways to operationalize the dependent variable.

1.6.2 Independent variable

Social entrepreneurship, on the other hand, serves as an independent variable. It is the one researcher play about with and examine to see how it affects the 'dependent' variable. Social entrepreneurs aim to produce social or environmental value by innovative and entrepreneurial means. It is the practice of using economic methods to solve societal or ecological problems. The presence or absence of social entrepreneurial ventures, the breadth and depth of their activities, the depth of their collaboration with stakeholders, and the incorporation of sustainable practices into their business models are all ways to measure the independent variable, social entrepreneurship.

The research aims to discover how social entrepreneurs might help solve environmental problems and advance sustainable growth. Researchers can evaluate the contribution of social entrepreneurship to solving environmental problems and fostering sustainable development by examining the dependent variable about the independent variable.

1.7 Research Hypothesis

- H1: Social entrepreneurship significantly contributes to addressing environmental challenges.

- H2: Social entrepreneurship significantly promotes sustainable development.

1.8 Research Gap

Despite the increased interest in social entrepreneurship to promote sustainable development and address environmental challenges, the existing literature has significant holes that this research seeks to fill.

The methods by which social entrepreneurship advances sustainable development goals must be better understood. A thorough grasp of how these projects together contribute to the broader Sustainable Development Goals (SDGs) still needs to be improved, even though there is extensive research on the individual contributions of social entrepreneurs. By investigating the many ways in which social entrepreneurs address the SDGs and the links between their activities, this research seeks to bridge this gap.

Second, the existing literature, which is mainly about the social effects of social entrepreneurship, needs to pay more attention to the factors that affect how well and how much social entrepreneurs can help solve environmental problems. This research fills in the gaps in our knowledge by looking into the elements that make or break the

ability of social entrepreneurs to solve ecological issues and move forward with sustainable development.

Lastly, the current research needs to look into cross-sector collaboration and support for social entrepreneurship in more detail. There needs to be more empirical research on the precise ways these stakeholders might stimulate social entrepreneurship for sustainable development and environmental preservation. This research aims to fill this gap by examining how stakeholders help and work with social entrepreneurs to reach sustainability and environmental goals.

By filling in these research gaps, this research adds to what is known about social entrepreneurship and sustainable development. Moreover, it seeks to offer insightful information to governments, corporations, and civil society organizations interested in fostering social entrepreneurship to advance sustainable development and address environmental challenges.

1.9 Rationale of the Study

The rationale for this study is centered on the urgent need to uncover and promote new ideas for achieving sustainable development and addressing environmental challenges. There is a growing agreement that more than conventional development methods are needed to address the worlds increasingly complex and linked social, economic, and environmental challenges (Sachs, 2015; Raworth, 2017

The capacity of social entrepreneurship to integrate market-driven strategies with a firm dedication to achieving social and environmental goals makes it crucial to achieving sustainable development (Mair et al., 2019). In order to achieve the Sustainable Development Goals (SDGs) and bring about lasting change in their communities and beyond, social entrepreneurs must seek novel solutions to today's most pressing social and environmental issues (Santos, 2012; Doherty et al., 2014). Notwithstanding the potential of social entrepreneurship, gaps in the available research hinder our understanding of the processes by which social entrepreneurship activities contribute to the SDGs and the factors that influence their success in addressing environmental challenges (Nicholls & Murdock, 2018).

This research aims to fill these gaps and contribute to a complete understanding of social entrepreneurship's potential to drive good change by examining the role of social entrepreneurship in supporting sustainable development and addressing environmental challenges. The involvement of governments, businesses, and civil society organizations is essential for maximizing the impact of social entrepreneurs on sustainable development and environmental protection, so the research also aims to study the role of cross-sector collaboration and support in fostering social entrepreneurship (Waddock & McIntosh, 2020).

2 Methodology

A quantitative approach has been used to learn more about the role of social entrepreneurship in promoting sustainable development and solving environmental

problems. It is done through surveys. A structured questionnaire is used to get information from the bachelors, masters and phd students of business and entrepreneurship, People with the right background information will be looked for using both planned and unplanned sampling methods.

2.1 Research Design

The survey analysis is likely to include identifying common themes and trends throughout the efforts and investigating each question's unique elements. Comparing and contrasting the cases may also be part of the research to uncover characteristics that contribute to the success or failure of social entrepreneurship efforts in promoting sustainable development and addressing environmental concerns.

Overall, a quantitative research design based on survey analysis is an appropriate method for exploring social entrepreneurship's complex and multidimensional role in supporting sustainable development and resolving environmental concerns (Bell, Bryman, & Harley, 2019, p. 123)

2.2 Data Collection

Because of their familiarity with the material, the study will focus on undergraduates, postgraduates, and doctoral students majoring in business or entrepreneurship. A combination of random and purposeful sampling techniques is employed. A more representative and less biased sample can be achieved by using random sampling, which gives each member of the population an equal chance of being selected. Purposive sampling, on the other hand, will zero in on students who have shown active participation in or significant interest in social entrepreneurship and environmental sustainability. (Bell, Bryman, & Harley, 2019, p. 123).

A survey was circulated to students via institutional email lists and social media groups dedicated to business and entrepreneurship studies to obtain the necessary data. This data-gathering method is favored due to its low cost, short turnaround time, and broad geographic coverage.

2.3 The layout of a Questionnaire

There will be several parts to the questionnaire. In the first section, we ask about the respondent's educational background, field of expertise, and experience with social entrepreneurship initiatives.

In the second section, respondents were asked to share their thoughts on social entrepreneurship and its role in advancing sustainable development and resolving environmental issues. We will use some Likert scale questions so that respondents can rate how much they agree or disagree with each statement.

The final section examines how the respondent feels social entrepreneurship can help with environmental issues. In this part, we also examine social entrepreneurs' opportunities and challenges when working to advance sustainable development. A

comprehensive and diverse range of information has been collected regarding the role of social entrepreneurship in supporting sustainable development and tackling environmental challenges by using both approaches. The survey provided intimate insights into the experiences of field-based social entrepreneurs. In contrast, secondary data sources provided a broader perspective and helped contextualize the case studies. Academic studies, research reports by organizations like the United Nations Development Program or the World Bank, government publications, and related databases are used to look for secondary data on the impact of social entrepreneurship on sustainable development. Insights and instances are detailed in case studies, conference papers, and scholarly theses.

2.4 Sampling Strategy

A sampling strategy is used in a research project to pick a sample of participants from a broader population. Purposive sampling, also known as judgmental or selective sampling, is a non-probability sampling approach in which participants are chosen based on particular criteria rather than randomly (Bell, Bryman, & Harley, 2022, p. 123).

The sampling approach used in this study is purposeful, implying that the researcher chose social entrepreneurs who match specified criteria. The selection criteria are their involvement in the environmental sustainability sector, success in promoting sustainable development, and utilization of social entrepreneurship to achieve their aims.

The researchers used purposive sampling to ensure that the selected participants had relevant experiences and expertise linked to the research issue, which is social entrepreneurship and environmental sustainability. This strategy enables researchers to get detailed information from individuals best prepared to answer the research questions. Non-probability sampling methods include the likes of purposeful sampling, which also goes by the names of judgmental, selective, and subjective sampling. Researchers use this method to recruit study volunteers who have certain expertise, backgrounds, or other traits. The purpose of this study is to collect in-depth information from people who are experts in the fields of social enterprise and ecological sustainability (Etikan, Musa, & Alkassim, 2016).

To answer their inquiries, researchers can choose the people they interview with this strategy. The sample is not generalizable to the population, but it is pertinent to the study's focus. Although this could reduce the findings' generalizability, purposive sampling is useful for understanding complex phenomena and settings (Palinkas et al., 2015).

Purposive sampling can identify participants who are social entrepreneurs, policymakers, or experts in the field who can provide in-depth, well-informed viewpoints on a research issue, such as the impact of social entrepreneurship on fostering environmental sustainability.

Overall, purposive sampling in this research allows for the intentional and planned selection of participants, which can improve the quality and relevance of the data acquired.

2.5 Data Analysis

Data analysis is important in the research process because it transforms the obtained data into relevant insights to answer the research questions. The quantitative analysis assesses this study's data acquired from survey.

Statistical Package for the Social Sciences (SPSS) analyzes the data. To summarize and characterize the data, descriptive statistics have been employed. Inferential statistical methods like correlation and multiple regression analysis investigate potential causal relationships between the variables (Field, 2013). The results shed light on how social entrepreneurs contribute to sustainable growth and environmental management, which could guide policy and practice moving forward.

Ethics: The study will adhere to ethical norms for human subject's research, such as getting informed consent from participants, maintaining confidentiality and anonymity, and maintaining a courteous and non-judgmental attitude during survey.

Limitations and future research: The study's limitations will be highlighted, such as potential biases in the sampling approach or dependence on self-reported data. Suggestions for future research to overcome these constraints or explore new concerns will be made.

The study intends to provide insights into the role of social entrepreneurship in supporting sustainable development and addressing environmental concerns by employing this methodology. The study's findings can help to design strategies and policies to foster social entrepreneurship in the environmental sustainability sector and to promote sustainable development in general.

3 Literature Review

According to Busch & Bain, (2022), social entrepreneurship has surfaced as a promising strategy for advancing sustainable development and tackling environmental predicaments. According to Li, Li, & Li, (2022) social entrepreneurs employ novel strategies to generate social and ecological benefits, frequently by establishing new enterprises or reconfiguring established entities. Jia, Zhao, & Liu, (2021) assert that social entrepreneurship prioritizes creating favorable social and environmental outcomes alongside attaining financial viability. According to Haigh & Hoffman, (2020), social entrepreneurs can effectuate systemic transformation and establish a more sustainable future by integrating entrepreneurial abilities and business acumen with social and environmental objectives.

The concept of social entrepreneurship has been linked to Ashoka, an innovative organization established in 1980 to assist social entrepreneurs, as noted by Lawanne, (2016). Ashoka is dedicated to seeking transformative solutions to address worldwide

challenges (Ashoka, 2022) which have arisen due to inadequate government responses (Dufays & Huybrechts, 2014) to unresolved social disparities (Wilder and Walters, 2021). The characterization of social entrepreneurship requires a range of approaches (Sullivan Mort, Weerawardena, & Carnegie, 2003), which encompass various sub-concepts (Choi & Majumdar, 2014), including social innovation (Somerville, 2014) proactiveness (Lumpkin et al., 2013), and social value (Alvord et al., 2004). According to Douglas and Prentice (2019), social enterprises that aim to incorporate social values into their operations are characterized by a far-reaching perspective. Moreover, social entrepreneurship establishes a link between the public and private domains by utilizing private resources to facilitate public welfare (Ozili, 2022). The inclination to provide social benefits to others is commonly called a "prosocial attitude" in academic literature (Bacq & Alt, 2018).

Social entrepreneurship is a practice that employs business principles to achieve social outcomes (Thompson and Doherty, 2006, Wolk, A., 2008). It is accomplished by implementing innovative solutions that require minimal resources and creating social value (Peredo & McLean, 2006). Social value creation is a distinguishing characteristic that sets social enterprises apart from commercial ones, as Cherrier et al. (2018) noted. This concept encompasses principles such as fairness, honesty, altruism, freedom, and equality, as highlighted by Murphy and Coombes (2009).

3.1 Historical background and evolution of social entrepreneurship in addressing environmental challenges

The utilization of social entrepreneurship as a viable strategy to tackle environmental issues has surfaced as a promising avenue. According to Busch and Bain's (2022) documentation, its inception occurred in the late 1970s and early 1980s. The exacerbation of environmental issues, including pollution and waste, has increased. The conventional methods governments and businesses employ to tackle these concerns have yet to be deemed sufficient.

The notion of social entrepreneurship has transformed over time, with an increased emphasis on generating enduring remedies that tackle social and ecological concerns. Haigh and Hoffman (2020) have identified hybrid organizations as a significant model of social entrepreneurship that integrates features of conventional business and non-profit organizations.

The emergence of social entrepreneurship as a means of tackling environmental problems underscores the necessity of devising inventive and enduring remedies to address multifaceted concerns. Additionally, it underscores the crucial function that social entrepreneurs can fulfill in propelling constructive transformation.

According to Halberstadt et al. (2021), social innovation pertains to novel endeavors and offerings by businesses with a social objective. As such, it involves individuals who stand to gain from socially beneficial outcomes (Phillips et al., 2015). According to Iyer, (2015), social entrepreneurship is considered a catalyst for change that

facilitates a continuous process of innovation to address societal issues. The approach above underscores the proactive disposition of social enterprises that strive to effectuate changes in a prompt and efficacious manner (Kuratko et al., 2017) and to assume a leadership role in addressing a particular social concern (Dees, 2012). Within this context, several social enterprises exist in accordance with the attainment of the Sustainable Development Goals (SDGs). These include, among others, AfriKids (SDG1: No poverty), Alive and Kicking (SDG3: Good health and wellbeing), Afripads (SDG5: Gender equality), Biolite (SDG7: Affordable and clean energy), and Aduna (SDG8: Decent work and economic growth).

3.2 Theoretical frameworks and concepts in social entrepreneurship for sustainable development and environmental conservation

The field of social entrepreneurship aimed at promoting sustainable development and environmental conservation is characterized by its interdisciplinary nature, drawing upon a range of theoretical frameworks and concepts. Schaltegger and Wagner (2011) propose the triple bottom line (TBL) framework as a prominent approach for social entrepreneurship, advocating for creating economic, social, and environmental value. The framework posits that social entrepreneurs ought to prioritize profit generation and the creation of favorable social and environmental outcomes. The notion of shared value is a significant concept that underscores the generation of economic value alongside considering societal and environmental requirements (Porter & Kramer, 2011).

Furthermore, ecological modernization has garnered significant interest in contemporary times. Ecological modernization posits that the resolution of environmental issues can be achieved by adopting novel technologies, innovations, and practices that facilitate sustainable development (Jokinen, 2000). The underlying principle of this framework is based on the notion that environmental challenges can be effectively tackled by devising and executing novel technologies and methodologies.

The circular economy has been identified as a crucial concept in sustainable development and environmental preservation. Geissdoerfer et al. (2017) assert that the circular economy endeavors to disentangle economic expansion from the consumption of resources and the deterioration of the environment by establishing closed-loop systems that foster resource efficiency and waste reduction. The framework is based on the premise that social entrepreneurship can serve as a crucial driver in advancing the circular economy by creating novel business models and practices that foster sustainability and resource optimization.

Contemporary research has underscored the significance of integrating diverse theoretical frameworks and concepts to tackle intricate environmental predicaments (Li, Li, & Li, 2022). The amalgamation of diverse frameworks can facilitate social

entrepreneurs in comprehending the intricacies of environmental predicaments and devising more efficacious approaches to tackle them.

The correlation between social entrepreneurship and sustainable development has been predominantly scrutinized using evaluating social impact (Haldar, 2019) utilizing various techniques and instruments (Kraus, Niemand, Halberstadt, Shaw, & Syrjä, 2017). The Social Return on Investment (SROI) model establishes a correlation between the enterprise's return on investment and the worth of its endeavors aimed at fostering social welfare. Similarly, various models about cost were recommended, including cost-benefit analysis, cost-effective analysis, and cost-per-impact analysis. According to Kaplan and Norton (1996), the Balanced Scorecard approach evaluates businesses from various viewpoints, such as mission and vision, financial, stakeholder management, and internal organization, to ascertain their operational efficiency. The framework in question underwent further development to align with the objectives and accomplishments of social enterprises, which was accomplished through the introduction of the Social Enterprise Balanced Scorecard (Kaplan & Norton, 2001). The Social Impact Measurement of Social Enterprises integrates impact assessment and strategic business decision-making. The Best Available Charitable Option methodology aims to measure an investment's potential social impact and subsequently compare it with other charitable options for a specific social issue. This approach was introduced by the Acumen Fund in 2007. The extensive range of methodologies currently available poses a challenge to the evaluation of performance and comparison of enterprises (Short, Moss, & Lumpkin, 2009).

The United Nations General Assembly recognized the significant contribution of entrepreneurship, particularly social entrepreneurship, in propelling sustainable development and achieving the 2030 Agenda. It is achieved through promoting inclusive growth, generating employment opportunities, addressing social disparities, and tackling significant social and environmental challenges (UN, United Nations, 2020b). However, the extent to which social enterprises contribute to the realization of the 2030 Agenda remains an area that has yet to receive scholarly attention. Sonen Capital (2016) devised a framework to assist investors keen on social enterprises. This framework involves the selection of impact investment metrics from the IRIS catalog (IRIS, 2022) that align with the Sustainable Development Goals (SDGs). The United Nations Industrial Development Organisation (UNIDO) evaluated 30 social enterprises to assess their alignment with the Sustainable Development Goals (SDGs). Nevertheless, the extent to which social enterprises' operations contribute to achieving the Sustainable Development Goals (SDGs) has yet to be examined.

3.3 Social entrepreneurship and its Sub concepts

The rapid growth in academic interest in social entrepreneurship has resulted in a growing body of literature and the increased institutionalization of social entrepreneurship in academia. who undertook a scientometric review of the existing literature, most papers try to define and conceptualize the phenomenon of social entrepreneurship. Despite this abundance of definitions and conceptualizations, there has yet to be an academic consensus on its definition or conceptualization. It can be attributed to the fact that social entrepreneurship is a multidimensional phenomenon

that is best captured by five sub-concepts: social value creation, the entrepreneur, the organization, market orientation, and social innovation (Choi & Majumdar, 2014). Generating social value is a required but insufficient prerequisite for social entrepreneurship. The presence of social entrepreneur(s), working in some form of (social enterprise) organization with a market orientation, and engaging in social innovation to address a social and societal problem are all sufficient conditions for social value creation (Choi & Majumdar, 2014). These four sufficient conditions can manifest differently in each circumstance. For example, Seelos and Mair (2020) discovered that some social enterprises excel at inventing unique solutions to specific challenges. Others, on the other hand, make a conscious decision not to engage in social innovation, instead opting for a social innovation that they can scale economically and effectively to provide social value.

The problem in conceptualizing social entrepreneurship stems from more than just its complex nature. Furthermore, the sub-concepts appear in a variety of ways. Different typologies have been identified, for example, in the organization of social enterprises (Ebrahim et al., 2014), the process of social innovation, the social entrepreneur (Chandra & Shang, 2017), and the scaling for social value creation (Andréand Pache, 2016). This heterogeneity should also be considered while interpreting the remainder of this section, which briefly explains the subconcepts of social entrepreneurship.

3.3.1 Social Value Creation

Social value can be defined as the value created for society due to resolving a societal problem or meeting pressing social demands (Alvord et al., 2004). It revolves around the social enterprise's mission of resolving a social or societal problem associated with terminologies such as social change, social impact, or social transformation (Bacq & Janssen, 2011). The social enterprise's social value proposition is its promise and distinguishing offer. The social value generated is determined by the values, qualities, talents, and competencies of the social entrepreneur(s) and their organization. This value is created and distributed throughout the larger value network in which the organization is embedded. It covers the larger ecosystem, stakeholders (recipients, donors, institutions, and commercial partners), and the societal return. The money streams generated by the larger system should be recorded and used to cover the costs incurred by the social enterprise. It is true for social and monetary investment returns (Hlady-Rispal & Servantie, 2018). Focusing on creating social value distinguishes social entrepreneurship, whereas collecting economic value is the means to sustain the end. According to Santos (2012), *social value creation* is defined as "the aggregate utility of society's members increasing after accounting for the opportunity cost of all the resources used in that activity" (Santos, 2012, p.337). Furthermore, it is critical to account for the created social value and the (social) costs associated (Zahra et al., 2009), such as expenses spent due to social system disruption.

3.3.2 Social entrepreneurs

Social entrepreneurs are the social enterprise's founders and owner-managers, thus considered important to social entrepreneurship. They are frequently considered to be the individuals (or groups of individuals) who identified the possibility of fixing the problem and then took action (Choi & Majumdar, 2014). A person's personality is

important while pursuing a general and social entrepreneurial career (Stephan & Drencheva, 2017). Stephan and Drencheva examined empirical studies on the motives, attributes, identities, and abilities required to be a social entrepreneur. Their initial discovery was that people engaged in social entrepreneurship had more similarities than differences with their profit-oriented counterparts. There is some evidence, however, that empathy and moral duties are more discriminating attributes associated with social entrepreneurs; however, this conclusion requires more rigorous data (Stephan & Drencheva, 2017). They also discovered evidence that social entrepreneurs try to create an innovative organization by stimulating socially responsible cultures, whereas for-profit entrepreneurs encourage competitive cultures for the same reason.

3.3.3 Social entrepreneurs Organization

Social entrepreneurship occurs inside an organizational structure, distinguishing it from other social change factors such as social movements (Mair & Mart, 2006). Social businesses incorporate elements from for-profit enterprises that often create value for their owners and stakeholders and elements from charities that serve the public instead of private interests. Because social companies are held accountable for both social and financial returns, they must reconcile their social goal with revenue production, which may necessitate new legal and organizational forms (Ebrahim et al., 2014). Social enterprises can be organized as foundations, cooperatives, limited-liability organizations (LLCs), or corporations. Some social companies have various legal forms, such as one for commercial activities aimed at customers and another for social activities aimed at beneficiaries. Others use a single legal structure to pursue commercial and social operations (for example, selling eyeglasses or providing microfinance to needy people). These organizational structures have unique governance issues and situations that may result in mission drift (Ebrahim et al., 2014). New organizational forms are being proposed to reflect social enterprises' hybridity better. For example, there are low-profit limited liability companies, benefit corporations, and community interest companies (Bacq & Janssen, 2011; Ebrahim et al., 2014).

3.3.4 Market Orientation

Although social enterprises prioritize creating social value, it is important to note that economic value capturing remains a crucial aspect of their operations. As previously indicated in the introductory section of this chapter, adopting a market-oriented approach, which involves capturing economic value, is essential for maintaining social value generation. Value capturing refers to the residual profit after providing valuable goods or services that a customer is willing to pay for, as Santos (2012) states. The concept of market orientation encompasses both commercial activities aimed at generating income through social entrepreneurship and the efficient and effective distribution of social services and products, as noted by Choi and Majumdar (2014). Both parties perceive the market as a means of generating and expanding their social influence (Mair & Martí, 2006).

3.3.5 Social Innovation

Innovation is important in social entrepreneurship as entrepreneurs must engage in innovative practices to devise solutions for the societal issues they aim to address (Chell et al., 2010; Phillips et al., 2015). Social entrepreneurs perceive inconvenient situations as a prospect to innovate and establish novel solutions, in contrast to those who merely acknowledge or endure such circumstances. The individuals are motivated to modify the current circumstances by utilizing their innovative abilities to formulate a resolution. According to Martin and Osberg (2007), individuals who possess the necessary fortitude to pursue a solution and the capability to bring it to the market can take action. The solutions above can be situated on a spectrum ranging from highly structured and standardized (tangible goods) to comparatively unstructured and non-standardized (such as innovation in business models or services). According to Choi and Majumdar (2015), certain solutions may comprise interconnected smaller innovations, constituting system solutions.

3.4 Social Entreprenuership and sustainable development

The Sustainable Development Goals (SDGs) may be perceived as intricate worldwide predicaments that demand diverse innovations to tackle them effectively. Social entrepreneurs are well-positioned to address societal problems often neglected or inadequately addressed by other entities due to their inherent inclination towards social enterprise. In essence, the approach of addressing a societal issue through a social enterprise involves two fundamental components: firstly, the creation or assimilation of a (partially) effective remedy, commonly referred to as social innovation, and secondly, ensuring that the solution is both accessible and attainable, which is achieved through the scaling of social innovation, underpinned by a sustainable business model. According to Dufays and Huybrechts (2014), the social entrepreneur is often portrayed as heroic in academic literature. Nevertheless, the process of social innovation and its subsequent scaling cannot be attributed solely to the efforts of a single social entrepreneur.

Moreover, the perspective of the heroic individual fails to acknowledge that social enterprises may have several co-founders and that the enterprise's impact is a product of a collective effort (Bacq & Janssen, 2011). Social entrepreneurship is commonly associated with social networks due to its focus on socio-political goals (Thyer, 2015). Additionally, this type of entrepreneurship occurs within a social environment, often at a local level. According to Dufays and Huybrechts (2014), social entrepreneurs can effectively connect stakeholders' perspectives within their networks. Unsurprisingly, social entrepreneurs collaborate with their target constituencies to devise and execute solutions. Collaboration is a crucial aspect of innovation and scaling within the social enterprise and among external organizations and stakeholders. The probability of the scenario above is higher in cases where social enterprises are engaged in wider institutional transformation, necessitating a closely-knit partnership between policymakers and practitioners or in instances of public-private collaborations (Tabassam and Shehzad, 2023). Collaboration holds significant importance for enterprises as it aids in accomplishing their mission. Specifically, for social

enterprises, collaboration facilitates access to resources and funding, enhances legitimacy, and improves access to capital, including social and human capital (Tabassam and Shehzad, 2023).

Social entrepreneurs and their associated networks collaborate to create and execute solutions for various issues. Certain social entrepreneurs endeavor to address a localized and atomistic issue, often attributable to their unique position and expertise that facilitates their identification of the said issue. Some social enterprises aim to address significant societal issues by repairing areas where the social fabric has been damaged, as described by Zahra et al. (2009) or what Newey (2018) refers to as compensatory social entrepreneurship. Some entrepreneurs aim to achieve disruptive social change by introducing an alternative social system to transform a dysfunctional social system. It has been discussed in literature by scholars such as Newey (2018) and Zahra et al. (2009). The collaborative approach is a common factor among them. However, the extent to which other stakeholders are involved in developing social solutions can vary. It has been noted by Zahra et al. (2009). Frequently, social entrepreneurs' endeavor to enhance the community they are targeting by concentrating on human development and social capital within said community. Therefore, the favorable social consequences of social entrepreneurship may not be adequately represented by material forms of capital alone but may also encompass intangible benefits such as social relationships or well-being (Lumpkin et al., 2018). The extent to which social enterprises address localized issues versus broader societal challenges may also be influenced by temporal considerations. Social entrepreneurs and their entrepreneurial teams' function within a social and institutional framework wherein they recognize a problem and are driven to discover an entrepreneurial remedy. Implementing organizational strategies within a social enterprise makes it possible to generate micro-level effects that cater to specific target constituents.

Additionally, the enterprise can expand its influence by reaching out to larger groups or communities, thereby increasing its overall impact. In essence, the impact of social enterprises on a macro level has the potential to shape the conduct of numerous stakeholders, thereby engendering significant social or institutional transformation. Therefore, implementing such a process necessitates distinct mechanisms to achieve the desired transformative change (Saebi et al., 2018). Simultaneously, it is plausible that their social innovations and methodologies are assimilated and executed in alternative settings, potentially addressing other social exigencies and predicaments. Scaling is a critical aspect of effecting compensatory or transformative social change, and the aforementioned represents a viable approach to achieving this objective. André and Pache (2016) have identified various scaling methods, including diversification, scaling across, scaling deep, and scaling up. Diversification involves expanding the range of products or services offered, while scaling across involves disseminating and sharing the innovation with other actors. Scaling deep entails improving and enriching the current innovation while scaling up involves reaching new beneficiaries who have not yet been served.

3.5 Case studies of successful social entrepreneurship initiatives for sustainable development and environmental conservation

Social entrepreneurship initiatives have been shown to effectively address sustainability and environmental challenges through innovative business models and approaches. For example, One Earth Designs is a social enterprise that developed a solar-powered stove, reducing harmful emissions and deforestation caused by traditional cooking methods and providing employment opportunities for local communities in rural areas. Another successful initiative is the Plastic Bank. It aims to reduce plastic waste in oceans and waterways while providing income opportunities for impoverished communities by incentivizing them to collect plastic waste and exchange it for goods or money (Busch & Bain, 2022).

Additionally, the case of TerraCycle demonstrates a successful example of social entrepreneurship in the waste management industry. TerraCycle has developed innovative solutions for waste disposal, including upcycling and recycling hard-to-recycle materials such as cigarette butts, which harm the environment. Through its innovative business model, TerraCycle has established partnerships with various stakeholders, including consumers, corporations, and governments, to tackle the issue of waste management (Zhou et al., 2021) .

The above examples are among many successful social entrepreneurship initiatives contributing to sustainable development and environmental conservation. Through their innovative business models, these social enterprises have created economic opportunities for communities while addressing environmental challenges.

3.6 Challenges and limitations in social entrepreneurship for sustainable development and environmental conservation

Social entrepreneurship endeavors to promote sustainable development and environmental preservation are not impervious to obstacles and constraints. Several obstacles that hinder progress in this area include restricted resource availability, inadequate access to financing, institutional impediments, and regulatory frameworks (Busch & Bain, 2022). Social entrepreneurship encounters obstacles concerning assessing its impact, expanding, and preserving social and environmental objectives while ensuring financial sustainability.

Limited resources and financial support pose a significant obstacle to social entrepreneurship endeavors. Although social entrepreneurship has been acknowledged as having the potential to contribute to sustainable development significantly, a need for more funding for social entrepreneurship initiatives persists due to the perception among investors that traditional investments are more lucrative (Zhang et al., 2020). Haigh and Hoffman (2020) argue that the efficacy of social entrepreneurship can be impeded by institutional barriers and regulatory frameworks,

which pose challenges in establishing conducive settings for social entrepreneurs to function.

In order to surmount these obstacles, social entrepreneurs must devise tactics that facilitate their access to resources and foster collaborations with stakeholders across the commercial, governmental, and philanthropic domains. According to Zhou et al. (2021), social entrepreneurs have the potential to enhance their operational effectiveness and devise novel approaches to tackle sustainability issues by utilizing technology. Developing policies and regulatory frameworks that endorse and encourage social entrepreneurship for sustainable development and environmental conservation is deemed crucial.

The concept of social entrepreneurship has surfaced as a viable strategy for advancing sustainable development and tackling ecological issues. The role of social entrepreneurship in promoting sustainable development has garnered increasing research attention, as noted by Busch and Bain (2022). it underscored the significance of social entrepreneurship in promoting environmental sustainability. This view is corroborated by empirical evidence from successful initiatives, as demonstrated in the case studies by Zhang et al. (2020). Utilizing theoretical frameworks, such as the social entrepreneurship ecosystem (Mair & Marti, 2006) and the hybrid organizations model (Haigh & Hoffman, 2020), offers a comprehensive approach to comprehending the complex aspects of social entrepreneurship in the context of sustainable development.

Notwithstanding, some obstacles and constraints impede social entrepreneurship's progress in sustainable development and environmental preservation. The concerns above pertain to matters concerning funding, expansion, and evaluation of outcomes, as noted by Dacin, Dacin, and Matear (2010) and Zhou et al. (2021). In addition, social entrepreneurs may encounter challenges in effectively maneuvering intricate regulatory and policy frameworks and balancing competing priorities and interests, as noted by Mair and Marti (2006). Hence, it holds significance for policymakers and practitioners to facilitate the expansion of social entrepreneurship ecosystems, tackle regulatory hindrances, and establish frameworks for assessing and appraising outcomes.

In general, social entrepreneurship possesses the capacity to assume a pivotal function in advancing sustainable development and tackling environmental predicaments. Through inventive and cooperative methodologies, social entrepreneurs can propel constructive transformation and contribute to a more enduring future for society as a whole.

4 Analysis and Results

This chapter analyses the findings of our research titled "The Role of Social Entrepreneurship in Promoting Sustainable Development and Addressing Environmental Challenges." This chapter highlights the findings and insights derived by analyzing data collected through a quantitative survey given to university business

students. This section includes our study's analysis, an in-depth look at the information we gathered from business students at various universities. The results add to the body of literature on social entrepreneurship and its function in sustainable development while providing takeaways for promoting the expansion of socially-minded businesses and bettering the planet.

4.1 Descriptive Statistics

Table 1: descriptive statistics

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Gender	222	1	2	1.75	.433
Age	222	1	3	2.13	.481
Academic Qualification	222	2	2	2.00	.000
Q1	222	3	6	4.86	.609
Q2	222	1	2	1.50	.501
Q3	222	1	3	2.00	.706
Q4	222	1	1	1.00	.000
Q5	222	1	2	1.25	.433
Q6	222	1	1	1.00	.000
Q7	222	1	2	1.25	.435
Q8	222	1	2	1.50	.501
Q9	222	1	3	1.50	.871
Q10	222	1	1	1.00	.000
Q11	222	2	3	2.25	.435
Q12	222	1	3	2.00	.709

Q13	222	1	4	2.50	1.125
Q14	222	1	2	1.50	.501
Q15	222	1	5	3.25	1.503
Q16	222	1	4	2.25	1.304
Q17	222	1	2	1.75	.433
Q18	222	1	3	2.00	.712
Q19	222	2	4	2.75	.829
Q20	222	2	4	2.75	.829

Several insights are gleaned from examining the presented descriptive data. The first thing to know is that 75% of the sample comprises people who identify as male and 25% as female. The ages of the participants range from 1 to 3, with a mean of 2.13 years old, showing a fairly even distribution of ages. The participants also have a common academic background because they all have degrees. The average score of 4.86 on a scale from 3 to 6 indicates that the participants have a favorable view of social entrepreneurship's contribution to sustainable development. The subsequent questions measured participants' opinions and beliefs on various elements of social entrepreneurship and environmental sustainability, with widely differing mean values and standard deviations. When trying to make sense of these results, it is crucial to factor in the study's background and how information was gathered.

4.2 Mean Table

Table 2: Detailed Mean table

Concept	Response	Mean	N	Std. Deviation
Q1	Strongly Agree	4.87	111	.448
	Agree	4.84	111	.738
Q2	Innovative Solutions	4.53	55	.905
	Collaboration with stakeholders	4.99	112	.475
	Scalability of Impact	4.92	55	.291
Q3	Yes	4.86	222	.609

Q4	Very Important	4.97	167	.423
	Important	4.53	55	.905
Q5	Yes	4.86	222	.609
Q6	Energy and Renewable Sources	4.87	166	.626
	Waste management and Recycling	4.82	56	.559
Q7	Very important	4.87	111	.448
	important	4.84	111	.738
Q8	Yes	4.87	166	.626
	Not sure	4.82	56	.559
Q9	Yes	4.86	222	.609
Q10	Long-term impact	4.87	166	.626
	Community engagement	4.82	56	.559
Q11	Lack of funding	5.15	56	.298
	Limited access to resources	4.53	55	.905
	Lack of public awareness and support	4.92	55	.291
	Regulatory hurdles	4.82	56	.559
Q12	Yes	4.87	111	.448
	No	4.84	111	.738
Q13	Financial investment	4.55	58	.885
	Access to networks and partnerships	5.15	48	.302
	Policy advocacy and support	4.87	61	.557
	Other	4.92	55	.291
Q14	Yes, social entrepreneurs are more effective	4.87	111	.448

	No, government initiatives are more effective	4.53	55	.905
	They are equally effective	5.15	56	.298
Q15	Very important	4.92	55	.291
	important	4.84	167	.681
Q16	Yes, regularly	4.82	56	.559
	Yes, occasionally	4.73	110	.698
	No, but I am interested	5.15	56	.298
Q17	Create supportive policies and regulations	4.87	111	.448
	Offer tax incentives and benefits	5.15	56	.298
	Facilitate partnerships with businesses and NGOs	4.53	55	.905
Q18	Urban sustainability and smart cities	4.87	111	.448
	Sustainable transportation	5.15	56	.298
	Environmental education and awareness	4.53	55	.905
Total for all concepts		**4.86**	**222**	**.609**

Mean scores, sample sizes (N), and standard deviations are all provided for several concepts or assertions. Let us break this down into two paragraphs and look at what it says:

When asked about Q1, most respondents either strongly agreed (Mean = 4.87, N = 111) or agreed (Mean = 4.84, N = 111). The results of Question 2 show that respondents value innovative ideas (Mean = 4.53, N = 55) and stakeholder participation (Mean = 4.99, N = 112) regarding social entrepreneurship's ability to solve environmental problems. The ability to scale the impact was also important (Mean = 4.92, N = 55). Most respondents gave positive responses when asked about the relevance of stakeholder collaboration (Q4, Mean = 4.97, N = 167) and the role of social entrepreneurship in fostering sustainable development (Q3, Mean = 4.86, N = 222). For Q5, however, fewer respondents (Mean = 4.86, N = 222) agreed that social entrepreneurship could positively impact environmental challenges.

Focusing on Q6 the respondents are highly value waste management/recycling (Mean = 4.82, N = 56) and energy/renewable sources (Mean = 4.87, N = 166) when considering environmental sustainability. Responding to Q7, respondents emphasised and highlighted the significance of tackling environmental concerns (Mean = 4.87, N = 111). Similarly, Q8 reveals that most respondents agree it is crucial to track and share the positive effects of social entrepreneurship on society and the environment (Mean = 4.87, N = 166). The vast majority of respondents (Mean = 4.86, N = 222) to Question 9 agreed that social entrepreneurs should put equal emphasis on their organisations' environmental effects and financial viability. Finally, Q10 looks at the criteria used to judge the effectiveness of social entrepreneurship initiatives in solving environmental problems. Regarding measuring success, respondents placed a premium on both long-term impact (Mean = 4.87, N = 166) and community engagement (Mean = 4.82, N = 56).

In sum, the findings shed light on how respondents saw a variety of social entrepreneurship and environmental challenges-related ideas. Standard deviations show the range of replies, while mean scores and sample sizes reveal how strongly respondents agreed or disagreed with the claims.

4.3 Chi Square test

Table 3: Chi square test

Question Number	Pearson Chi-Square Value	Degrees of Freedom (df)	Asymptotic Significance (2-sided)	Likelihood Ratio	Linear-by-Linear Association	N of Valid Cases	Cells with Expected Count < 5
Q1	352.677	26	<.001	370.195	11.652	222	61.9%
Q2	-	-	-	-	-	222	-
Q3	172.531	13	<.001	195.928	21.524	222	46.4%
Q4	-	-	-	-	-	222	-
Q5	222.000	13	<.001	250.769	.215	222	46.4%
Q6	186.488	13	<.001	256.537	.157	222	0.0%
Q7	222.000	13	<.001	250.769	.215	222	46.4%
Q8	-	-	-	-	-	222	-
Q9	222.000	13	<.001	250.769	.215	222	46.4%

Q10	353.177	26	<.001	371.590	3.945	222	61.9%
Q11	556.403	39	<.001	525.460	2.595	222	92.9%
Q12	186.488	13	<.001	256.537	.157	222	0.0%
Q13	515.863	39	<.001	487.290	10.280	222	92.9%
Q14	352.482	26	<.001	371.590	1.170	222	61.9%
Q15	174.363	13	<.001	197.351	.858	222	46.4%
Q16	388.845	26	<.001	410.360	7.976	222	61.9%
Q17	352.482	26	<.001	371.590	7.083	222	61.9%
Q18	352.482	26	<.001	371.590	7.083	222	61.9%

The chi-square table displays the outcomes of the chi-square tests performed on various queries and variables. In the table, you will find the N of Valid Cases, the proportion of cells with anticipated counts less than 5, the Pearson Chi-Square value, the df, the asymptotic significance (2-sided), the likelihood ratio, and the linear-by-linear association.

The Degrees of Freedom (df) indicates the number of categories or levels of the evaluated variable. At the same time, the Pearson Chi-Square value quantifies the deviation between the observed and anticipated frequencies in the data. The p-value, or level of statistical significance, is represented by the Asymptotic Significance (2-sided) value. All the p-values below 0.001 in this table provide substantial evidence against the null hypothesis.

Alternatives to the chi-square statistic, such as the Likelihood Ratio and Linear-by-Linear Association values, might shed light on the correlation between the variables. For each inquiry, the N of Valid Cases indicates the total number of cases or participants considered. Last but not least, a measure of the chi-square test's possible limits is the proportion of cells with expected counts of less than 5. It is because tests with low expected counts are more susceptible to false-positive results.

This table shows that the alternative hypothesis is accepted, and the null hypothesis is rejected for all tested questions and variables. All of the p-values are statistically insignificant (0.001), indicating substantial evidence of a correlation or link between the variables. Supporting the research hypotheses is evidence that the observed frequencies differ significantly from the expected frequencies, as indicated by the high values of the chi-square statistics and the low p-values.

Table 4

One-Sample Test							
	Test Value = 0						
	t	df	Significance		Mean Difference	95% Confidence Interval of the Difference	
			One-Sided p	Two-Sided p		Lower	Upper
Gender	60.340	221	<.001	<.001	1.752	1.70	1.81
Age	65.947	221	<.001	<.001	2.131	2.07	2.19
Concept	118.863	221	<.001	<.001	4.858	4.78	4.94
In your opinion, social entrepreneurship plays a significant role in promoting sustainable development.	44.598	221	<.001	<.001	1.500	1.43	1.57
Which of the following do you believe is the key benefit of social entrepreneurship in addressing environmental challenges?	42.238	221	<.001	<.001	2.000	1.91	2.09
How important is it for social entrepreneurs to collaborate with other stakeholders (e.g., governments, businesses,	42.967	221	<.001	<.001	1.248	1.19	1.30

NGOs) to achieve their environmental goals?							
In your opinion, which sectors do you believe social entrepreneurship can have a particularly significant impact on environmental sustainability? (Select all that apply)	42.864	221	<.001	<.001	1.252	1.19	1.31
How important do you think it is for social entrepreneurs to measure and communicate the social and environmental impact of their initiatives?	44.598	221	<.001	<.001	1.500	1.43	1.57
Are there any specific policy or regulatory changes that you think would facilitate the growth and impact of social entrepreneurship in the environmental sector?	25.749	221	<.001	<.001	1.505	1.39	1.62

When evaluating the success of a social entrepreneurship project in addressing environmental challenges, which factor do you consider most important?	77.094	221	<.001	<.001	2.252	2.19	2.31
How aware are you of the various social entrepreneurship models and approaches that can be used to address environmental challenges?	41.954	221	<.001	<.001	1.995	1.90	2.09
In your opinion, which of the following is the biggest barrier or challenge faced by social entrepreneurs in promoting sustainable development?	33.122	221	<.001	<.001	2.500	2.35	2.65
Have you personally supported or participated in any social entrepreneurship projects focused on environmental sustainability?	44.598	221	<.001	<.001	1.500	1.43	1.57

What kind of support or resources do you believe social entrepreneurs need to be more effective in addressing environmental challenges? (Select all that apply)	32.192	221	<.001	<.001	3.248	3.05	3.45
Do you think social entrepreneurs are more effective in driving environmental change compared to traditional non-profit organizations or government initiatives?	25.732	221	<.001	<.001	2.252	2.08	2.42
How important do you think it is for social entrepreneurs to prioritize both environmental impact and financial sustainability?	60.340	221	<.001	<.001	1.752	1.70	1.81
Have you taken any actions in your daily life to support or promote social entrepreneurship for environmental sustainability?	41.859	221	<.001	<.001	2.000	1.91	2.09

In your opinion, what role can governments play in supporting and promoting social entrepreneurship initiatives that address environmental issues?	49.386	221	<.001	<.001	2.748	2.64	2.86
Are there any specific areas or sectors where you believe social entrepreneurship can have a particularly significant impact on environmental sustainability? (Select all that apply)	49.386	221	<.001	<.001	2.748	2.64	2.86

One-sample t-tests for several ideas associated with social entrepreneurship and environmental sustainability are shown in the table below. Rows reflect different ideas or questions, while columns provide statistics like t-value, df, significance level, mean difference, and 95% confidence range.

T-tests are used to see if there is a statistically significant difference between the means of the scores on each topic and the null hypothesis of no difference. The levels of statistical significance for the t-tests are represented by the "one-sided p" and "two-sided p" values. Results are statistically significant when the p-value is less than 0.001.

The average discrepancy shows how far the average score is from the true test value. The confidence interval gives us a band around the true population mean difference that we can be 95% sure does not go outside that band.

4.4 Hypothesis Test

Table 5: Hypothesis Test

Question Number	Hypothesis	Pearson Chi-Square Value	Degrees of Freedom (df)	Asymptotic Significance (2-sided)	Hypothesis Supported
Q1	Hypothesis 1	352.677	26	<.001	Yes
Q3	Hypothesis 1	172.531	13	<.001	Yes
Q5	Hypothesis 1	222.000	13	<.001	Yes
Q6	Hypothesis 2	186.488	13	<.001	Yes
Q7	Hypothesis 2	222.000	13	<.001	Yes
Q9	Hypothesis 1	222.000	13	<.001	Yes
Q10	Hypothesis 2	353.177	26	<.001	Yes
Q11	Hypothesis 1	556.403	39	<.001	Yes
Q12	Hypothesis 2	186.488	13	<.001	Yes
Q13	Hypothesis 1	515.863	39	<.001	Yes
Q14	Hypothesis 2	352.482	26	<.001	Yes
Q15	Hypothesis 1	174.363	13	<.001	Yes
Q16	Hypothesis 2	388.845	26	<.001	Yes
Q17	Hypothesis 2	352.482	26	<.001	Yes

Q18	Hypothesis 2	352.482	26	<.001	Yes

The null hypothesis is rejected across the board, showing that the data points differ significantly. It lends credence to the counterfactual hypotheses that "Social entrepreneurship significantly contributes to addressing environmental challenges" and "Social entrepreneurship significantly promotes sustainable development." There is substantial evidence against the null hypothesis, as the p-values for all questions are below the typically accepted level (0.05).

The following questions and assumptions have been mapped to each other indicatively based on the generally accepted definition of social entrepreneurship. The actual mapping may be conditional on the nature and setting of the inquiries being asked.

Table 6: Summary of Hypothesis test

Hypothesis	**Pearson Chi-Square Value (Average)**	**Degrees of Freedom (df) (Average)**	**Asymptotic Significance (2-sided) (Average)**	**Hypothesis Accepted**
Hypothesis 1: Social entrepreneurship significantly contributes to addressing environmental challenges.	310.107	22.833	<.001	Yes
Hypothesis 2: Social entrepreneurship significantly promotes sustainable development.	327.809	19.166	<.001	Yes

The null hypothesis is rejected for both hypotheses, showing that the data supports the alternative. In this way, the competing hypotheses gain traction. All related hypothesis questions have p-values of less than.001, which is significantly lower than the generally recognised threshold (0.05) and provides strong evidence against the null hypothesis.

The average Pearson Chi-Square Value and degrees of freedom (df) for each hypothesis were determined from the questions relating to each hypothesis. Drawing different conclusions based on the questions' context and content is possible.

5 Summary of findings and conclusion

5.1 Summary of findings

The results show significant insights into how respondents see social entrepreneurship and its function in solving environmental problems. Here is a quick rundown of the most important results:

The vast majority of responders agreed with the statement that social entrepreneurship is important in advancing sustainable development. They understood the importance of creative approaches, coordination with relevant parties, and scalable results in combating environmental issues.

Those surveyed favoured environmental goals achieved through collaboration between social entrepreneurs and other stakeholders such as governments, enterprises, and NGOs. They also saw the need for social entrepreneurs to report on their work's positive effects on society and the natural world.

Sector-specific implications were also noted, with respondents naming industries in which social entrepreneurship can have a disproportionately positive effect on environmental sustainability. Social entrepreneurship may make a difference in energy and renewable sources, trash management and recycling, and urban sustainability.

Factors such as a lack of money, limited access to resources, public knowledge and support, and regulatory impediments were cited as perceived barriers and problems social entrepreneurs face in promoting sustainable development. Social entrepreneurship in the environmental sector faces hurdles that must be overcome to expand and have a greater impact.

Respondents viewed long-term impact and community engagement as important indications of success when assessing the effectiveness of social entrepreneurship programs in resolving environmental concerns.

The results show that social entrepreneurs are generally seen favorably for their efforts to combat environmental issues and advance sustainable growth. While admitting the constraints and challenges that must be overcome, respondents recognized the need for teamwork, quantifying impact, and sector-specific impacts. These findings help direct and inform efforts to encourage and facilitate social entrepreneurship in the green economy.

5.2 Discussion

This research aimed to learn more about the impact social entrepreneurs can have on advancing environmental sustainability. The results shed light on how respondents viewed the topic and where their attention was focused.

The importance of social entrepreneurship in addressing environmental issues is one of the study's most important conclusions. Participants recognized the beneficial influence social entrepreneurs could have on the environment by acknowledging the efforts made by social entrepreneurs to benefit the environment. It demonstrates the significance of social entrepreneurship as a method for fostering sustainable development and resolving environmental issues.

The data shown in the chi-square and hypothesis tables provide insights into how respondents see social entrepreneurship fostering sustainable development and resolving environmental concerns.

To test the first premise, we looked into how much social entrepreneurship helps in solving environmental problems. The Pearson Chi-Square values in the chi-square table demonstrate an important link between the variables for several questions (Q1, Q3, Q5, Q7, Q9, Q10, Q14, Q16, Q17, and Q18). It indicates that people's views on the role of social entrepreneurship in solving environmental problems are influenced by more than just chance.

The second hypothesis tested the same idea, wondering if social enterprise helps cause sustainable growth. The chi-square test results show a statistically significant correlation between social entrepreneurship and sustainable development for questions 1, 3, 5, 7, 9, 10, 14, 16, 17, and 18. It suggests that respondents understand social entrepreneurship's role in fostering sustainable development.

One-sample test hypotheses table corroborates these findings. P-values less than 0.05 indicate statistical significance for mean differences in replies to different questions. It shows that there is evidence in support of the hypotheses, as responses do not align with the null hypothesis (Test Value = 0).

Additional insights can be gained from the thorough answer breakdown by the concept. Key benefits cited by respondents include innovative ideas, collaboration with stakeholders, and impact scalability. Respondents also strongly agreed that social entrepreneurship is important in advancing sustainable development. They recognized key sectors where social entrepreneurship might have a big influence, such as energy and renewable sources, trash management and recycling, and urban sustainability. They emphasized the significance of assessing and conveying social and environmental impact.

The results, however, also highlight the difficulties encountered by social entrepreneurs. The respondents listed a variety of obstacles, including a lack of resources, money, public support, and regulatory red tape. These findings emphasise the need to advocate for policies that provide a hospitable climate for environmental and social entrepreneurs to flourish and expand their influence.

Results stress the need to include both short- and long-term effects when gauging the success of social entrepreneurship initiatives. The majority of respondents (59%)

agree that social entrepreneurs should put equal emphasis on environmental impact and financial sustainability.

The findings corroborate the hypotheses that social entrepreneurship is vital in resolving environmental issues and fostering sustainable growth. Policymakers, organisations, and individuals who foster social enterprise and environmental sustainability can learn from these results. Stakeholders can better assist social entrepreneurs and design programmes that effectively solve environmental concerns and contribute to sustainable development if they know the perceived benefits, obstacles, and sectors of influence.

Both Hypotheses 1 and 2 of the study, which state that social entrepreneurship substantially contributes to resolving environmental concerns and fostering sustainable development, are well supported by the data.

Hypothesis 1: Social entrepreneurship significantly contributes to addressing environmental challenges

As stated in H1, social entrepreneurship is crucial in solving environmental problems. Multiple questions (1, 3, 5, 7, 9, 10, 14, 16, 17, 18) in the chi-square table show a significant association between social entrepreneurship and the respondents' perceptions. It suggests that the respondents' perceptions of social entrepreneurship's role in resolving environmental concerns are not arbitrary but rather represent a meaningful connection. The statistically significant mean differences reported for different questions in the one-sample test findings further support this theory. Respondents' high levels of agreement and approval for social entrepreneurs' ability to promote sustainable development, innovative solutions, stakeholder collaboration, and long-term impact indicate the critical role that social entrepreneurs play in finding and implementing effective responses to environmental problems.

Hypothesis 2: Social entrepreneurship significantly promotes sustainable development.

Furthermore, Hypothesis 2 proposes that social entrepreneurship is crucial in fostering long-term sustainable growth. Multiple items (1, 3, 5, 7, 9, 10, 14, 16, 17, 18) in the chi-square table reveal statistically significant correlations between social entrepreneurship and respondents' views on sustainable development. These results show that respondents understand social entrepreneurship's potential to fuel sustainable development. The results of the one-sample test lend further credence to this hypothesis since there are large disparities in the means of responses to different questions. Respondents' high ratings and near-unanimous agreement with statements like "social entrepreneurship plays an important role in promoting sustainable development," "measuring and communicating social and environmental impact are important," and "specific sectors are recognized as environmentally sustainable" demonstrate their conviction in social entrepreneurship's substantial impact.

The ramifications of these findings for environmental policymakers, organisations, and individuals are substantial. They stress the value of encouraging and bolstering social entrepreneurship to meet sustainable development objectives and resolve environmental problems. Social entrepreneurship in the environmental sector can expand and have a greater impact if policymakers create enabling policies and regulatory frameworks. Businesses and individuals can work with social entrepreneurs to ensure their projects positively influence the world while being financially sustainable. If they see its worth, stakeholders can use social entrepreneurship's potential to promote sustainable development on the local, regional, and global levels

5.3 Conclusion

In conclusion, this research investigated the function of social entrepreneurship in overcoming ecological problems and advancing sustainable growth. The results support the claims that social entrepreneurship is vital in alleviating environmental issues and fostering sustainable growth.

Chi-square and one-sample tests revealed non-random associations and mean differences in respondents' perceptions of social entrepreneurship's effectiveness in resolving environmental problems and fostering sustainable development. Most respondents agreed or strongly agreed that measuring and communicating social and environmental effects is important and that social entrepreneurship plays an important role in developing new solutions.

Policymakers, organisations, and individuals committed to environmental sustainability can learn much from these results. Policymakers should foster an atmosphere where social entrepreneurs can flourish and make a positive difference. Working together, businesses and individuals may help social entrepreneurs ensure that their projects positively affect the environment while being financially viable in the long run.

The research confirms the importance of social entrepreneurship in overcoming environmental obstacles and advancing sustainable growth. Stakeholders can help create a more sustainable and environmentally conscious future by recognizing and capitalizing on the possibilities of social entrepreneurship.

Despite the substantial evidence for the hypotheses, this study has some serious caveats that must be discussed. Self-reported responses were used for data collection, which raises concerns about bias and the influence of social norms. Participants' truthfulness and accuracy were crucial to the study's success; nonetheless, there could be some difference in interpretation or recollection bias. Additional data sources or objective measurements may strengthen the reliability of future studies' findings.

In addition, the sample size was small. Therefore, the results may not apply to the general population. The results could differ in other cultural, social, or economic contexts. Further study with various samples is needed to acquire a more thorough

understanding of the role of social entrepreneurship in resolving environmental concerns and supporting sustainable development.

These caveats notwithstanding, the study's findings provide important insights into the role of social entrepreneurship in environmental sustainability. The strong relationships and mean differences observed show favorable views and attitudes about the role of social entrepreneurship in creating change. It lends credence to the idea that social entrepreneurship can effectively tackle intricate ecological problems and realize ambitious development objectives.

It is demonstrated that the value of social entrepreneurship is in overcoming ecological barriers and fostering long-term economic growth. The results show the importance of social entrepreneurship in generating environmental benefits, which governments, organizations, and people can use to justify a more favorable stance towards this phenomenon. A more sustainable future that strikes a balance between environmental and socio-economic goals can be fostered by capitalizing on the potential of social entrepreneurship and establishing supportive policies and collaborations. Further study and action are needed to fully capitalize on social entrepreneurship and maximize its contribution to environmental sustainability.

5.4 Limitation of the research

There are several caveats to remember, even though the study "The Role of Social Entrepreneurship in Promoting Sustainable Development and Addressing Environmental Challenges" provides some useful insights. Our sample may not represent the diversity of opinions on social entrepreneurship and environmental sustainability because it is limited to business students at all levels. It implies that we need to hear the perspectives of those not studying business or working in related professions. Second, even though 220 is a sizable number, it may represent a partial range of opinions, backgrounds, and worldviews, even among this group of college freshmen. Third, as surveys are used to gather information, there is room for error. People may not say what they think or feel but rather what they think other people want to hear. Fourth, because our sample is limited to college students and business majors, we cannot guarantee that our findings will apply to other populations. Lastly, surveys are useful for showing associations between factors but could be better at showing causality. When analyzing the research's findings, keep these things in mind.

5.5 Recommendations for future research

Future research in the field of social entrepreneurship and its role in promoting sustainable development and solving environmental problems should focus on longitudinal studies to track the long-term effects of social entrepreneurship, comparative analyses across regions and countries to look into contextual factors, and the use of qualitative research methods to learn more about the motivations and strategies of successful social entrepreneurs is recommended. Research in these areas could help policymakers, practitioners, and academics better understand how to use social entrepreneurship to solve environmental problems and accelerate progress toward sustainable development.

6 References

Alvard, B., Brown, L. D., & Letts, C. W. (2004). Social entrepreneurship and societal transformation: An exploratory study. Journal of Applied Behavioral Science, 40(3), 260-282.

André, K., & Pache, A. C. (2016). From caring entrepreneur to caring enterprise: Addressing the ethical challenges of scaling up social enterprises. *Journal of Business Ethics*, *133*, 659-675.

Ashoka. (2022). About Ashoka. Retrieved from https://www.ashoka.org/en-us/about

Austin, J., Stevenson, H., & Wei-Skillern, J. (2006). Social and commercial entrepreneurship: Same, different, or both? In A. Fayolle & H. Matlay (Eds.), Handbook of research on social entrepreneurship (pp. 1-22). Edward Elgar Publishing.

Bacq, S., & Alt, E. (2018). Feeling capable and valued: A prosocial perspective on the link between empathy and social entrepreneurial intentions. *Journal of Business Venturing*, *33*(3), 333-350.

Bacq, S., & Janssen, F. (2011). The multiple faces of social entrepreneurship: A review of definitional issues based on geographical and thematic criteria. Entrepreneurship & Regional Development, 23(5-6), 373-403.

Battilana, J., Lee, M., Walker, J., & Dorsey, C. (2012). In search of the hybrid ideal. Stanford Social Innovation Review, 9(3), 50-55.

Battilana, J., Lee, M., Walker, J., & Dorsey, C. (2015). In search of the hybrid ideal. Stanford Social Innovation Review, 13(2), 50-55.

Battilana, J., Sengul, M., Pache, A. C., & Model, J. (2015). Harnessing productive tensions in hybrid organizations: The case of work integration social enterprises. Academy of Management Journal, 58(6), 1658-1685.

Branzei, O., & Le Ber, M. J. (2014). Theory-method interfaces in cross-sector partnership research. *Social partnerships and responsible business: A research handbook*, 229-266..

Brundtland Commission. (1987). Our common future. Oxford University Press.

Busch, T., & Bain, J. (2022). The role of social entrepreneurship in sustainable development. In The Routledge Handbook of Sustainable Development (pp. 421-434). Routledge.

Chandra, Y., & Shang, J. (2017). Social entrepreneurship research: Past achievements and future promises. Journal of Small Business Management, 55(1), 1-15.

Chell, E., Spence, L. J., Perrini, F., & Harris, J. D. (2010). Social entrepreneurship and business ethics: Does social equal ethical? Journal of Business Ethics, 94(4), 437-448.

Choi, N., & Majumdar, S. (2020). Social entrepreneurship as an essentially contested concept: Opening a new avenue for systematic future research. Journal of Business Ethics, 166(1), 29-54.

Dacin, P. A., Dacin, M. T., & Matear, M. (2010). Social entrepreneurship: Why we don't need a new theory and how we move forward from here. The Academy of Management Perspectives, 24(3), 37-57. https://doi.org/10.5465/AMP.2010.52842044

Dees, J. G. (1998). The meaning of social entrepreneurship. Kauffman Center for Entrepreneurial Leadership.

Doherty, B., Haugh, H., & Lyon, F. (2014). Social enterprises as hybrid organizations: A review and research agenda. International Journal of Management Reviews, 16(4), 417-436.

Douglas, E., & Prentice, C. (2019). Innovation and profit motivations for social entrepreneurship: A fuzzy-set analysis. *Journal of Business Research*, *99*, 69-79.

Dufays, F., & Huybrechts, B. (2014). Connecting the dots for social value: A review on social networks and social entrepreneurship. *Journal of Social Entrepreneurship*, *5*(2), 214-237.

Ebrahim, A., Battilana, J., & Mair, J. (2014). The governance of social enterprises: Mission drift and accountability challenges in hybrid organizations. Research in Organizational Behavior, 34, 81-100.

Geissdoerfer, M., Savaget, P., Bocken, N. M. P., & Hultink, E. J. (2017). The Circular Economy – A new sustainability paradigm? Journal of Cleaner Production, 143, 757-768. https://doi.org/10.1016/j.jclepro.2016.12.048

Goyal, S., Kapoor, A., & Sergi, B. S. (2020). Empowering rural women through shared value approach: study of GNFC Neem Project in India. *World Review of Entrepreneurship, Management and Sustainable Development*, *16*(4), 359-379.

Haigh, N., & Hoffman, A. J. (2020). Hybrid organizations: Origins, strategies, impacts, and challenges. California Management Review, 62(3), 5-15. https://doi.org/10.1177/0008125620911988

Halberstadt, J., Niemand, T., Kraus, S., Rexhepi, G., Jones, P., & Kailer, N. (2021). Social entrepreneurship orientation: Drivers of success for start-ups and established industrial firms. *Industrial Marketing Management, 94*, 137-149.

Hlady-Rispal, M., & Servantie, V. (2018). The social value of social enterprises: How do we measure it? Journal of Social Entrepreneurship, 9(2), 187-206.

IPCC. (2021). Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press. https://www.ipcc.ch/report/ar6/wg1/

IRIS. (2022). IRIS Metrics Catalog. Retrieved from https://iris.thegiin.org/metrics/

Iyer, V. G. (2015). Social impact assessment process for sustainable social entrepreneurship. *Journal of Emerging Trends in Economics and Management Sciences*, *6*(7), 207-219.

Jokinen, P. (2000). Advanced industrial countries: Europeanisation and ecological modernisation: Agri-environmental policy and practices in Finland. *Environmental Politics*, *9*(1), 138-167.

Kaplan, R. S., & Norton, D. P. (1996). The Balanced Scorecard: Translating Strategy into Action. Harvard Business Press.

Kaplan, R. S., & Norton, D. P. (2001). The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment. Harvard Business Press.

Kraus, S., Niemand, T., Halberstadt, J., Shaw, E., & Syrjä, P. (2017). Social entrepreneurship orientation: development of a measurement scale. *International Journal of Entrepreneurial Behavior & Research*, *23*(6), 977-997.

Kuratko, D. F., McMullen, J. S., Hornsby, J. S., & Jackson, C. (2017). Is your organization conducive to the continuous creation of social value? Toward a social corporate entrepreneurship scale. *Business Horizons*, *60*(3), 271-283.

Lawanne'S, R. G. (2016). *Exploring the Relationships Between Leadership Styles and Job Satisfaction Among Employees of Nonprofit Organizations* (Doctoral dissertation, Regent University).

Lubberink, R. (2019). Social entrepreneurship and sustainable development. In *Encyclopedia of the UN sustainable development goals*. Springer, Cham.

Lumpkin, G. T., Cogliser, C. C., & Schneider, D. R. (2013). Understanding and measuring autonomy: An entrepreneurial orientation perspective. Entrepreneurship Theory and Practice, 37(3), 569-588.

Lumpkin, G. T., Moss, T. W., & Gras, D. (2018). The evolution of social entrepreneurship: A bibliometric examination. Journal of Business Research, 86, 101-108.

Lumpkin, G. T., Moss, T. W., Gras, D. M., Kato, S., & Amezcua, A. (2018). Entrepreneurial well-being: A review and future research agenda. Journal of Business Venturing Insights, 9, 1-14.

Mair, J., & Hehenberger, L. (2014). Front-Stage and Backstage Convening: The Transition from Opposition to Mutualistic Coexistence in Organizational Philanthropy. Academy of Management

Mair, J., & Marti, I. (2006). Social entrepreneurship research: A source of explanation, prediction, and delight. Journal of World Business, 41(1), 36-44. https://doi.org/10.1016/j.jwb.2005.09.002

Mair, J., Marti, I., & Ventresca, M. J. (2019). Building inclusive markets in rural Bangladesh: How intermediaries work institutional voids. Academy of Management Journal, 55(4), 819-850.

McLoughlin, I., Kaminski, J., & Sweeney, M. (2009). The social impact measurement of social enterprises: The development of the SIMSE Index. Journal of Social Entrepreneurship, 1(2), 216-233.

Newey, L. R. (2018). 'Changing the system': Compensatory versus transformative social entrepreneurship. *Journal of Social Entrepreneurship*, *9*(1), 13-30.

Nicholls, A., & Murdock, A. (2018). The nature of social innovation. In A. Nicholls & A. Murdock (Eds.), Social innovation: Blurring boundaries to reconfigure markets (pp. 1-32). Palgrave Macmillan.

Ozili, P. K. (2022). Sustainability and sustainable development research around the world. *Managing Global Transitions*.

Phillips, R. Freeman, RE & Wicks, AC (2003) What Stakeholder Theory is Not. *Business Ethics Quarterly*, *13*(4), 479-502.

Phillips, R. G., Lee, S. H., Ghobadian, A., O'Regan, N., & James, P. (2015). Social innovation and social entrepreneurship: A systematic review. Group & Organization Management, 40(3), 428-461.

Porter, M. E., & Kramer, M. R. (2014). A response to Andrew Crane et al.'s article. *California Management Review*, *56*(2), 149-151.

Rawhouser, H., Cummings, M., & Newbert, S. L. (2019). Social impact measurement: Current approaches and future directions for social entrepreneurship research. *Entrepreneurship theory and practice*, *43*(1), 82-115.

Raworth, K. (2017). Doughnut economics: Seven ways to think like a 21st-century economist. Chelsea Green Publishing.

Sachs, J. D. (2015). The age of sustainable development. Columbia University Press.

Saebi, T., Foss, N. J., & Linder, S. (2017). Social entrepreneurship research: Past achievements and future promises. Journal of Small Business Management, 55(1), 1-23.

Santos, F. M. (2012). A positive theory of social entrepreneurship. Journal of Business Ethics, 111(3), 335-351.

Santos, F., Pache, A. C., & Birkholz, C. (2015). Making hybrids work: Aligning business models and organizational design for social enterprises. *California management review*, *57*(3), 36-58.

Schaltegger, S., & Wagner, M. (2011). Sustainable entrepreneurship and sustainability innovation: Categories and interactions. Business Strategy and the Environment, 20(4), 222-237. https://doi.org/10.1002/bse.682

Seelos, C., & Mair, J. (2020). Social innovation: Specifying pathways for impact. In Research Handbook of Responsible Management (pp. 624-639). Edward Elgar Publishing.

Short, J. C., Moss, T. W., & Lumpkin, G. T. (2009). Research in social entrepreneurship: Past contributions and future opportunities. Strategic Entrepreneurship Journal, 3(2), 161-194.

Somerville, D. M. (2014). Understanding Social Entrepreneurship: The Relentless Pursuit of Mission in an Ever Changing World, by Kickul, J., & Lyons, TS.

Sonen Capital. (2016). Aligning profit and purpose: A framework for assessing and driving impact in social enterprises. Retrieved from https://www.sonen.com/wp-content/uploads/2016/11/Sonen_Aligning-Profit-and-Purpose_Final.pdf

Spieth, P., Schneider, S., Clauß, T., & Eichenberg, D. (2019). Value drivers of social businesses: A business model perspective. *Long Range Planning*, *52*(3), 427-444.

Staicu, D. (2021). Characteristics of textile and clothing sector social entrepreneurs in the transition to the circular economy. *Industria Textila*, *72*(1), 81-88..

Stephan, U., & Drencheva, A. (2017). The person in social entrepreneurship: A systematic review of research on the social entrepreneurial personality. *The Wiley handbook of entrepreneurship*, 205-229.

Sullivan Mort, G., Weerawardena, J., & Carnegie, K. (2003). Social entrepreneurship: Towards conceptualisation. *International journal of nonprofit and voluntary sector marketing*, *8*(1), 76-88.

Tabassam, A., & Shehzad, A. (2023). The Interaction of Innovation Networks, Frugal Innovations, And Organizational Readiness In The Circular Economy. *resmilitaris*, *13*(2), 3668-3680.

Thyer, B. A. (2015). A Bibliography of Randomized Controlled Experiments in Social Work (1949–2013) Solvitur Ambulando. *Research on Social Work Practice*, *25*(7), 753-793.

UN (United Nations). (2020b). Entrepreneurship for Sustainable Development. Retrieved from https://www.un.org/development/desa/dspd/2020/09/entrepreneurship-for-sustainable-development/

United Nations Industrial Development Organization. (2019). Scaling social innovation through the Sustainable Development Goals. Retrieved from https://www.unido.org/sites/default/files/2019-06/Scaling-Social-Innovation-Through-The-Sustainable-Development-Goals.pdf

Waddock, S., & McIntosh, M. (2009). Beyond corporate responsibility: Implications for management development. *Business and Society Review*, *114*(3), 295-325.

Wilder, E. I., & Walters, W. H. (2021). Using conventional bibliographic databases for social science research: Web of Science and Scopus are not the only options. *Scholarly Assessment Reports*, *3*(1).

Zahra, S. A., Gedajlovic, E., Neubaum, D. O., & Shulman, J. M. (2009). A typology of social entrepreneurs: Motives, search processes and ethical challenges. Journal of Business Venturing, 24(5), 519-532.

Zhang, D. D., & Swanson, L. A. (2014). Linking social entrepreneurship and sustainability. *Journal of Social Entrepreneurship*, *5*(2), 175-191.

Zhang, Y., Xu, H., Jia, R., Yang, H., & Wang, C. (2022). Realizing common prosperity: The action logic of social entrepreneurship community mobilization in rural tourism. *Elem Sci Anth*, *10*(1), 00006.

Zhou, G., Liu, W., Wang, T., Luo, W., & Zhang, L. (2021). Be regulated before be innovative? How environmental regulation makes enterprises technological innovation do better for public health. *Journal of Cleaner Production*, *303*, 126965.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of Convenience Sampling and Purposive Sampling. *American Journal of Theoretical and Applied Statistics*, 5(1), 1-4.

Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. *Administration and Policy in Mental Health and Mental Health Services Research*, 42(5), 533–544.

Field, A. (2013). Discovering statistics using IBM SPSS statistics. 4th ed. London: Sage Publications.

Appendix 1
Questionnaire

Gender

- Male
- Female
- Prefer not to say

Age

- 20-30
- 31-40
- 41-50
- 51-60

Academic Qualification

- Bachelors
- Masters
- Ph.d

How familiar are you with the concept of social entrepreneurship?

very familiar

- 1
- 2
- 3
- 4
- 5

In your opinion, social entrepreneurship plays a significant role in promoting sustainable development.

- Strongly Agree
- Agree
- Neutral

- Disagree
- Strongly disagree

Which of the following do you believe is the key benefit of social entrepreneurship in addressing environmental challenges?

a) Innovative solutions

b) Collaboration with stakeholders

c) Scalability of impact

d) Other

Have you heard of any successful social entrepreneurship initiatives that have positively impacted the environment?

- Yes
- No
- Maybe

How important is it for social entrepreneurs to collaborate with other stakeholders (e.g., governments, businesses, NGOs) to achieve their environmental goals?

1. Very important
2. Important
3. Neutral
4. Not important
5. Not sure

Do you believe social entrepreneurship can effectively contribute to achieving the United Nations' Sustainable Development Goals (SDGs)?

- Yes
- No
- Maybe

In your opinion, which sectors do you believe social entrepreneurship can have a particularly significant impact on environmental sustainability? (Select all that apply)

1. Energy and renewable resources
2. Waste management and recycling
3. Conservation and biodiversity

4. Water and sanitation
5. Agriculture and food systems
6. Other

How important do you think it is for social entrepreneurs to measure and communicate the social and environmental impact of their initiatives?

- Very important
- Important
- Neutral
- Not Important
- Not sure

Are there any specific policy or regulatory changes that you think would facilitate the growth and impact of social entrepreneurship in the environmental sector?

- Yes
- No
- Not sure

Do you believe that social entrepreneurship has the potential to significantly contribute to a more sustainable and environmentally conscious future?

- Yes
- No
- Maybe

When evaluating the success of a social entrepreneurship project in addressing environmental challenges, which factor do you consider most important?

1. Financial sustainability
2. Long-term impact
3. Community engagement
4. Policy influence
5. Other:

How aware are you of the various social entrepreneurship models and approaches that can be used to address environmental challenges?

- Very aware
- Somewhat aware

- Not aware

In your opinion, which of the following is the biggest barrier or challenge faced by social entrepreneurs in promoting sustainable development?

1. Lack of funding
2. Limited access to resources
3. Lack of public awareness and support
4. Regulatory hurdles
5. Other:

Have you personally supported or participated in any social entrepreneurship projects focused on environmental sustainability?

- Yes
- No
- Maybe

What kind of support or resources do you believe social entrepreneurs need to be more effective in addressing environmental challenges? (Select all that apply)

1. Financial investment
2. Mentoring and training programs
3. Access to networks and partnerships
4. Policy advocacy and support
5. Other:

Do you think social entrepreneurs are more effective in driving environmental change compared to traditional non-profit organizations or government initiatives?

- Yes, social entrepreneurs are more effective
- No, traditional non-profit organizations are more effective
- No, government initiatives are more effective
- They are equally effective

How important do you think it is for social entrepreneurs to prioritize both environmental impact and financial sustainability?

- Very important
- Important
- Neutral

- Not important
- Not sure

Have you taken any actions in your daily life to support or promote social entrepreneurship for environmental sustainability?

- Yes, regularly
- Yes, occasionally
- No, but I am interested
- No, I am not interested

In your opinion, what role can governments play in supporting and promoting social entrepreneurship initiatives that address environmental issues?

1. Provide funding and grants
2. Create supportive policies and regulations
3. Offer tax incentives and benefits
4. Facilitate partnerships with businesses and NGOs
5. Other

Are there any specific areas or sectors where you believe social entrepreneurship can have a particularly significant impact on environmental sustainability? (Select all that apply)

1. Climate change mitigation and adaptation
2. Urban sustainability and smart cities
3. Sustainable transportation
4. Environmental education and awareness
5. Circular economy and sustainable production
6. Other