

Stakeholder role in overcoming trade-offs between economic and ecological objectives in eco-entrepreneurship

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Abstract

Although capitalism has, for centuries, largely ignored its environmental impact, in recent years these have come to the fore of academic and policy discourse around the world. This has largely been driven by wide-reaching environmental effects such as global warming, droughts and vital species extinction. These effects have been linked to significant financial losses which fuelled the need to resolve the environmental challenges. Since entrepreneurship is the engine of capitalism, many of these challenges are resultant of entrepreneurial decisions. In seeking solutions to resolving these issues, the world has turned to entrepreneurs once more to find innovative ways of managing these challenges. Eco-entrepreneurship, a form of entrepreneurship that focuses on reducing environmental degradation, has been viewed as a vehicle to resolve these challenges. However, due to the recency of these suppositions, no sufficient studies are focusing on investigating eco-entrepreneurship. Moreover, several studies have shown eco-entrepreneurship to be inherently characterised by trade-offs between their economic and ecological dimensions. This study supposed, supported by other researchers, that for eco-entrepreneurs to thrive, they must balance these trade-offs. Due to its premise of collaboration among different stakeholders, stakeholder theory was used as a lens through which this study was undertaken.

In seeking to provide insights around this question, an explorative phenomenological research approach was used. Non-probability sampling was used along with semi-structured interviews to gather the necessary data.

This study found that the role of stakeholders (stakeholders such as governments, institutions and society) in eco-entrepreneurship is the creation of a market within which eco-entrepreneurs can operate. Through regulations, communication, trust, the establishment of common interests and their incorporation into strategy, it was found that eco-entrepreneurs can balance the ecological and economic goals trade-offs.

Keywords: Eco-entrepreneurship, economic and ecological trade-offs, sustainability management, stakeholder theory

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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“The earth will not continue to offer its harvest, except with faithful stewardship. We cannot say we love the land and then take steps to destroy it for use by future generations.”

– Pope, John Paul II

Chapter 1: Introduction to the research problem

1.1 Introduction

1.1.1 The advent of sustainable development in public discourse

Man made environmental challenges have plagued our planet for decades with minimal positive interventions. Pollution, climate change and biodiversity loss were, for many decades, second thought to the production of goods and services in the modern economy. While economies continued to grow, the environment degraded resulting in effects such as climate change and rising temperatures (UNEP, 2020), see Figure 1. Then in the 1960s, the concept of sustainable development emerged in academia. This is partly owed to a picture taken from space, evoking collective awareness of sustainability issue (Rahdari et al., 2016). Concerns of environmental degradation continued to gain momentum in academic discourse through the 1970s owing to various environmental conferences held during this period (Rahdari et al., 2016).

The issues of sustainable development further gained prominence through the 1980s at United Nations' (UN) policy discussion conferences. Stemming from these conferences was the elaborated definition of sustainable development which included environmental issues combined with economic aspects of

RECENT TEMPERATURE TRENDS (1990-2019)

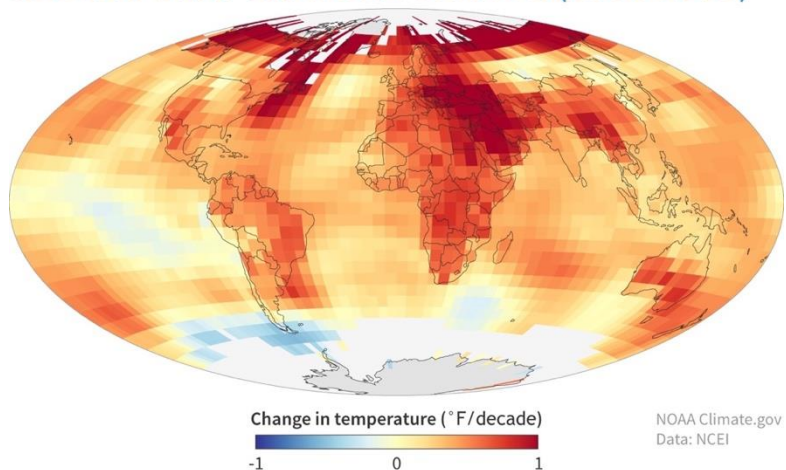


Figure 1: The world temperature changes per decade, the effect of global warming (Lindsey & Dahlman, 2021)

development (Hák et al., 2016). This definition, however, was later viewed as vague and purported to have two contradictory paradigms, those of lasting economic growth and

effective environmental protection. The concept was then further elaborated on and clarified in 1992's Earth Summit (UN, 1992). The concept of sustainable development received another addition to its pillars, the social development pillar. This addition first surfaced in the Johannesburg conference (UN, 2002) and was later endorsed by the Rio +20 conference (Hák et al., 2016). The idea of sustainable development then included the environmental, the social and the economic paradigms, further complicating its understanding and adoption (Hák et al., 2016; Rahdari et al., 2016). Although complicated in its application, this sustainability definition is still used in both academic and business settings, this study included.

1.1.2 The adoption of sustainable practices

Although this concept was then widely communicated and well-articulated, the business world continued to ignore the negative environmental impact caused by its production processes (Rahdari et al., 2016). However, this later changed through the introduction of corporate social responsibility (CSR) (Rahdari et al., 2016). Nevertheless, the action required to overcome the enormous environmental challenges that the world faces is too great for the minimal impact that the CSR activities effect (Rahdari et al., 2016).

In response, the United Nations (UN) set its well-known sustainable development goals (SDGs) to create awareness and promote the development of social and sustainable enterprises (Rahdari et al., 2016). Additionally, governments began introducing regulatory policies that sought to mitigate and prevent further environmental degradation (Holt, 2011). Moreover, issues of the planet's sustainability have continued to receive attention and have become influential in business and academic settings (Dhahri & Omri, 2018). Furthermore, consumers are increasingly becoming conscientious of the environmental impact of the product they consume (Dhahri & Omri, 2018). The Covid-19 pandemic has accelerated this societal environmental awareness and discernment of products to new highs (Lehmann et al., 2021; Severo et al., 2021), further adding voice to the call for change.

However, these efforts are undermined by existing investments of large firms into processes that do not necessarily have positive environmental impact (Hörisch, 2015). As evidenced in Figure 2 the world's carbon dioxide emissions have continued to increase since the 1850s and are still projected to increase past the year 2040. The lack of meaningful change prompted scholars and researchers to turn into entrepreneurship as a potential solution to these problems (Dhahri & Omri, 2018).

This entrepreneurial action is expected to come from eco-entrepreneurship which is, the provision of entrepreneurial solutions that seek to resolve ecological challenges using the exploitative nature of entrepreneurship (Antolin-Lopez et al., 2019; Dhahri & Omri, 2018; York et al., 2016). Literature studying this phenomenon uses eco-entrepreneurship interchangeably with environmental entrepreneurship, green entrepreneurship and sustainable entrepreneurship to refer to the ecological impact of economic and entrepreneurial activity. However, this study refers to this form of entrepreneurship as eco-entrepreneurship.

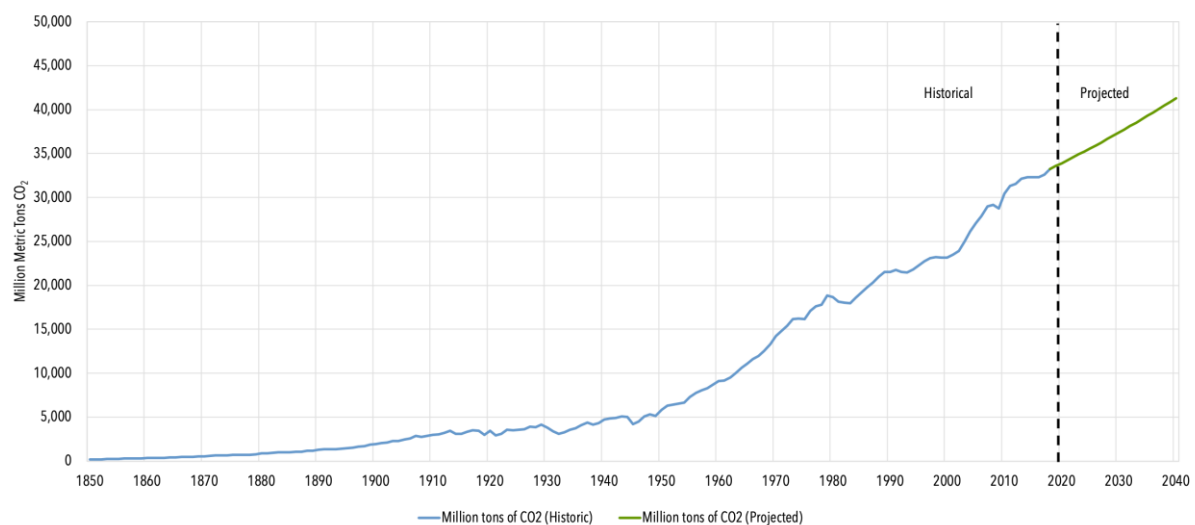


Figure 2: World's carbon dioxide emission from 1850 projected past 2020 to 2040 (Center for Climate and Energy Solutions, n.d.)

1.1.3 Entrepreneurs as drivers for sustainable change

The question of how these sustainability issues, particularly relevant to this study, how these ecological challenges were to be resolved speedily and sustainably, remained. It then emerged that, since entrepreneurs were the drivers for the establishment of these large corporations that led to the environmental market failures, they could resolve the ecological challenges the world still faces (Dhahri & Omri, 2018; York, O'Neil & Sarasvathy, 2016). Furthermore, issues of the planet's sustainability have continued to receive attention and have become influential in business and academic settings (Dhahri & Omri, 2018). Consumers are also increasingly becoming conscientious of the processes employed by businesses in their production processes that produce the products they consume (Dhahri & Omri, 2018).

Consequently, the notion of entrepreneurial action as a solution to the world ecological

challenges has progressively been recognised as a vehicle to deliver the required change (Dhahri & Omri, 2018; Gast et al., 2017; York et al., 2016). Therefore, entrepreneurial action must effect change in society's production processes and provide solutions for the reversal of the degradation of the ecological environment.

1.1.4 The advent of eco-entrepreneurship

The required entrepreneurial action was not the traditional entrepreneurial action whereby, entrepreneurs seek opportunities through the exploitation of problems for future economic benefits, but rather, entrepreneurial action that seeks to resolve ecological issues while creating economic value for its shareholders (Hörisch, 2015). This entrepreneurial action is yet to gain consensus in its definitions (Dhahri & Omri, 2018; Hörisch, 2015; York et al., 2016). However, the concept is well understood as, the use of entrepreneurial action to provide economic benefits while resolving some ecological problems (Dhahri & Omri, 2018; Hörisch, 2015). In this study, eco-entrepreneurship refers to entrepreneurial actors who resolve ecological problems while providing economic value for their shareholders.

Eco-entrepreneurship is a nascent field of study with many associated concepts and theories under development, with no consensus on definitions and meanings (Gast et al., 2017), it is now seen as a vehicle to resolving the many environmental challenges that the world faces (Dhahri & Omri, 2018; Gast et al., 2017; Hörisch, 2015). Although this area of study has received increasing attention both academically and in the business environment, little is known about how eco-entrepreneurs balance the trade-offs between their economic and ecological goals. (Antolin-Lopez, Martinez-del-Rio & Cespedes-Lorente, 2019; Dhahri & Omri, 2018; Gast, Gundolf & Cesinger, 2017). The lack of this knowledge in this field of study has impeded progress in the establishment of eco enterprises (Dhahri & Omri, 2018). Particularly not in the required scale and pace needed to address these ecological challenges.

Furthermore, the ecological challenges referenced in this research are considered as grand challenges with highly complex dimensions, uncertainty, their evaluative nature, multiple and diverse role-players (Doh et al., 2019; Hamann et al., 2020). Solutions to these challenges, therefore, will require the collaboration of multiple role-players, society, individual organisations, governments, institutions and consumers (Hörisch et al., 2014). These multiple role players would either be influenced or influence the organisations or entrepreneurs involved in the resolution of these challenges. Therefore, these role-players can be considered as stakeholders from the perspective of the organisation or entrepreneur (Freeman, 1984).

The stakeholders play an important role in the resolution of these ecological challenges (Hamann et al., 2020). Therefore, this research studies their role in the overcoming of trade-offs in the ecological and economic goals of eco-entrepreneurs. Contributing to the existing body of academic literature as well as providing knowledge to eco-entrepreneurial start-ups and innovations, indirectly fast-tracking the resolution of the ecological challenges.

1.1.5 Eco-entrepreneurship and conventional entrepreneurship

The difference between entrepreneurship and eco-entrepreneurship is that, while entrepreneurs focus on creating, discovering and exploiting value-adding opportunities (Fisher, 2012; Gast, Gundolf & Cesinger, 2017), eco-entrepreneurs pursue opportunities that seek to resolve or lessen ecological challenges (Antolin-Lopez et al., 2019; Dhahri & Omri, 2018; York et al., 2016).

Furthermore, It has been posited that, although entrepreneurship has contributed to the advancement of society through economic growth and development, it is also associated with market failures relating to ecological degradation (Gast et al., 2017). Traditional entrepreneurship and eco-entrepreneurship are similar in that they both need to provide value creation for society. Eco-entrepreneurship however, must satisfy the condition related to environmental value creation as a core value in the entrepreneurship venture (Antolin-Lopez et al., 2019; Dhahri & Omri, 2018; Gast et al., 2017). It follows, therefore, that eco-entrepreneurs need to actively meet both their economic and ecological values.

Eco-entrepreneurs, like all entrepreneurs, have the ability or disposition to identify, recognise and exploit entrepreneurial opportunities (Beveridge & Guy, 2005). However, these entrepreneurs have the conviction to develop and grow their businesses in an ecologically friendly manner that prevents or reduces ecological damage (Beveridge & Guy, 2005; Dean & McMullen, 2007; Schick et al., 2002; York et al., 2016). Therefore, eco-entrepreneurs are said to have both dispositions, the conventional entrepreneurial disposition as well as the environmental conviction. These are seen as competing interests and lead to paradoxical decision making. On the one hand, the eco-entrepreneur must prioritise their ecological objectives while ensuring the financial sustainability of their business (Holt, 2011; Jolink & Niesten, 2015; York et al., 2016).

Although it is desirable for the ecological and economic goals to align, these are not always aligned due to existing market structures (York et al., 2016). Eco-entrepreneurs find themselves having to overcome or balance the inherent tensions between the

economic and environmental logics, which characterise the eco-entrepreneurship phenomenon (Antolin-Lopez et al., 2019; York et al., 2016). However, this action of balancing these trade-offs is currently unknown and requires further study (Antolin-Lopez, Martinez-del-Rio & Cespedes-Lorente, 2019; Dhahri & Omri, 2018; Gast, Gundolf & Cesinger, 2017).

Another important aspect of eco-entrepreneurship is that ecological issues in most cases involve multiple stakeholders as their impact is often wide-reaching (Antolin-Lopez et al., 2019; Ferraro et al., 2015; Hörisch et al., 2014). As the world's acceptable ecological risk reduces, conventional entrepreneurs find themselves faced with the phenomenon of balancing ecological and economic objectives. This is evident in Japan's maglev project. This is a high-speed rail project currently underway in Japan (Ogawa, 2020). The project was delayed due to environmental concerns around one of its connection nodes. The concerns related to insufficient data provided on whether the rail would disturb a river flow or not (Ogawa, 2020). The stakeholders representing the impacted community refused to give a go-ahead to the project and demanded a detailed study as proof of expected impact. This demonstrated the influence stakeholders have on businesses, even ecological stakeholders.

1.2 The research problem

The influence of stakeholders, whether economic or ecological is apparent in all organisations. Stakeholder theory has been used in several sustainability studies (Frynas & Yamahaki, 2016; Montiel & Delgado-Ceballos, 2014), with eco-entrepreneurship as a sub-field to these studies. These studies focused largely on the identification of stakeholders and their ecological expectations, as well as studies focusing on the effects of stakeholder management on the achievement of entrepreneurial goals such as revenue growth or other related aspects (e.g., capturing knowledge) (Hörisch et al., 2014). This research, however, focusses on the role of stakeholders in managing the economic and ecological trade-offs in eco-entrepreneurship.

A core element of stakeholder theory, relating to the generation of mutual interest of different stakeholders, rather than focusing on trade-offs is useful in the study of eco-entrepreneurship (Hörisch et al., 2014). This view posits that top management or the entrepreneur identifies relevant stakeholders by business activities and seeks to satisfy their interests without trade-offs. This theory is therefore well suited to understanding how entrepreneurs overcome the economic and ecological, often paradoxical, goals of their businesses.

The need for value creation for sustaining an entrepreneurial venture as well as the need for environmental value creation creates a dilemma of the duality of goals for eco-entrepreneurs. According to Antolin-Lopez et al. (2019); Gast, Gundolf & Cesinger (2017); O'Neil & Ucbasaran (2016), research on this aspect is lacking and must be undertaken to further understand this form of entrepreneurship. Therefore, to understand how eco-entrepreneurs overcome the trade-offs between their economic and ecological goals, this research seeks to meet the following objectives:

- ▶ Understand the role of stakeholders in the development of economic and ecological objectives in eco-entrepreneurship.
- ▶ Understand how eco-entrepreneurship ventures incorporate conflicting stakeholder interests into their decision-making process.
- ▶ Establish the particular elements the role of stakeholders play to positively contribute to the successful balancing of economic and ecological trade-offs in eco-entrepreneurship.

1.3 Significance of the study

1.3.1 Academic significance

The study of eco-entrepreneurship is a novice area of research that still requires substantial research contributions to be considered as a fully developed area of research (Antolin-Lopez et al., 2019; Gast et al., 2017). However, this field has been experiencing a growing interest from scholars, although consensus on the definition of terms is yet to be achieved (Gast et al., 2017). Moreover, despite the recent scholarly interest in eco-entrepreneurship, little is known about how eco-entrepreneurs overcome the competing economic and ecological goals that underpin these ecological ventures (Antolin-Lopez et al., 2019; Gast et al., 2017; O'Neil & Ucbasaran, 2016). Furthermore, this research will contribute to the body of knowledge in the sustainability research field as other eco-entrepreneurship research has contributed (Lenox & York, 2011). Lastly, this research will contribute to the area of entrepreneurship by adding new knowledge around the balancing on paradoxical goals where the goals are inherently embedded within the entrepreneurship venture.

Demirel et al. (2019) argued that eco-entrepreneurship is often perceived to provide new advantages to developed economies by improving their competitiveness. Its impact on developing economies, although expected to be significantly positive, has not been studied (Demirel et al., 2019). This study will be conducted on eco-entrepreneurs who

currently operate within South Africa, a developing nation and will therefore contribute to the study field with a perspective from a developing nation.

1.3.2 Business significance

Entrepreneurial action is posited to be a vehicle that can be used to solve ecological challenges. However, the field of eco-entrepreneurship still lacks developed concepts and theories for business use. Eco-entrepreneurs by the very nature of their businesses need to fulfil economic and ecological goals which often requires the prioritisation of one over the other which creates uncertainty related to these types of businesses (Dhahri & Omri, 2018; York, O'Neil & Sarasvathy, 2016).

This uncertainty discourages prospecting entrepreneurs from starting eco ventures. It has been shown that entrepreneurial action is less acted upon when great uncertainty exists (Brinckmann, Grichnik & Kapsa, 2010; Grégoire & Cherchem, 2020). Therefore, the elimination of this uncertainty will promote eco-entrepreneurship and bring the world a step closer to managing the enumerate ecological challenges. This study seeks to close this research gap, thereby contributing to the reduction of fears relating to the balancing of economic and ecological objectives in eco-entrepreneurship.

Furthermore, the increasing awareness about ecological issues has become critical to talent, consumers, investors and regulators (Deloitte, 2017). Investment decisions are increasingly inclusive of factors other than financial factors in their making, with ecological consideration coming to the fore. Therefore, eco-entrepreneurs equipped with the knowledge this research seeks to surface will have a greater chance at success as they are likely to attract better investment opportunities for growing their entrepreneurial ventures.

1.4 Report structure

This report firstly introduces the research problem by providing background information, explaining the relevance of entrepreneurship and the significance of this study. The second chapter explores the relevant literature to the study and concludes by providing the main themes that emerged from the literature review process. Chapter 3 then presents the main research questions that arose from defining the research problem as well as the literature reviewed. After chapter 3, the research methodology chapter is presented to provide the process followed in seeking answers to these research questions. Chapter 5 then presents the results yielded through the data-gathering phase. Chapter 6 then discusses the results in relation to the literature reviewed in chapter 2 with conclusions

drawn. In chapter 7, the conclusion to the study is presented together with study limitations and recommendations for future research.

Chapter 2: Literature Review

2.1 Introduction to literature review

This literature review chapter consists of two sections. The first section discusses, in detail, existing literature relating to eco-entrepreneurship. In this section, the characteristics of eco-entrepreneurship have been discussed, including the many existing definitions of eco-entrepreneurship, the expected types of eco-entrepreneurs and their experiences. Moreover, existing research seeking to establish answers to the paradoxical nature of their businesses and opportunities for improvement have been considered.

This chapter then considers the relevant theories to the study and provides a logical argument to the selection of stakeholder theory as the lens through which this study is developed. Stakeholder theory is then explored, from its early conception, its development, its past application to research studies and its main constructs. This chapter then provides an argument linking stakeholder theory to the subject of eco-entrepreneurship and highlights its relevance in the study of paradoxical decision making. Then to conclude, this literature review identifies the main themes informing the development of the research questions.

2.2 Introduction to eco-entrepreneurship

Academic literature indicating issues of environmental degradation due to existing production processes have been published for decades (Galkina & Hultman, 2016). The literature progressed from the view of establishing the issue to a critical evaluation of the institutional originated market instruments established to mitigate against these issues (Galkina & Hultman, 2016). Eco-entrepreneurship and corporate environmental responsibility were viewed as a possible effective alternative to mitigating these issues (Galkina & Hultman, 2016; Larson, 2000; Pastakia, 2002; Schaltegger, 2002). Although these alternatives were introduced in literature in the late 1990s to early 2000s, they received very little attention due to the lack of related implementation knowledge as well as lack of urgency related to ecological issues (Galkina & Hultman, 2016; Gast et al., 2017).

However, ecological problems have in recent years become one of the most talked-about subjects and are increasingly receiving more research interest (Antolin-Lopez et al., 2019; Dhahri & Omri, 2018; Gast et al., 2017). Several initiatives by institutions, as early as the 2000s, such as the UN, with the establishment of its SGDs, have sought to drive the move

toward cleaner production and efforts to reverse the current challenges of ecological degradation (Antolin-Lopez et al., 2019; Rahdari et al., 2016). These measures have been successful in raising awareness and improving consumer environmental consciousness (Dhahri & Omri, 2018). Improvements in the environmental behaviour and changes in production methods of big corporations can arguably be attributed to pressures from the increasingly environmentally conscious consumers.

Furthermore, governments created environmental policies that sought to reduce further ecological degradation (Pastakia, 2002). These policies sought to mitigate against environmental impact through compliance with laws such as stricter regulation on air polluting processes and restrictions on hazardous waste disposal (Pastakia, 2002; Potluri & Phani, 2020). However, some scholars indicate that these measures have not had a positive impact on promoting the growth of eco-friendly initiatives or business ventures (Guo, Qu & Tseng, 2017; Potluri & Phani, 2020). Others indicate the important role that government policies play in encouraging eco-friendly behaviours and the establishment of eco-friendly ventures (Hörisch, Kollat & Brieger, 2017), although these are said to be more effective in the form of contract awards or incentives (Gunawan, van Riel & Essers, 2021).

Therefore, the role of government policy interventions cannot be underestimated in the pursuit of an eco-friendly production ecosystem. Whether this is in the form of regulatory command and control instruments or in the form of incentives-based regulatory frameworks, these policies have some positive effects, although their outcomes may need contextualisation. The number of ventures established to tackle the various ecological challenges has continued to grow (Dudin et al., 2019; Galkina & Hultman, 2016; Santini, 2017). Thus, the measures employed to encourage the establishment are somewhat effective.

Lastly, this discussion makes it clear that many stakeholders play a role in the establishment phase, operating phase and sustainability aspects of ecological interventions. To note a few, introduced above, consumers, governments and international institutions. These stakeholders will likely exert a positive or negative influence on the establishment and operation of businesses that seek to address ecological challenges.

2.2.1 Defining eco-entrepreneurship

2.2.1.1 Current and past definitions

Eco-entrepreneurship research has been gaining scholarly interest for more than two

decades with numerous published studies. However, researchers in the field have not agreed on a single scientific definition of eco-entrepreneurship (Antolin-Lopez et al., 2019; Demirel et al., 2019; Galkina & Hultman, 2016; Gast et al., 2017). Although the lack of unified definitions for eco-entrepreneurship has enriched this field of research and promoted debate among scholars with wide-ranging perspectives, the lack of conceptualisation of its main constructs creates confusion and has stunted its growth as a research field (Antolin-Lopez et al., 2019; Gast et al., 2017). *Table 1* provides a summary of the definitions found in literature with associated attributes or themes and authors.

The earlier conceptualisation of eco-entrepreneurship was idealistic with a large focus on the ecological aspects of the phenomenon. Eco-entrepreneurs were viewed as saviours and change agents to environmental market failures (Anderson, 1998; Hendrickson & Tuttle, 1997; Pastakia, 1998). This conceptualisation only considered eco-entrepreneurs as those driven by the need to change the ecological challenges, almost neglecting the need to create financial sustainability. Hostager et al. (1998) and Lober (1998) recognised the need to remain entrepreneurial while tackling these ecological challenges, for, without financial sustainability, there can be no lasting entrepreneurial change.

This conceptualisation became more prominent in the early 2000s until the end of that decade. The conceptualisation of co-entrepreneurship focused on two perspectives. Firstly, the conceptualisation supposed that eco-entrepreneurs remain agents of change, challenging the status quo of existing market structures by introducing products and services that have been designed with ecological considerations (Beveridge & Guy, 2005; Isaak, 2002; Schaltegger, 2002; Schick et al., 2002). Secondly, the conceptualisations acknowledged that, although eco-entrepreneurs need to be ecologically focused, they also need to manage and operate economically sustainable enterprises (Dean & McMullen, 2007; Dixon & Clifford, 2007; D. Gibbs, 2009; Pacheco et al., 2010).

The conceptualisation of eco-entrepreneurship advanced from what was a socialist perspective (Anderson, 1998; Hendrickson & Tuttle, 1997; Pastakia, 1998), where a consideration of the phenomenon was simply ecologically focused, devoid of economics, to a more integrated perspective that acknowledges the need for both the economic and ecological logics to be perceived. The later conceptualisation introduced the opportunistic and exploitative nature of entrepreneurship in an attempt to incorporate the economic logic (Dean & McMullen, 2007; Schaltegger, 2002; Schick et al., 2002). Amongst these conceptualisations, Dixon and Clifford (2007) proposed a definition that introduced the need for balancing the economic and ecological logics in eco-entrepreneurship as an

inherent characteristic of the phenomenon.

Table 1: Widely used definitions of eco-entrepreneurship and related themes

Definition	Attributes/Themes
Definitions of the 1990s	
“Environmental entrepreneurship is entrepreneurial activity that benefits the environment” (Hendrickson & Tuttle, 1997, p. 363)	Environmental benefits
“[Environmental entrepreneurs] are seen as critical change agents needed to move toward a sustainable society” (Anderson, 1998, p. 135)	Change agents for sustainability
“Environmental intrapreneurship, defined as individuals and groups working within the corporation to: (1) identify ideas for new products or services that reflect a concern for the environment (e.g., recycled materials, reduced pollution, efficient use of resources); and (2) turn these ideas into profitable products and services” (Hostager et al., 1998, pp. 11 - 12)	Ecological and economic value
“Ecopreneurship is the creation of new products, services or organizations to meet environmental market opportunities” (Lober, 1998, p. 26)	Exploit environmental market opportunities
“[Ecopreneurs] are individuals or institutions that attempt to popularize eco-friendly ideas and innovations either through the market or non-market routes may be referred to as ecopreneurs” (Pastakia, 1998, p. 157)	Eco market creation
2000 – 2010 definitions	
“An ideal ecopreneur is one who creates businesses in order to radically transform the economic sector in which he or she operates ... and it is a form of business behavior committed to sustainability” (Isaak, 2002, p. 81)	Transformation agents toward sustainability
“Ecopreneurship can thus be described as an innovative, market-oriented and personality-driven form of value creation through environmental innovations and products exceeding the start-up phase of a company” (Schaltegger, 2002, p. 48)	Economic and ecologically orientation
“[Ecologically oriented start-ups] are those who look for opportunities in their respective markets to develop goods and services for environmentally aware customers” (Schick et al., 2002, p. 60)	Exploit economic and ecological opportunities
“[Ecopreneurs] are individuals and organizations that, in various forms, combine the drive, imagination and impact of the conventional entrepreneur with a concern for the environment usually associated with environmental activists” (Beveridge & Guy, 2005, p. 667)	Economic and ecologically orientation

“Environmental entrepreneurship is the process of discovering, evaluating and exploiting economic opportunities that are present in environmentally relevant market failures” (Dean & McMullen, 2007, p. 58)	Exploit economic and ecological opportunities
“Ecopreneur is an individual who balances triple drivers within the venture: environmental, social and economic” (Dixon & Clifford, 2007, p. 327)	Balancing ecological, social and economic logics
“Ecopreneurs are those entrepreneurs who combine environmental awareness with their business activities in a drive to shift the basis of economic development toward more environmentally friendly basis” (Gibbs, 2009, p. 55)	Economic and ecologically orientation
“Sustainable/environmental entrepreneurship is the discovery, creation, evaluation, and exploitation of opportunities to create future goods and services that is consistent with sustainable development goals”(Pacheco et al., 2010, p. 471)	Exploit economic and align to ecological goals
Prevailing definitions post 2010	
“[Environmental entrepreneurs] are actors and companies making environmental progress to their core business. They generate new products, services, techniques, and organizational modes that substantially reduce environmental impacts and increase the quality of life” (Schaltegger & Wagner, 2011, p. 223)	Market dependant and ecologically oriented
“Ecopreneurial companies are values-based businesses that seek to make a positive difference to society through their business” (Kearins & Collins, 2012, p. 72)	Transformational and economic oriented
“An ecopreneur is an individual who claims to be motivated by the creation of social and environmental value over economic value when founding a business” (M. Phillips, 2013)	Prioritisation of ecological over economic goals
“[Ecopreneurs] are entrepreneurs profit-oriented and environmentally concerned at the same time” (Jolink & Niesten, 2015, p. 388)	Economic oriented and ecologically concerned
“Environmental entrepreneurship] is entrepreneurial activity which seeks to promote environmental welfare generally and address various sustainability problems specially, while being financially sustainable” (O’Neil & Ucbasaran, 2016, p. 136)	Economic and ecological logics
“[Environmental entrepreneurship] is the use of both commercial and ecological logics to address environmental degradation through the creation of financially profitable organizations, products, services, and markets” (York et al., 2016, p. 695)	Economic and ecological logics
“Green entrepreneurship is understood as profitable and innovative entrepreneurial activity, which seeks to positively use its influence on society, economy and the environment”	Economic and ecological logics

(Melay et al., 2017, p. 2)	
“Green entrepreneurship: a predisposition to pursue potential opportunities that produce both economic and ecological benefits through initiating green activities” (Jiang et al., 2018, p. 1312)	Economic and ecological logics
“Profit oriented and environmentally concerned at the same time” (Ljungkvist & Andersén, 2021, p. 1375) adopted from Jolink and Niesten (2015, p. 388)	Economic and ecological logics

The current eco-entrepreneurship conceptualisation stems from the conceptualisations of the early and late 2000s. Although current literature uses different terms when referring to eco-entrepreneurship (e.g. environmental entrepreneurship (O’Neil & Ucbasaran, 2016; Schaltegger & Wagner, 2011; York et al., 2016), ecopreneurship (Jolink & Niesten, 2015; Kearins & Collins, 2012; Ljungkvist & Andersén, 2021; M. Phillips, 2013), and green entrepreneurship (Jiang et al., 2018; Melay et al., 2017)), consensus on that the phenomenon comprises both the economic and ecological logics has been reached. Therefore, a robust definition of eco-entrepreneurship is that which considers these competing logics within the context of sustainability.

2.2.1.2 Eco-entrepreneurship relationship with the sustainability research field

Sustainability involves the implementation of business practices that seek to create value within the three pillars (ecology, society, economy) that are concerned with sustainability (Gast et al., 2017). Considerations of the one pillar, the ecological pillar, has seen much interest due to the knowledge that natural resources are finite. There have been further calls for defining sustainability with an emphasis on the ecological pillar (Santillo et al., 2007). By considering available and useful ecological resources through goals that minimise the production and use of harmful substances, lessen environmental pollution and minimise waste production, future economic and social needs can be met (Gast et al., 2017).

Although environmental market failure has been at the centre of sustainability research, the sustainability study field consists of other study areas, notably social entrepreneurship and sustainable entrepreneurship (Schaltegger & Wagner, 2011). Contrary to eco-entrepreneurship, social entrepreneurship is concerned with achieving societal goals and securing its funding (e.g. non-profit organisations) (Schaltegger & Wagner, 2011).

The above discussion demonstrates the link between the study of eco-entrepreneurship and the sustainability field of study. Therefore, one cannot study eco-entrepreneurship

without referencing sustainability studies, with the reverse being false (Parrish, 2010; Schaltegger, 2002). Sustainability literature that relates to eco-entrepreneurship will thus be used in this study to investigate the topic under study. This study carefully integrated sustainability literature to ensure that the study domain remains entrepreneurial.

2.2.1.3 Economic and ecological logics in eco-entrepreneurship

The ecological logic is concerned with developing solutions that seek to resolve ecological challenges (York et al., 2016). This logic has been presented with differing underlying constructs, Jolink and Niesten (2013) refer to environmental concern which implies a deep feeling of worry towards the environment, Gibbs (2009) suggested environmental awareness which implies action driven by perceived negative ecological externalities, Kearins and Collins (2012) considered this logic as strong green values which are associated with deep learned behaviour, Dean and McMullen (2007) suggested a definition by describing the congruence with the logic as seizing environmental market opportunities which imply exploitative behaviour, finally, Isaak (1998) intimated the link as being ecologically oriented. Nearly all definitions of eco-entrepreneurship reference the link with ecological goals as one of the characteristics of eco-entrepreneurship.

The second characteristic of eco-entrepreneurship is focused on economic goals. Much like the ecological logic, this logic is presented with differing underlying constructs. Hostager et al. (1998), suggested that eco-entrepreneurship results in profitable products or services, largely focusing on the outcomes of eco-entrepreneurship. Schaltegger (2002) proposed in their definitions that eco-entrepreneurs are a market-oriented form of value creation, suggesting an extrinsic based motivation. The suggestion that eco-entrepreneurs simply meet economic opportunities was made by Dean and McMullen (2007), a somewhat oversimplified description of the phenomenon. O'Neil and Ucbasaran (2016) further described eco-entrepreneurs as those seeking financial sustainability. Contemporary descriptions of eco-entrepreneurship have given focus to both ecological and economic goals as characteristics of the phenomenon.

As demonstrated above, eco-entrepreneurship is driven by both ecological and economic goals. Some scholars suggest that in eco-entrepreneurship ecological goals may have greater consideration than economic goals when making business decisions (Hartman & Stafford, 1998; M. Phillips, 2013; York et al., 2016). These scholars are supported by those who have explicitly indicated that in eco-entrepreneurship economic and ecological trade-offs characterise the phenomenon (Allen & Malin, 2008; Antolin-Lopez et al., 2019; Hockerts & Wüstenhagen, 2010; O'Neill & Gibbs, 2016). Therefore, eco-entrepreneurs

need to balance these trade-offs in their businesses if they are to create lasting financial and ecological success.

2.2.1.4 Conclusion to definition

The lack of an agreement on the eco-entrepreneurship phenomenon limits the establishment of an internal identity or distinctiveness of the field (Antolin-Lopez et al., 2019; Demirel et al., 2019; Galkina & Hultman, 2016; Gast et al., 2017). Additionally, this makes it difficult to uncover cause and effect relationships between eco-entrepreneurship and other constructs due to the lack of consensus on the field's theoretical constructs (Antolin-Lopez et al., 2019; Galkina & Hultman, 2016; Gast et al., 2017). Furthermore, operationalisation of constructs is difficult, the unclear or shifting definitions of eco-entrepreneurship lead to measures that often only represent the studied constructs partially or contaminates them with unrelated elements (Antolin-Lopez et al., 2019; Gast et al., 2017). Finally, the lack of consensus on conceptualisation reduces the ideal impact eco-entrepreneurship could make (Antolin-Lopez et al., 2019). It is therefore imperative that this research provide and chose the most relevant definition relating to the study so that constructs or theories that arise are directly linked to a particular definition of eco-entrepreneurship.

Although these definition challenges exist, progress on consensus on the underlying logic has been made. It is widely agreed by many scholars that eco-entrepreneurship comprises of the economic and ecological goals as drivers to the phenomenon (O'Neil & Ucbasaran, 2016; Schaltegger & Wagner, 2011; York et al., 2016). Due to their interconnectedness of the logics, a change in intensity of either of the components will result in a change in the other component. Therefore, this research uses the definition provided by York et al. (2016) “[*Environmental entrepreneurship*] is the use of both commercial and ecological logics to address environmental degradation through the creation of financially profitable organizations, products, services, and markets” (p. 695). The definition is contemporary, includes both the ecological and economic logics, and is explicit on how the entrepreneurial action integrates into ecological protection.

2.2.2 Typologies of eco-entrepreneurship

To understand the differences between eco-entrepreneurs from traditional entrepreneurs, some researchers have sought to explain eco-entrepreneur behaviour through categorisation into typologies (D. Gibbs, 2009; Holt, 2011). According to Isaak (2002), some entrepreneurs establish a conventional business and later change the focus to an

eco-entrepreneurial one to gain advantages in the market. This type of eco-entrepreneur changes their business to include an ecological dimension due to market conditions. Although the venture associated with this typology of eco-entrepreneurship would have started with only the economic dimension as a business focus, the later focus on an additional dimension of ecological concern introduces the paradoxical goals challenge inherent in eco-entrepreneurship.

The second type of eco-entrepreneurship establishes a venture with environmental values and goals already decided (Isaak, 2002). Additionally, this typology actively seeks to transform the value creation of industry into sustainable value creation (Isaak, 2002). Furthermore, Galkina & Hultman (2016) supported by Antolin-Lopez et al. (2019) argued that these typologies indicate that, when trying to understand eco-entrepreneurship, personal values, motivations, and ethical norms need to be considered. Although intrinsic factors are important for ecological goals, eco-entrepreneurs also need to create long-lasting economic success. The greater emphasis on ecological protection may lead to organisations that perform poorly in the economic dimension of eco-entrepreneurship. Thus, although ecologically inclined, these eco-entrepreneurs need to balance the economic and ecological dimensions for the sustainability of their businesses.

Further, Walley and Taylor (2002) also presented eco-entrepreneurship typologies which indicated that eco-entrepreneurs can be characterised by full environmental orientation with little structural influence which is closely associated with Isaak (2002)'s second eco-entrepreneurial typology. Walley and Taylor (2002) further discuss the typology of eco-entrepreneurship where the entrepreneur embraces transformative and environmental orientation. Lastly, they further identified another typology where structural drivers such as legislation drive eco-entrepreneurship ventures. These typologies align closely with the earlier definitions of eco-entrepreneurship (Anderson, 1998; Hendrickson & Tuttle, 1997; Pastakia, 1998) which stress the ecological dimension of eco-entrepreneurship. Much like the definitions of eco-entrepreneurs, eco-entrepreneurial typologies that include only the ecological dimension of eco-entrepreneurs may be outdated and irrelevant in the modern economy.

Although these typologies have been criticised for lacking dynamism (Galkina & Hultman, 2016), they help differentiate this study field without decoupling it from its parent study fields of entrepreneurship and environmental studies. The typologies further help in identifying the direction of the investigation on how eco-entrepreneurs overcome the duality of economic and environmental value creation. The eco-entrepreneurship

typologies help in identifying those eco-entrepreneurs who inherently score lower on one of the eco-entrepreneurship dimensions and may not be actively seeking to make a positive environmental impact but use incidental positive environmental impact to drive their profitability.

Some eco-entrepreneurial typologies align with the definition of eco-entrepreneurship, with both the economic and ecological dimensions strongly related. Eco-entrepreneurial typologies focus on the entrepreneurs' motivations, whether solely ecological or financial or both. This furthers the arguments that eco-entrepreneurship has the ecological and economic dimensions with associated respective goals for the eco-entrepreneur, whether intrinsically motivated or based on external motivators. These typologies point to the importance of a strong ethical and normative orientation, the essence of eco-entrepreneurship (Galkina, 2021).

2.2.3 Eco-entrepreneurial orientation

Eco-entrepreneurs have a sustainability orientation, the need to challenge existing environmental market failures through sustainable innovation to create change and transformation (Pastakia, 1998; Schaltegger & Wagner, 2011). Like other entrepreneurs, the eco-entrepreneur has the disposition to recognise and exploit market opportunities (Dean & McMullen, 2007; Jiang et al., 2018). It follows then that, eco-entrepreneurs possess both sustainability orientation as well entrepreneurial orientation (DiVito & Bohnsack, 2017). Therefore, the combination of these orientations presents a dichotomy of values that are not easily reconciled (York & Venkataraman, 2010).

DiVito and Bohnsack (2017) found that entrepreneurial orientation trade-offs occur when competing ecological and economic decisions are made. Their study, although limited to the fashion industry, was based on case studies and largely related to supplier management. The study indicated that eco-entrepreneurial ventures are proactive and risk-taking. This characteristic may develop in these entrepreneurs due to the lack of information in the field of study as well as the market conditions. The implications are that left to their own devices, eco-entrepreneurs would likely make their decisions based on their orientation (DiVito & Bohnsack, 2017). Their study found that this is prevented by the involvement of other stakeholders in the decision-making process. However, this study did not investigate how these stakeholders help sustainable entrepreneurs in overcoming their trade-offs in economic and ecological goals, further supporting the need for the current study.

2.3 Theory evaluation

This theme discusses theories that are often used in sustainability studies to further support the relevance of the theory used as theoretical lens in this study. The evaluation of these theories surfaced insights as to which theory might be appropriate for this study as demonstrated in the ensuing sub-sections.

2.3.1 Motivation theory in eco-entrepreneurship

The perception of long payback periods, low scalability, high political and technology risks associated with eco-entrepreneurship ventures limits access to finance (Demirel et al., 2019; Migendt et al., 2017; Mrkajic et al., 2019). Despite all these challenges, eco-entrepreneurship has continued to receive increasing attention with growing research (Antolin-Lopez et al., 2019; Dhahri & Omri, 2018), confirming that eco-entrepreneurs are motivated by other factors additional to economic-related benefits.

Motivation determines the actions of individuals and drives those individuals to survive or succeed and avoid failure (Carsrud & Brännback, 2011). Eco-entrepreneurship can be linked to internal stimuli for entrepreneurial action, ecological issues, as well as financial gain. The drive related to solving ecological issues can be classified in organisational behaviour as intrinsic motivation while the economic drive is classified as extrinsic motivation (DiVito & Bohnsack, 2017; Gunawan et al., 2021). To successfully manage an eco-entrepreneurial venture, eco-entrepreneurs therefore, need to balance their intrinsic motivations and extrinsic motivations. To address the subject research question of how eco-entrepreneurs overcome trade-offs between their economic and ecological goals, their intrinsic and extrinsic motivations need to be understood. However, this understanding may not be sufficient, as this theory assumes that eco-entrepreneurs are independent agents attempting to address a grand challenge. As suggested by Doh et al. (2019), grand challenges are complex and require multiple parties to resolve. Therefore, this theory does not suit the current study purpose although important in the understanding of other aspects relating to eco-entrepreneurship.

2.3.2 Institutional theory in eco-entrepreneurship

Meek, Pacheco and York (2010) integrated theory from sociology, institutional theory, and entrepreneurship theory, and argued that, in the context of eco-entrepreneurship, both the decentralised, that is, socially determined, as well as centralised, that is, the government designed institutions influence eco-entrepreneurial activity. Ball and Kittler (2019) as well as Potluri and Phani (2020) also found that institutional involvement, especially in the

creation of market demand for environmental products or services, is critical in promoting both new eco-entrepreneurship ventures as well creating an environment where existing ones can thrive. Potluri and Phani (2020) further stressed the role of eco-entrepreneurial oriented policy framework in developing economies for the promotion of investment, which is required from both the business perspective as well academic perspective.

Furthermore, the success of eco-entrepreneurship ventures is largely dependent on support mechanisms developed by centralised or decentralised institutions. Feed-in tariffs and quantity based schemes are examples of these support mechanisms and help to create a protected environment where the eco-entrepreneurship venture is not fully exposed to market conditions (Ball & Kittler, 2019).

When properly implemented, both decentralised and centralised institutional policies have a positive impact on eco-entrepreneurship. This impact is seen both in the number of eco-entrepreneurship start-ups as well as the limited number of established eco-venture failures (Ball & Kittler, 2019). Therefore, the incorporation of institutional theory in eco-entrepreneurship is a promising approach. However, this approach can be used to study only one dimension relating to the regulatory environment and the creation of the marketplace. This theory does not sufficiently cover the required scope to understand the phenomenon under study, although some aspects of the phenomenon may be appropriately covered, such as the creation of a regulatory environment and marketplace.

2.4 Stakeholder theory as the theoretical lens for this research

2.4.1 The relevance of the theory to this research

Stakeholder theory is a widely used theory in social, environment and sustainability research (Frynas & Yamahaki, 2016; Montiel & Delgado-Ceballos, 2014). The use of traditional theories in sustainability research has been encouraged as they may surface useful insights and contribute to addressing the sustainability challenges (Starik & Kanashiro, 2013). Stakeholder theory has been identified as a useful theory to apply in sustainability studies (Garvare & Johansson, 2010; Hörisch et al., 2014). This research, therefore, uses this theory as a lens to study the balancing of trade-offs between economic and ecological goals in eco-entrepreneurship.

2.4.2 Introduction to stakeholder theory

2.4.2.1 *Chronicles of stakeholder theory*

The concept of stakeholder relations management came into business discourse in 1941 (Garvare & Johansson, 2010), but was later brought to academic discourse in 1984 by

Freeman (1984). The theory was developed to make business policies and strategies more effective (Freeman et al., 2020). Other ideas of the complex stakeholder theory were developed alongside Freeman's stakeholder theory (Freeman et al., 2020), notably Eric Trist's work on creating worker-centric management theories back in 1981, and the early developments in corporate social responsibility by Abt Associates (Freeman et al., 2020).

At its inception phase, stakeholder theory was characterised by the explicit normative idea of ensuring that decision-makers make better decisions (Freeman et al., 2020; Hörisch et al., 2014). However, stakeholder theory was swayed by theorists who insisted that its constructs needed to more closely approximate the physical sciences (Freeman et al., 2020). Although this sway occurred, work on the development of stakeholder theory continued, notably with more normative studies in the field of business, ethics and society (Freeman et al., 2020). Amid this stall in the development of stakeholder theory, pockets of stakeholder-oriented firms began to implement the insights surfaced by the small number of scholars who continued to investigate this theory (Freeman et al., 2020).

Stakeholder theory moved from strength to strength in terms of its recognition. In the 1990s scholars from the field of management and strategy rediscovered the theory and began publishing related studies, markedly in prominent journals such as the *Academy of Management Review* (Freeman et al., 2020). This period provided for advancements in the theory, notably the study that showed that the theory could be divided into descriptive, normative and instrumental facets (Donaldson & Preston, 1995). Donaldson and Preston (1995) sparked a renewed interest in stakeholder theory with most strategy scholars' relevant work focusing on the descriptive and instrumental elements.

The theory continued to develop with several arguments, with some scholars highlighting the importance of continuing with the initial normative concerns that plagued stakeholder theory in the initial years of its development (for example, Jones & Wicks's, (1999) calls for convergent stakeholder theory). Freeman (1999) counterargued, later supported by R. A. Phillips (2003), against the convergent stakeholder theory proposition, defending divergent stakeholder theory. Although now advanced in its development, stakeholder theory still has some way to develop in relation to other mechanics of business such as (Freeman et al., 2020):

- ▶ The methods of company performance analysis. Question of whether to measure profits and whether the profit relates to the value creation of a business, a pivotal construct of the theory.
- ▶ The existing accounting methods do not adequately cater to the full use of

stakeholder theory as they often only measure how a business creates economic value for its shareholders but does not account for stakeholders.

- ▶ The narrow economic view of stakeholders rather than the recognition of stakeholders fully human.
- ▶ The ethics of business need to be re-examined from an ethical theory perspective. This relates to issues of whether a business can be a morally good institution and how value could be created in a just and fair manner for all stakeholders.

2.4.2.2 Stakeholder theory

Stakeholder theory as proposed by Freeman views a firm as the convergence of expectations and interest of independent actors culminating in consideration and integration into a firm's strategy (Pedrini & Ferri, 2019). This theory conceptualises the key objective of a business as being that of value creation targeted at all involved stakeholders (Freeman, 1984; Schaltegger et al., 2019).

Traditional or Schumpeterian entrepreneurship has always been associated with the creation of businesses that serve those that have a vested interest in economic terms, that is, the shareholders (Dhahri & Omri, 2018). Stakeholder theory seeks to challenge the notion that businesses simply exist for the purposes of maximising profits, thus shareholder returns (Freeman, 1984; Hörisch et al., 2014). The notion of profit maximisation has led to many challenges including moral hazards, negative externalities, monopoly power and sustainability challenges (Freeman, 1984; Hörisch et al., 2014). Stakeholder theory was meant to prevent management from acting solely on single focused shareholder interests often resulting in societal ills such as stock market crashes, corporate scandals and environmental market failure (Hörisch et al., 2014).

Therefore, to address these challenges, stakeholder theory promoted the management of stakeholders by balancing their objectives and relationships (Freeman et al., 2010, 2020). The theory suggested that firms manage their relationships with their various stakeholders and incorporate their viewpoints into their strategy and decision making, deliberately (Freeman et al., 2004). The theory supposes that a firm's actions have an impact on others in and outside the firm, the stakeholders. Therefore, the stakeholders have a claim on the firm, thus should be treated as ends in themselves rather than just means to some ends (Hörisch et al., 2014).

According to Freeman (1984), stakeholders can be considered as "those groups and individuals who can affect or be affected" by the business activities (p. 25), since

stakeholders affect and can be affected by a firm, *Figure 3* represents stakeholder interaction with, for example, sustainability firm's (Hörisch et al., 2014; Schaltegger et al., 2019). Stakeholders were further classified into normative stakeholders (the stakeholders to which the firm is morally obligated) and derivative stakeholders (entities that impact the organisation, with no moral obligation to them) (R. Phillips et al., 2003).

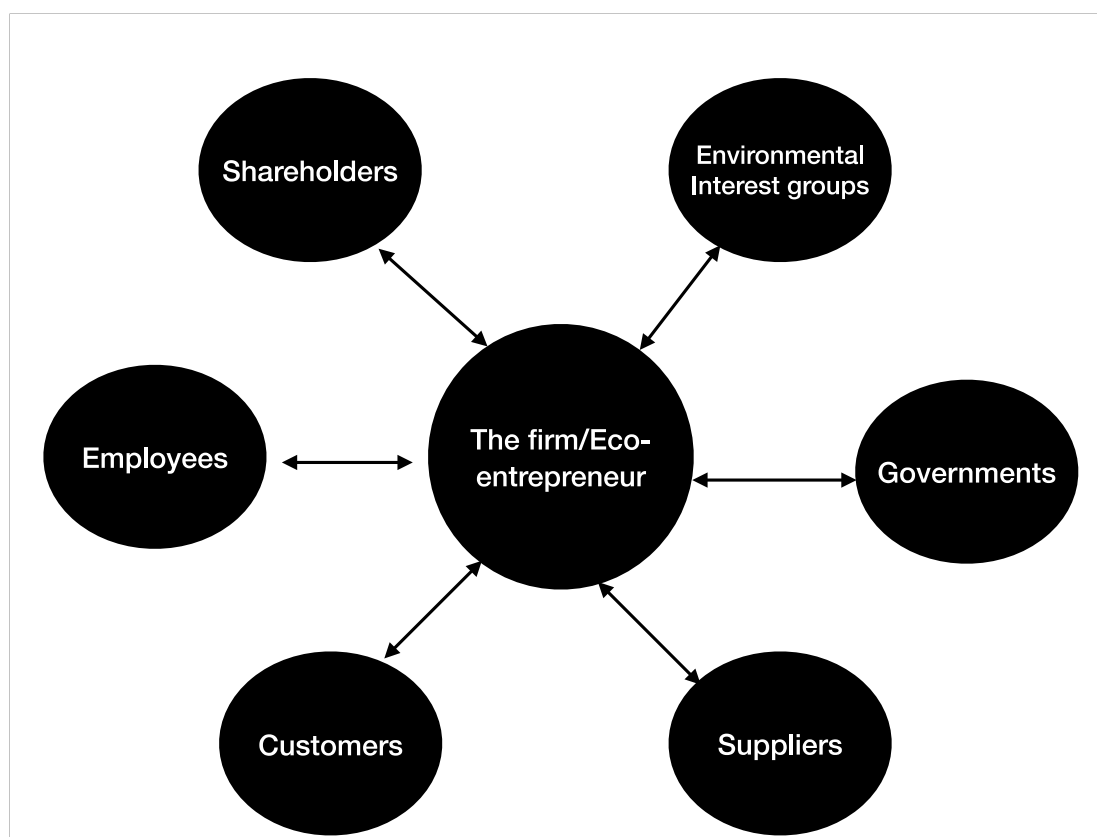


Figure 3: Relationships between stakeholders and the firm or eco-entrepreneurship venture (Schaltegger et al., 2019)

The firm or eco-entrepreneur creates value for these stakeholders in the form of taxes for the government, supplier payments for suppliers, products and services for customers, salaries for employees, interest or share growth for shareholders and financiers, and lastly, environmental improvement for the environmental interest groups (Schaltegger et al., 2019). Meeting all these stakeholder expectations and managing the relationships is a case of business management (Freeman, 1984; Schaltegger et al., 2019).

To conclude this subsection, it is important to discuss how stakeholder theory views the manager in a firm. Stakeholder theory considers the manager to be the agent of the firm (Freeman, 1984). However, the theory also recognises that the manager is also an employee of the firm, hence one of the stakeholders who affects and is affected by the

firm (Freeman, 1984). This could promote opportunistic behaviour by the manager due to the level of control they have over the decisions made by the firm (Jensen, 2001). This view, however, was disputed by R. Phillips et al. (2003). They argued that even if opportunism existed in the management of a firm in the name of stakeholder theory, the manager is accountable to other stakeholders such as employees, customers, governments and shareholders. These multiple stakeholder relationships ensure accountability and limit managerial opportunism. Further to the issue of managerial opportunism, the recognition of the manager as an agent of the firm suggests that managers that experience the phenomenon under study can be used as a unit of analysis representing the firm's experiences.

2.4.2.3 Normative, instrumental and descriptive stakeholder theory

The Donaldson & Preston (1995) three-way categorisation of stakeholder management proposes the descriptive, instrumental and normative perspectives to the theory. Moral and philosophical guidelines are the basis of the normative theory, while the instrumental approach serves to link stakeholder management to organisational goals, lastly, the descriptive approach relates to the perspectives of managers and stakeholders of their roles (Donaldson & Preston, 1995).

Although these approaches to stakeholder theory are useful in evaluating the relationships and how stakeholder theory is used, this study focuses on the version of stakeholder theory proposed by Freeman (1984) and Freeman et al. (2010), which integrates the descriptive, instrumental and normative theories.

2.4.3 Stakeholder theory and eco-entrepreneurship

2.4.3.1 Stakeholder theory in sustainability

Although the subject of this study is that of economic and ecological trade-offs as found in literature (for example, Allen and Malin (2008), Antolin-Lopez et al. (2019), Hockerts and Wüstenhagen (2010) and O'Neill and Gibbs (2016)), Hahn and Aragón-Correa (2015) supported by Norman and Macdonald (2004) and von Weizsäcker et al. (2009), suggest that firms that seek to make a difference through the sustainability logic do not even recognise the existence of trade-offs but exclusively focus on creating synergies. This synergistic approach can be defined as a realistic method of progressively developing a collection of different values that guarantees the participation and support of different stakeholders (for example, employees, financiers, and environmental interest groups) in contributing to sustainability (Schaltegger et al., 2019). This highlights the important role

stakeholders play in the creation of synergies that help businesses overcome trade-offs. Although this importance is demonstrated, stakeholder theory has not been used in prior literature to understand the role of stakeholders in overcoming trade-offs in sustainability or its eco-entrepreneurship subfield. Further supporting the need and relevance of the current study in improving the extant literature in eco-entrepreneurship.

2.4.3.2 Stakeholder theory in eco-entrepreneurship

Stakeholder theory advances the idea that business is embedded in society and shares an interdependency with society. Moreover, the theory suggests that the main purpose of business is to create value for all stakeholders (Freeman, 1984; Freeman et al., 2010, 2020). Eco-entrepreneurship is defined as the process of using both the commercial and ecological logic to address environmental degradation by creating financially profitable organisations, products, services and markets (York et al., 2016). This eco-entrepreneurship definition suggests an interdependence between the organisation and its environment and society at large. Therefore, stakeholder theory and eco-entrepreneurship share the same view that seeks to extend the purpose of business to more than simply focusing on short-term shareholder interest or profits. Both concepts focus on understanding the role of business by positing that business is embedded, dependent and obligated to all those that it affects and is affected by.

In eco-entrepreneurship, eco-entrepreneurs are expected to correct the environmental market failure currently facing the world. This view suggests that eco-entrepreneurs go beyond the old ideas of defining their success through accounting profits. Eco-entrepreneurs are rather expected to act ethically by ensuring that their activities provide positive ecological externalities (Galkina & Hultman, 2016; Larson, 2000; Pastakia, 2002; Schaltegger, 2002). Studies on eco-entrepreneurial typologies relived that eco-entrepreneurs have a strong environmental orientation albeit competing with their entrepreneurial orientation (DiVito & Bohnsack, 2017; York & Venkataraman, 2010). Similarly, stakeholder theory rejects the idea that ethics are separate from business and considers these as fundamentally interlinked (Hörisch et al., 2014). Stakeholder theory recognises that to create long-lasting value for shareholders, ethical issues must be linked to the core of the business as are ecological concerns in eco-entrepreneurship (DiVito & Bohnsack, 2017; Freeman, 1984; Freeman et al., 2020; R. Phillips et al., 2003).

Additionally, stakeholder theory is not opposed to profit-making, rather that, in the creation of profits, all those impacted in the process are considered including society and the ecology (Freeman et al., 2010; Hörisch et al., 2014). The creation of synergies and

mutuality between differing interests are at the core of both concepts. In this regard, eco-entrepreneurship creates value by considering both the shareholder interests as well as ecological aspects (York et al., 2016). Therefore, both concepts are supportive of profit-making provided that the value created benefits all stakeholders including the ecology.

Furthermore, stakeholder theory and eco-entrepreneurship share core similarities in that they both have descriptive, prescriptive and instrumental aspects (Hörisch, 2015; Hörisch et al., 2014). These concepts describe what entrepreneurs or firms do, challenge existing means of solving business problems and how they should create value. Lastly, because they are both based on normative principles, both concepts necessarily contain a prescriptive element (Freeman et al., 2010; Starik & Kanashiro, 2013).

In conclusion, stakeholder theory, in the social setting, is about addressing trade-offs and conflicts of profits creation and ethical obligations by creating mutually between different stakeholder interests (Freeman et al., 2010). This study seeks to understand how eco-entrepreneurs overcome economic and ecological trade-offs. These similarities suggest that stakeholder theory is a promising theory in the study of trade-offs in eco-entrepreneurship.

2.4.3.3 The application of stakeholder theory in eco-entrepreneurship

In the context of sustainability studies, stakeholder theory can be applied in one of two ways. Firstly, by considering the ecological environment as a stakeholder (Hörisch et al., 2014; Waddock, 2011), second, by considering the human beings, groups and other organisations as stakeholders with ecological protection interests (Freeman et al., 2010; R. Phillips et al., 2003). Similar to the study undertaken by Hörisch et al. (2014) where, human beings were considered as ecological agents in the development of their conceptual framework, this study also uses this approach to stakeholder identification. Furthermore, although Hörisch et al.'s (2014) conceptual framework was developed for sustainability, this study adopts this conceptual framework as a credible framework to use in the study of eco-entrepreneurship because eco-entrepreneurship is a subfield of sustainability studies (Gast et al., 2017; Schaltegger & Wagner, 2011).

Moreover, eco-entrepreneurship consists of different typologies depending on the values to which the entrepreneur subscribes (Antolin-Lopez et al., 2019; Galkina & Hultman, 2016; Isaak, 2002). Although these typologies exist, all eco-entrepreneurs have some environmental orientation that promotes ecological consideration (Gast et al., 2017). Similarly, in Schumpeterian entrepreneurship, stakeholders cooperate around values rather than acting in a moral vacuum (Freeman et al., 2000). Although the eco-

entrepreneur is assumed to have an ecological orientation, other stakeholder values may not align with the entrepreneur's values. In this instance, there can be no corporation among stakeholders unless mutual interests have been created (Hörisch et al., 2014). Therefore the application of stakeholder theory to eco-entrepreneurship, requires that concern for the environment is one of the values around which stakeholders cooperate (Hörisch et al., 2014).

To solicit this cooperation, Hörisch et al. (2014) posited that first, all stakeholders' mindsets must be anchored in the concern for ecology value, second, creating shared sustainability goals based on the specific sustainability goals of individual stakeholders is necessary and lastly, empowering of societal stakeholders to act as intermediaries between the company and nature. Fortunately, ecological challenges in society and therefore business, have continued to receive attention in recent years (Antolin-Lopez et al., 2019; Dhahri & Omri, 2018; Gast et al., 2017; Schaltegger et al., 2019). However, this has increased the complexity of business by requiring businesses to explicitly consider ecological factors, resulting in the involvement of additional stakeholders in business activities (Schaltegger et al., 2019), further supporting the case for the relevance of stakeholder theory to this study.

2.4.4 Stakeholder role and their incorporation into decision-making in eco-entrepreneurship

Although improvements in ecological awareness and associated mitigation action have been observed, ecological challenges have continued to mount signalling that the corrective action undertaken has not been sufficient to address these challenges. It follows therefore that perhaps, the concern for ecological challenges is not yet shared by most of the world's population or that the population is not yet empowered to effect the required change. Therefore, the first challenge of creating mutual stakeholder interests (Hörisch et al., 2014) remains relevant. This further demonstrates of society as a stakeholder, that with empowered populations, regulations and consumer behaviour will continue to shift creating new markets for eco-entrepreneurs (Dhahri & Omri, 2018; Lehmann et al., 2021; Severo et al., 2021).

Hörisch et al.'s (2014) second challenge acknowledges that stakeholder theory was developed to solicit cooperation. In this regard, they suggest that mutual sustainability or ecological interests be established based on the sustainability or ecological interest of the individual stakeholders. They also highlighted that, although these stakeholders may have similar interests as anchored in sustainability or ecological concerns, these interests may

be conflicting. Stakeholder interests may differ, for example, when a renewable energy project is considered, although it may be considered good for the environment on the one end, thus supported by some stakeholders, other stakeholders who more closely support the preservation of nature and landscape may not necessarily support the project (Hindmarsh, 2010). To overcome these trade-offs, Hörisch et al. (2014) posit that revealing the mutual sustainability or ecological interests of stakeholders is paramount. These ideas are reflected in the conceptual framework presented in *Figure 4* developed by Hörisch et al. (2014).

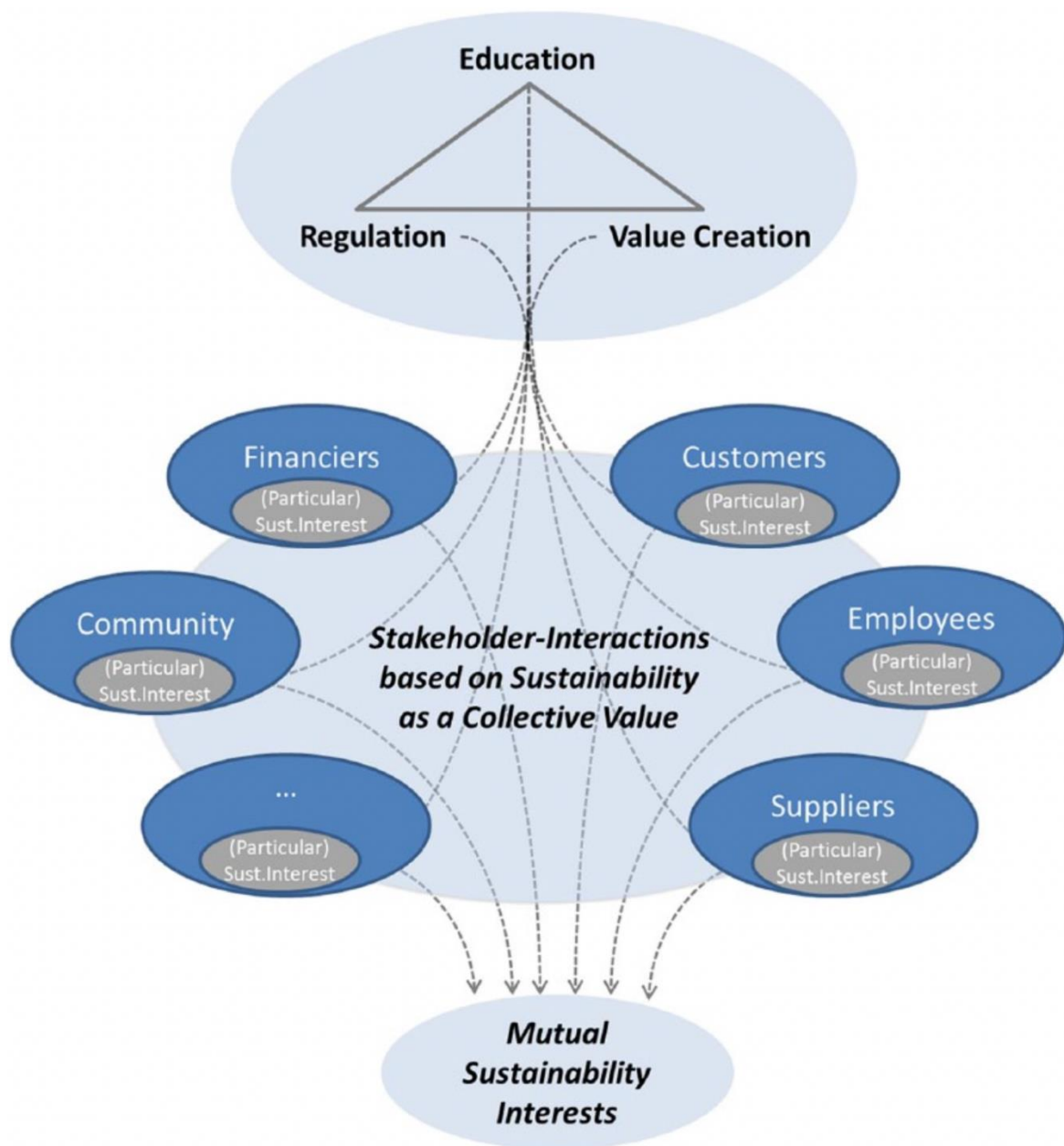


Figure 4: Conceptual framework Sustainability Management (Hörisch et al., 2014)

Education has been seen as a vehicle to resolve the first challenge of soliciting the cooperation of stakeholders to work toward ecological protection (Hörisch et al., 2015). Education can help stakeholders gain the knowledge they need to understand the pressing ecological challenges and the potential benefits linked to these challenges (Hörisch et al., 2014). Institutions and regulators need to create regulations with strong incentives to encourage stakeholder cooperation toward providing solutions to the ecological challenges (Hörisch et al., 2014; York et al., 2016). In securing stakeholders that will represent nature's interests, value creation for stakeholders should be properly demonstrated (Hörisch et al., 2014; Schaltegger et al., 2019).

Therefore, the role of the institutional and regulatory stakeholders is to create regulatory frameworks within which eco-entrepreneurs can operate. Eco-entrepreneurs can then incorporate all stakeholder interests by creating mutual interests with ecological protection as the anchoring value among stakeholders (Hörisch et al., 2014).

Their conceptual framework sought to address the three challenges associated with gaining stakeholder cooperation in sustainability management or eco-entrepreneurship as adopted by this study, by the three interrelated mechanisms, education, regulation and value creation (Hörisch et al., 2014). According to Hörisch et al. (2014), "*the mechanisms aim (1) to strengthen the sustainability mindsets of stakeholders, (2) to create mutual sustainability interests based on particular sustainability interests, and (3) to empower societal stakeholders to act as intermediaries on behalf of nature*" (p. 338).

2.4.5 Elements of stakeholder interaction

Research suggests that knowledge is the key to promote sustainable practices (Hörisch et al., 2014). Through education, stakeholders including eco-entrepreneurs can acquire the necessary skills to resolve ecological challenges and improves stakeholder awareness of these challenges (Hörisch et al., 2015). Moreover, the creation of common interests is viewed as a pivotal element of stakeholder interaction in the quest for stakeholder cooperation (Hörisch et al., 2014). Eco-entrepreneurs also need to meet stakeholder expectations by incorporating these into their business strategy, the stakeholders are in turn expected to meet the eco-entrepreneur's expectations (Schaltegger et al., 2019). Eco-entrepreneurs often interact in a collaborative relation with regulators to establish regulations that impact the business environment (Schaltegger et al., 2019). Eco-entrepreneurs also interact with their stakeholders by demonstrating the value add they

provide to the stakeholders thus establishing stakeholder interest in establishing collaborative relationships with stakeholders (Schaltegger et al., 2019).

2.5 Conclusion

This chapter demonstrated the urgency of the action required to curb the rampant environmental market failures that have been experienced resultant from existing means of production. The environmental market failure has had far-reaching effects such as rising global temperatures, droughts and loss of biodiversity, among others. These effects then led to the establishment of the concept of sustainable development which considers the impact businesses have on the environment, society and the economy. The early conceptualisation of sustainability was well debated by scholars and the current understanding as described above is well agreed upon.

Entrepreneurship, since it is considered the catalyst for the establishment of businesses, was considered as the main driver of the environmental market failure. Recently, instead of blaming entrepreneurship, there is consensus among scholars that entrepreneurship might be the saving grace for these ecological grand challenges. However, the form of entrepreneurship being considered relevant to help solve these ecological challenges is not what had been used in decades past. Rather the proposed form of entrepreneurship is that which seeks to provide economic activity while solving ecological challenges.

This chapter further establishes that this form of entrepreneurship is not well researched requiring further development. The chapter further demonstrated the lack of consensus, in the main, on the definition of this entrepreneurship. Then a proposed definition of this form of entrepreneurship was decided based on existing literature and views of the researcher as to the most appropriate definition for this form of entrepreneurship.

Firstly, this study refers to this form of entrepreneurship as eco-entrepreneurship where other studies may refer to sustainable entrepreneurship, ecopreneurship (a contraction of eco-entrepreneurship), environmental entrepreneurship and ecological entrepreneurship, among others. Secondly, this study uses York et al.'s (2016) definition “[*Environmental entrepreneurship*] is the use of both commercial and ecological logics to address environmental degradation through the creation of financially profitable organizations, products, services, and markets” (p. 695).

The literature reviewed indicated that, although academic scholars have not settled on one term when referring to this form of entrepreneurship, in recent years, notably post the 2000s, new studies have established common constructs. There is consensus on the

essence of eco-entrepreneurship intimating that eco-entrepreneurship is inherently a multidimensional construct with economic and ecological logics as core to this entrepreneurship.

However, literature also indicates that due to the existing market structures the economic and ecological logics are of paradoxical nature. The current market structure is such that production is undertaken with efficiency at the core while environmental concerns remain secondary. This presents a paradoxical goals challenge for the eco-entrepreneur. As they seek to meet their economic goals, the existing market structure makes it difficult for the meeting of their ecological goals to the same degree. Literature then suggests that this presents the challenge of trade-offs between their economic and ecological goals. Furthermore, literature posits that eco-entrepreneurs must overcome these trade-offs for the success of their businesses. The same, advocates for research that studies how these eco-entrepreneurs overcome these trade-offs.

To understand the phenomenon, the researchers looked at existing theories that might help explain this phenomenon. The theory decided on was stakeholder theory. This theory has been used in sustainability studies for decades. Since eco-entrepreneurship is considered a subfield of sustainability studies, the outcomes of the use of sustainability studies that used stakeholder theory were used to evaluate the appropriateness of this theory.

Stakeholders, as demonstrated, have significant roles to play in the success or failure of an enterprise. Moreover, stakeholder theory, as demonstrated above, seeks to minimise trade-offs in businesses. Further, the theory looks to benefit all stakeholders regardless of their influence on the organisation. In this regard, this research considers all human stakeholders including those that act as intermediaries for the environment. Using Hörisch et al.'s (2014), the research studies the role stakeholders play in overcoming the trade-offs.

This chapter established six themes as follows:

- Theme 1:** The inherent economic and ecological logics in eco-entrepreneurship
- Theme 2:** Existing market structure set-up is not conducive for eco-entrepreneurship leading to trade-offs between their economic and ecological goals
- Theme 3:** Understanding of stakeholder theory, a theory of mutuality among stakeholders with differing interests, is a promising theory to study the eco-entrepreneurship trade-offs

- Theme 4:** The role of stakeholders in eco-entrepreneurship vary depending on their interests. The role of the regulator is different to the role of an education institution or a financial institution
- Theme 5:** Understanding stakeholders allows for the inclusion of these interest in decision-making by their incorporation into the eco-entrepreneurship strategy with the view to satisfy the stakeholder needs
- Theme 6:** Education, regulations and value creation the key elements of stakeholder interaction to creating stakeholder cooperation

As environmental market failures continue to persist, eco-entrepreneurship will continue to receive attention as a potential vehicle to solving these challenges. The study of eco-entrepreneurship is not an established research field and still lack consensus on the concept definitions. There are several gaps in this study field however, this research focuses on how eco-entrepreneurs overcome trade-offs between economic and ecological goals in their businesses, with a particular focus on the role of stakeholders.

Chapter 3: Research Questions

3.1 Introduction

To understand how eco-entrepreneurs overcome the trade-offs between their economic and ecological goals, this research seeks to meet the following objectives:

- ▶ Understand the role of stakeholders in the development of economic and ecological objectives in eco-entrepreneurship.
- ▶ Understand how eco-entrepreneurship ventures incorporate conflicting stakeholder interests into their decision-making process.
- ▶ Establish the particular elements the role of stakeholders play to positively contribute to the successful balancing of economic and ecological trade-offs in eco-entrepreneurship.

Chapters 1 and 2 explored the beginnings of eco-entrepreneurship and highlighted its associated challenges. These Chapters explored the evolution of the conceptualisation of eco-entrepreneurship and identified that economic and ecological logics are inherent to eco-entrepreneurship. It was further identified that the existing market structure has not progressed enough to resolve ecological grand challenge. Consequently, eco-entrepreneurs experience trade-offs between their ecological and economic goals since they operate within the existing economic market structure. Since stakeholder theory is premised on the creation of value for all involved stakeholders, these Chapters explored this theory for application into this study. Its appropriateness was established and its relevant key features were incorporated into the research questions that follow.

3.2 Research question

Research question 1: What is the role of stakeholders in economic and ecological objectives development in eco-entrepreneurship?

This research question explores the role of stakeholders in the development of goals in eco-entrepreneurship, more specifically their economic and ecological objectives. The basis of the objectives that exist in eco-entrepreneurship will be explored and insights on the role stakeholders play in the goal-setting process. The exploration of this question will further provide insight into how conflicting interests are dealt with in eco-entrepreneurship, providing an early foundation for the understanding of the phenomenon under study (Schaltegger et al., 2019).

Research question 2: How are stakeholder interests incorporated in decision making to

ensure the success of eco-entrepreneurship ventures?

Freeman (1984), Freeman et al. (2010) and Schaltegger et al. (2019) recognised that strategy development through stakeholder management will likely involve establishing mutual interests among stakeholders so that the organization can achieve success. This research seeks to investigate how eco-entrepreneurs overcome the trade-offs challenge analogous to Freeman's (1984) proposal that the establishment of mutual interest thus value creation for all affected and impacted stakeholders is pivotal for success. Therefore, exploring how they establish mutuality among their stakeholders will provide insight into how they meet the paradoxical economic and ecological goals.

Research question 3: Which elements of stakeholder role contributes positively to overcoming these ecological and economic trade-offs?

This research question seeks to establish whether some aspects of stakeholder roles are more beneficial to the overcoming of the trade-offs under study. Eco-entrepreneurship is a multidimensional concept with many underlying constructs, therefore, the relationships that the eco-entrepreneur establishes with their stakeholders may be equally complex with some impacting positively their goals dilemma, some impacting negatively (Freudenreich et al., 2020). Hörisch et al. (2014) identified three key challenges associated with stakeholder theory and its application to sustainability studies. This further support the need and relevance of this research question.

3.3 Conclusion

Using semi-structured interviews these research questions were explored facilitated by the interview guide in Appendix 2 (see appendix [here](#)). The questions are exploratory in nature, therefore, the qualitative approach to enquiry was used. The participants were asked various questions explorative questions seeking to answer these questions to then give propositions to the main research question.

Chapter 4: Methodology

4.1 Introduction

This chapter describes the method followed to answer the research questions. The chapter identifies the research design chosen for the study and provides motivation for the chosen research design. The philosophy used for this research is then discussed. The chapter then progresses by identifying the method to theory development, methodological choice, research strategy and time horizon for the study.

The research methodology section of this chapter provides insights into the chosen population and provides reasons for the choice. The unit of analysis is also discussed in this section to provide an understanding of the population and how it relates to the unit of analysis. The sampling method and sample size are then discussed with the sample size informed by the chosen research strategy. The interview guide used to collect data is then discussed followed by the actual data gathering process and data storage. This chapter then discusses the data analysis approach, the quality control process, validity and reliability of the research, data saturation and finally, outlines the limitations associated with this research.

4.2 Purpose of research design

Gast et al. (2017) identified qualitative research as the most appropriate research method to contribute to the current understanding of eco-entrepreneurship. Highlighted further by Antolin-Lopez et al. (2019); Dhahri and Omri (2018); York et al. (2016), there is a need for more theoretical refinement and development on aspects relating to the intentions and behaviours of eco-entrepreneurs, a research area to which this study will contribute. The research conducted by Gast et al. (2017) and Antolin-Lopez et al. (2019) was meta-analytical in nature reporting on results established from various eco-entrepreneurship peer-reviewed articles. Their suppositions of the lack of developed theories and concepts in the study of the eco-entrepreneurship phenomenon supported the need and purpose for this research study.

As demonstrated in the preceding sections, research on how eco-entrepreneurs simultaneously overcome the competing economic and ecological goals in eco-entrepreneurship is not well understood. Furthermore, eco-entrepreneurship is practised in a complex system with many stakeholder interests. Therefore, the purpose of this research was to provide insights into how eco-entrepreneurs successfully manage their entrepreneurial ventures and whether stakeholders play a role. This kind of study can be

described as an exploratory study that seeks to provide tentative propositions to the research questions for further empirical research (M. Saunders & Lewis, 2018).

4.3 Philosophical worldview

Saunders and Lewis (2018) described research philosophy as a system of assumptions and beliefs about how knowledge is developed and its nature. Further, they identified and defined five research philosophies, positivism, realism, interpretivism, postmodernism and pragmatism. Researchers are advised to declare their philosophy to help explain the choices they make around the methodology (Creswell, 2014).

The researcher was born in rural South Africa and experienced many childhood hardships. An understanding and sympathy for the marginalised coupled with issues of power and justice are core to the researcher's worldview. The researcher often prioritises stakeholders who would otherwise not have a voice in business decision-making which is often preceded by some form of research. The researcher, therefore, believes that research outcomes should be targeted at solving whatever social ills are relevant to the research area. An expectation that research will contain some call for action agenda that seeks to change participants lives or institutions is often at the forefront of the researcher when evaluating research. It was deduced that this research philosophy is that described by Creswell (2014) who intimated that this research philosophy is that of a transformative worldview. Creswell (2014) described the transformative worldview as "*A transformative worldview holds that research inquiry needs to be intertwined with politics and a political change agenda to confront social oppression at whatever levels it occurs (Mertens, 2010). Thus, the research contains an action agenda for reform that may change lives of the participants, the institutions in which individuals work or live, and the researcher's life*" (p. 38).

Although this research does not focus on the lives and experiences of diverse previously marginalised groups as Creswell (2014) suggests, the researcher views ecological challenges as worthy of being considered marginalised due to the inadequate action societies has taken to resolve these issues. The researcher further chose stakeholder theory as the most appropriate theory for this study, a theory that seeks to eliminate trade-offs in relationships, further supporting this transformative supposition for this research's philosophy. This research studied those that overcome economic and ecological trade-offs with the intention to provide guidance on how others may implement similar processes and accelerate the establishment of eco-entrepreneurship ventures required to resolve the ecological grand challenges.

4.4 Approach to theory development

This research was aimed at providing explanations about how eco-entrepreneurs overcome trade-offs in their economic and ecological goals and gain insight as to whether stakeholder orientation plays a role in the phenomenon. Accordingly, the inductive approach to theory development was used to derive themes through data analysis and to provide concepts or explanations that arose from the research data (M. Saunders & Lewis, 2018). The themes were used to provide explanations that describe relationships between theoretical concepts (Gioia, Corley & Hamilton, 2013; Saunders & Lewis, 2018). The literature chapter demonstrated that this field of research is nascent with few developed concepts. It further demonstrated that this field of study still has not agreed on a universal term for use when referring to eco-entrepreneurs. Lastly, current studies of eco-entrepreneurship have not sought to use stakeholder theory as a theoretical lens to understand the economic and ecological trade-off which have been proved inherent to eco-entrepreneurship, further supporting the decision for using the inductive approach to theory building.

4.5 Methodological choice

This research was focused on identifying and exploring concepts, therefore semi-structured interviews were used to achieve the required exploration (M. Saunders & Lewis, 2018). The methodological choice allowed for in-depth exploration of the phenomenon of balancing the trade-offs under study.

4.6 Strategy

Prior to this study, this research topic had not been investigated in the context of eco-entrepreneurship (Antolin-Lopez et al., 2019; Gast, Gundolf & Cesinger, 2017; O'Neil & Ucbasaran 2016). Furthermore, stakeholder theory was used to provide framing for the initial research propositions and later used in the development of explanations, no other similar studies were found with similar framing. Therefore, the need to explore this new area in the field of eco-entrepreneurship was apparent.

Phenomenology is the most suited research strategy for this type of research (Creswell, 2014; Creswell et al., 2007) due to the notion that the research was characterised by descriptions of what the research participants have in common as they experience the overcoming of economic and ecological goals in eco-entrepreneurship. Therefore, the expectation was that the research would surface insights into the lived experiences of the individual entrepreneurs as they overcame the phenomenon, that is, the economic and

ecological trade-offs and the role of stakeholders in overcoming the phenomenon. Therefore, this research adopted phenomenology as the research strategy to study the lived experiences of the eco-entrepreneurs relating to the phenomenon of overcoming trade-offs between economic and ecological objectives in their ventures.

4.7 Time horizon

The research study analysed data that was collected from participants in only one period. This type of research study is known as cross-sectional research (M. Saunders & Lewis, 2018). The data was collected from male and female eco-entrepreneurs, from different age groups, different socio-economic statuses and different educational backgrounds. Proposed research methodology

4.7.1 Population

There is currently no consensus on the definition of eco-entrepreneurship (Antolin-Lopez et al., 2019; Dhahri & Omri, 2018; York et al., 2016). In this study, eco-entrepreneurship refers to the management of a system with an ecological mission and economic goals existing simultaneously for the entrepreneur (Antolin-Lopez et al., 2019; Gast, Gundolf & Cesinger, 2017; O'Neil & Ucbasaran, 2016). Therefore, the target population was eco-entrepreneurs who currently operate businesses that overcome economic and ecological objectives (M. Saunders & Lewis, 2018). The population was limited to business owners or managers who operate eco-entrepreneurial ventures with the below selection criteria:

- a) Entrepreneurs or managers of eco-entrepreneurial businesses focused on both economic and ecological value creation. Only the eco-entrepreneur typology discussed by Gibbs (2009); Holt (2011); Isaak (2002); Walley & Taylor (2002) will be included in this study;
- b) Established eco-entrepreneurial businesses, as described by Bowmaker-Falconer and Herrington (2020) as those businesses that have been operational and paying salaries for at least 42 months; and
- c) Entrepreneurs or managers who have experienced and are overcoming the trade-offs between economic and ecological objectives in their businesses.

4.7.2 Unit of analysis

The data collection and analysis process sought to understand the role of stakeholders in how eco-entrepreneurs balance the trade-offs between their ecological and economic goals. Phenomenology, as demonstrated was the most appropriate research strategy to understand this eco-entrepreneurship phenomenon and sought to make explicit the

implicit structure and meaning of the human experiences (Sanders, 1982).

The researcher kept fidelity to the subject matter in archiving the research objectives by collecting data from sources that were relevant to the research goals (Levitt et al., 2018). The unit of analysis appropriate for this research is, therefore, the actors that balance the trade-offs between ecological and economic goals in eco-entrepreneurship and the stakeholders that impact their decision-making process.

4.7.3 Sampling method and size

The researcher established that a list of the full population of eco-entrepreneurs will not be obtainable. This, according to Saunders and Lewis (2018), means that probability sampling could not be used for this research as the sampling frame was not available. Therefore, non-probability sampling techniques were applied, with the researcher using his existing personal network to access participants for this study.

Purposive sampling, the most frequently used form of probability sampling (Flick, 2009; M. Saunders & Lewis, 2018), was used to ensure that participants bring the insight required to complete this study. The limited time available to complete this study meant that only a small sample could be selected for interviews, further supporting the choice for the use of purposive sampling (Flick, 2009; M. Saunders & Lewis, 2018). Furthermore, the researcher used their own judgement to select the actual participants based on the selection criteria presented in *Section 1.7.1* of this proposal. The selection criteria additionally assessed the following:

- a) The eco-entrepreneur or manager must have experienced the phenomenon of balancing trade-offs between ecological and economic goals in their businesses.
- b) The selected participants must be decision-makers that have a significant impact on their organisation's decisions.
- c) Eco-entrepreneurs or managers that operate businesses that have been paying salaries for at least 42 months.
- d) Businesses that have active engagement with stakeholders who influence and are influenced by the business.

Furthermore, to ensure the credibility and value, that is, ensuring data adequacy, of the resulting themes and theories (Levitt et al., 2017, 2018; M. Saunders & Lewis, 2018), the researcher employed heterogeneous purposive sampling with a sufficiently diverse sample.

The research strategy chosen for this study, that is, phenomenology, requires that five to

twenty-five participants be used to archive saturation (Creswell, Hanson, Plano & Morales, 2007). The researcher interviewed interview between 12 participants, of which 11 were used for the development of codes and themes due to a technical error in the recording of interview with participant number three.

4.8 Measurement instrument

An interview guide was used to guide the data collection process. The interview guide was designed to serve as a guiding document that included the list of topics that needed to be asked in the interviews as well as the associated question under each topic (M. Saunders & Lewis, 2018). To document participant willingness to participate in this research, a consent form was included in the interview guide (M. Saunders & Lewis, 2018). Furthermore, the interview guide served to ensure that the interviewer asked questions that were properly researched as the most relevant in providing insights on the investigated eco-entrepreneurship phenomenon (M. Saunders & Lewis, 2018).

The interview guide was developed to help answer the main research questions. The first question of the interview guide sought to establish the relevance of the participant to the study by enquiring as to the activities of their businesses and whether they have competing goals or not. The remainder of the interview guide probing question and the research questions were related as shown in Table 2. Also indicated in this table is the relevant literature that was used in the development of each research question.

Table 2: Relating the interview guide questions to the main research questions

<u>Research question 1</u>	<u><i>What is the role of stakeholders in economic and ecological objectives development in eco-entrepreneurship?</i></u> (Schaltegger et al., 2019)
Related interview guide questions	Who are the key stakeholders that are relevant to your business and what are their interests? How were the goals decided on, who decided on these objectives and why? What relationship do the stakeholders have with the venture?
<u>Research question 2</u>	<u><i>How are stakeholder interests incorporated in decision making to ensure the success of eco-entrepreneurship ventures?</i></u> (Freeman, 1994; Freeman et al., 2010; Schaltegger et al.,

2019)

Related interview guide questions	What is the role of these stakeholders, do you consider them in decision making? How do you interact with the stakeholders in achieving your business goals?
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Research question 3	<u><i>Which elements of stakeholder role contributes positively to overcoming these ecological and economic trade-offs?</i></u> (Freudenreich et al., 2020; Hörisch et al., 2014)
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Related interview guide questions	Do the stakeholder values align with your values, how do you manage misalignment? Since your business needs to remain a going concern, when the achievement of economic and ecological goals has conflicting business outcomes, how do you manage that?
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4.9 Data gathering process and data storage

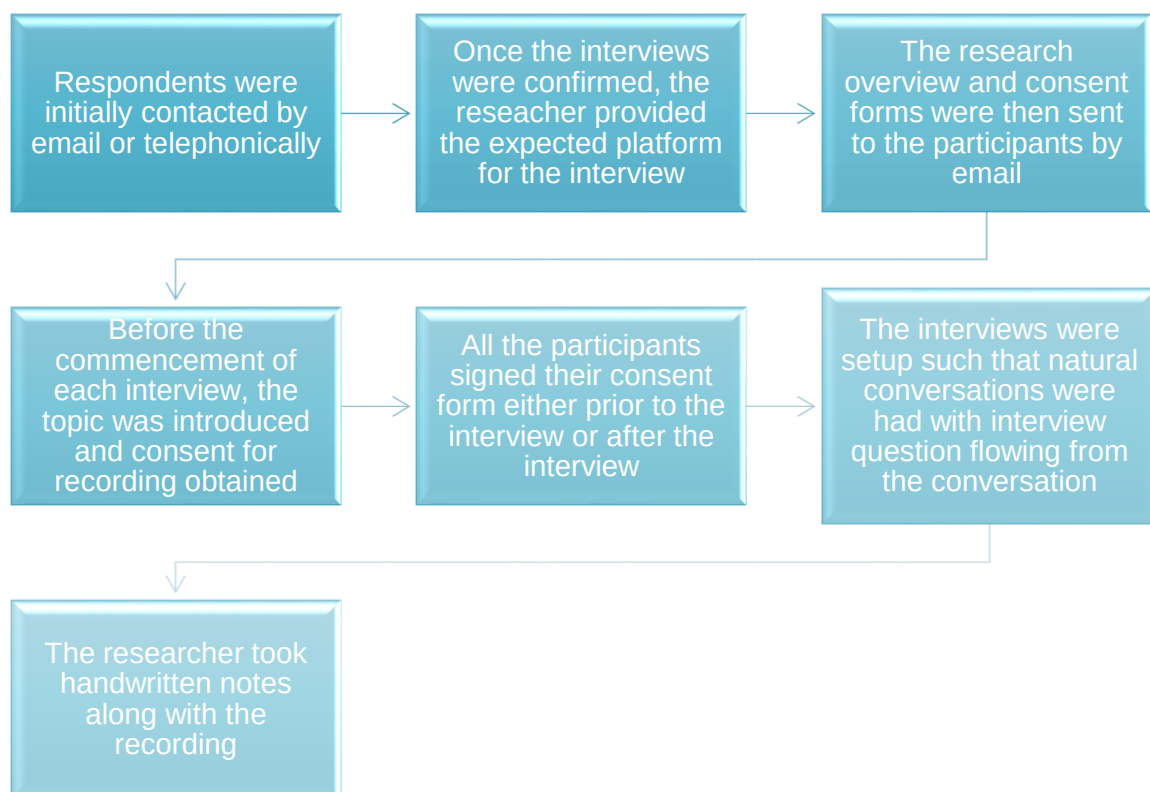
In qualitative research, the data gathering process is one of the most critical steps to ensuring the quality and rigour of the research (Gioia et al., 2013). Semi-structured interviews, a data collection method in which the participants are asked about a set of themes using predefined questions (M. Saunders & Lewis, 2018), are considered to be at the heart of phenomenological studies for obtaining both retrospective and real-time accounts of an experienced phenomenon (Gioia et al., 2013). Furthermore, phenomenology requires that semi-structured interviews be conducted such that the entire interview is recorded and later transcribed (Sanders, 1982).

The researcher used the measurement instrument to conduct semi-structured interviews of the heterogenous purposive sample. As part of the requirement for the recording and transcription of interviews in phenomenological research (Sanders, 1982), the researcher recorded and transcribed the interviews to later input into the analysis process.

The participant selection criteria chosen for this research provided a diverse group of participants. Defining a standard set of questions and themes for such a group proved difficult, fortunately, the nature of semi-structured interviews allows for the omission or

addition of questions or topics depending on their relevance to the participant. This method was applied for this research to further ensure the rigour of the data collection process (M. Saunders & Lewis, 2018).

Due to the current limitations posed by the Covid-19 pandemic, the interviews were conducted in real-time using WhatsApp™ or a web conferencing service such as Zoom™ or Microsoft Teams™. These platforms allowed the researcher to access participants in significantly disperse geographic areas (M. Saunders & Lewis, 2018), further providing for heterogeneity of the sample. Lastly, the interviews were recorded upon receipt of consent from the participant as an added advantage. The interview process is detailed in the following process flow. The interviews were conducted for one month with each meeting taking between 40 – 60 minutes, with between 35 – 50 minutes of recordings. The interviews were largely guided by the interview guide while flexible enough to allow for follow-up questions to further clarify concepts introduced by the particular respondent.



The interview recordings were stored in its original form electronically in a google drive accessible to the school for a minimum period of 10 years.

4.10 Analysis approach

The researcher noted that in qualitative research the interviewing and the analysis phases tend to proceed together (Gioia et al., 2013). In phenomenology research strategy, Sanders (1982) indicated that four levels of data analysis are applicable. The levels of phenomenological data analysis included in this research are:

- a) The description of the phenomena as per the recorded interviews, this process was utilised as the first level in the analysis of data for this research.
- b) The identification of themes or codes that emerge from the recorded data and look for similarities in the codes to develop categories, the research followed this process as later recommended by Gioia et al (2013) and later followed by O'Neil and Ucbasaran (2016) in their environmental entrepreneurship study.
- c) This level of analysis was then characterised by the development of tentative answers in explaining the categories of the second level. Concepts and relationships were then identified to further narrow the codes and themes into a more manageable number (Gioia et al., 2013).
- d) The last level of analysis was focused on answering the '*why*' of the experience (Sanders, 1982). Furthermore, once the data structure was developed, the researcher began to analyse the data theoretically and developed theoretical answers explaining the phenomenon (Gioia et al., 2013).

Before data analysis, the interviews were transcribed using freely available transcription software as the first level of the transcription process. The first level transcripts were then evaluated by the researcher to identify errors and to ensure that each transcript followed the format proposed by Saunders and Lewis (2018). The transcribed interview recordings were uploaded into the ATLAS.ti qualitative data analysis software to conduct the data analysis process (Creswell, 2014; M. Saunders & Lewis, 2018).

4.10.1 Research questions and interview guide questions

A thematic analytical method, which is similar to that proposed by Swain (2018), as shown in Figure 5, was followed. The researcher prepared the interview transcripts and uploaded these into the ATLAS.ti to conduct the initial analysis. Coding began as proposed by Swain (2018), however, a priori categories were created using the interview guide themes and used as prefixes for each code as shown in Table 3.

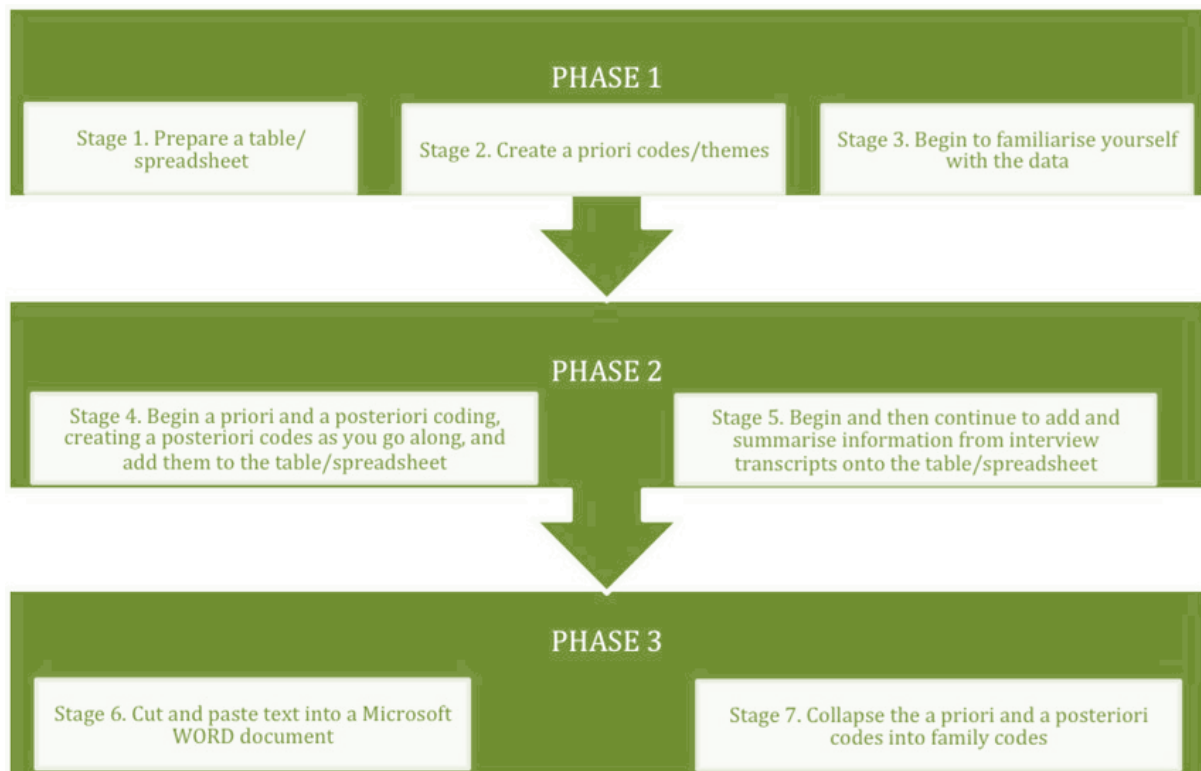


Figure 5: Swain's (2018) proposed phases and stages of thematic analysis

As the researcher created codes from data, these were related to the interview guide and research questions. Prefixes were then allocated to each code to allow for relation to the research questions at a later stage in the thematic analysis process.

4.10.2 Open coding process

Upon transcription, ATLAS.ti was used to develop open codes by tentatively developing and labelling identifying concepts in the text that the researcher deemed relevant to this study (Pidgeon & Henwood, 2004). The researcher then used the interview guide to create prefixes from each interview question and developed labels as shown in the table notes of Table 3 (Swain, 2018). Further to this, the interview guide with the prefixes related to each interview question is presented in Appendix 3 (see the appendix [here](#)). The codes were developed with the relevant prefix placed before each code to allow for linking the code to the specific research questions addressed by the interview guide question. Moreover, as open coding progressed, repeating concepts were allocated to existing codes and only new concepts were allocated new codes.

The researcher opted to use descriptive codes that provide a recognisable description of the discourse under consideration (Pidgeon & Henwood, 2004). Furthermore, to allow for

the identification of potential significant variation in concepts, the researcher sought to identify instances that concepts occurred where differences were present rather than recording all instances of the concept occurring (Pidgeon & Henwood, 2004). The researcher identified 106 codes through the open coding process, the top 30 codes are as indicated in Table 3.

Table 3: Codes identified in the open coding process -30 most reoccurring codes

Code	Number of times identified by researcher
St* assist: Market created by government legislation	37
St* interaction: Educate all stakeholders involved	18
St* interaction: Educate the clients	16
St* interest: Selfish interest among stakeholders exist	16
Deciding goals: Understanding the market	15
Motives: Ecological agent	14
St* R ^a : Establish credibility	14
LT ^b goals: Long-term process	13
St* R ^a assist: Stakeholder compromise	13
St* in decisions: Acceptable environmental risk threshold	12
St* in decisions: Consider stakeholders in decision making	12
St* R ^a assist: Open communication among stakeholders	12
St*: Importance of stakeholder identification	12
Specific St* D ^c : Enforcement of regulations	11
St* interaction: Educate the regulators	11
St* interaction: Establish trust among stakeholders	11
Goals: Innovate to remain ecologically oriented	10
St* interest: Establish stakeholder interests	10
St* interaction: Eco-entrepreneurs must be mediators	9
St* interaction: Educate stakeholders on regulations	9
St* R ^a : Stakeholder relationship building	9
Paradoxical values: Ecological and economic trade-offs	8
St* assist: Community buy-in through education	8
St* assist: Government enforcing ecological protection	8
St* assist: Regulations leading to innovation	8
St* interaction: Working with stakeholders	8
St* R ^a assist: Stakeholder negotiation for ecological protection	8
Background: Experiential environmental orientation	7
St* assist: Leverage strong stakeholder relationships	7

Notes. *St – Stakeholder. ^aR – Relationship. ^bLT - Long-term. ^cD – Decisions.

4.10.3 Thematic analysis

The appended interview guide consists of questions that sought to surface insight that can be used to explain the phenomenon under study. Similarities between the developed codes were established, grouped into themes that were then associated with each of the research questions as indicated in Appendix 4 (see the appendix [here](#)), supporting the identified nature of this inductive analysis (Swain, 2018). Further, the prefixes that were created from the interview guide questions were used to group the codes to further refine the data. Moreover, the codes created were categorical, analytical and theoretical, rather than the usually descriptive codes (G. Gibbs, 2018). The categorical nature of the codes allowed for themes to emerge. Therefore, unlike the usual steps followed in thematic analysis, where code development is followed by categorisation and then theme development (G. Gibbs, 2018), in this study there was no intermediary step between the coding process and theme development. The codes have been presented with their prefixes and then followed by the identified emergent themes as reported in *Chapter 5*.

4.11 Data saturation

Data were collected from 12 participants, with 11 interviews taken through to the data analysis phase due to a faulty recording associated with the third interview. Figure 6 indicates the number of new codes that emerged as the interview process continued. The codes progressively diminished through the interview process. It was concluded therefore that data

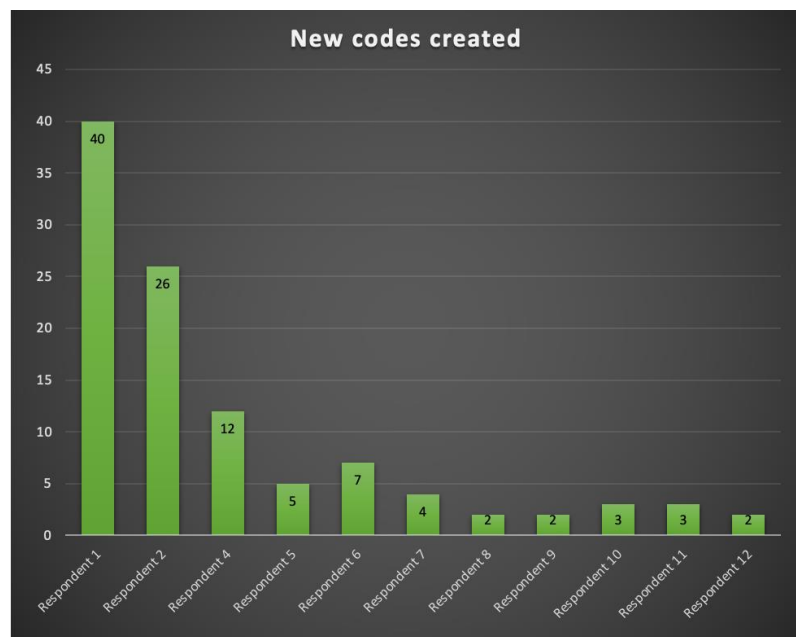


Figure 6: Emergence of new codes and approach to data saturation

saturation was approached in this research and thus sufficient to provide credibility of its findings (B. Saunders et al., 2018).

4.12 Quality controls

Recording eliminates the need for notetaking which ensures that the interviewer can probe systematically and exhaustively. In this research, interview recording eliminated the possibility of the researcher reinterpreting the interview data (Sanders, 1982). Therefore, the recording of the interviews ensured the integrity and quality of the interview data.

Additionally, although qualitative research is rich and characterised by the potential for discovery, it has been critiqued as lacking in scholarly rigour (Gioia et al., 2013). Moreover, qualitative research is characterised by methodological differences which further impact its credibility (M. Saunders & Lewis, 2018). To mitigate this, the researcher followed a research method that has been widely used and acceptable for qualitative research to ensure that the results are rigorous and credible.

Moreover, the field of study is at its infancy with varying definitions of those experiencing the phenomenon under study (Antolin-Lopez et al., 2019; Dhahri & Omri, 2018; Gast et al., 2017; York et al., 2016), the researcher defined eco-entrepreneurship in the context of this research to limit ambiguity and the carrying of such ambiguity into the sampling and data collection processes.

Furthermore, the researcher scheduled sufficient time to conduct the interviews, ensuring that participants had a clear understanding of the questions and that the interviewer could verify the meaning of the feedback (M. Saunders & Lewis, 2018).

Lastly, the researcher conducted all the interviews to manage and limit interviewer bias. The interviewer also avoided the use of tonal variations and non-verbal cues to further limit interviewer bias (M. Saunders & Lewis, 2018). Interviewer bias was further managed using accurate transcriptions of the interviews and the following of a systematic approach to data analysis.

4.13 Validity and reliability

The validation and reliability step in qualitative research seeks to confirm or check the accuracy and credibility of the researcher's findings (Creswell, 2014). Various strategies for checking the accuracy of the findings were used. The first was the clarification the researcher's bias brought into the study (Creswell, 2014). The second strategy was the use of triangulation through the use of two member checks with study participants to evaluate the validity of the themes that emerge from the study (Creswell, 2014). Furthermore, consideration was given to data construction (Vehovar et al., 2016),

transcription (Creswell, 2014), credibility (Eldh et al., 2020), dependability (Eldh et al., 2020), transferability (Eldh et al., 2020) and confirmability (Eldh et al., 2020) as presented in Table 4. These strategies were understood to be sufficient to bring credibility to the study and improve trust in its findings.

Table 4: Summary of data verification applied in this study

Facet	Description	Application in study
Data Construction	Vehovar et al. (2016) suggested that non-probability samples be shaped to reflect as much the population as possible through diversity. The research questions must be designed to promote unstructured responses for greater insight as McCracken (1988) suggested	The respondents were selected from different sectors within the environmental business market. The research questions allowed for unstructured responses where respondents could relate their answers to their own practical experiences
Transcription	Data must be transcribed for coding and later analysis (Creswell, 2014)	All interviews were transcribed and later used in ATLAS.ti for developing the codes which have been used to identify the research themes
Credibility – Triangulation	<i>“The logic of triangulation is based on the premise that no single method ever adequately solves the problem of rival explanations”</i> (Patton, 1999, p.1192)	The use of expert respondents to refine the categories and themes developed in the data analysis stage
Credibility – rich descriptions	<i>“Presenting authentic citations of what informants have uttered has become the “gold standard” in qualitative studies, and most people who read such papers and reports expect that there will be a number</i>	This chapter uses direct quotations from the interview transcripts to substantiate the codes, categories and themes developed, providing credibility to the study.

Facet	Description	Application in study
	<i>of such quotations” (Eldh et al., 2020, p.2)</i>	
Credibility – member check	<i>“Use member checking to determine the accuracy of the qualitative findings through taking the final report or specific descriptions or themes back to participants and determining whether these participants feel that they are accurate” (Creswell, 2014, p.251)</i>	The themes developed as part of the data analysis process were then discussed with respondents, 1 and 4.
Dependability	<i>“Focuses on the process of conducting the study, making it possible to follow its audit trail. The product/data should also be examined, in addition to discerning whether the records are accurate, providing an acceptable baseline” (Eldh et al., 2020, p.2)</i>	The methodology chapter described all the steps followed to undertake this research with this chapter indicating the details of the respondents and indicating the omission of respondent 3 from research analysis
Transferability	<i>“Is about generalization from case to case or group to group, addressing whether the findings apply to another context” (Eldh et al., 2020, p.2)</i>	The research process followed has been extensively documented in chapters four and five to including an extensive description of the problem in chapter two to allow for transferability to similar contexts
Confirmability	<i>“Confirmability includes judgement about the appropriateness of the labelling of themes or categories as well as the quality of the analysis</i>	This chapter presented the data collection process, the sample and tables indicating the codes used and the

Facet	Description	Application in study
	<i>and how the findings fit the data"</i> (Eldh et al., 2020, p.2)	associated themes generated from those codes, this strengthens the confirmability of the research
Ethicality	<i>"Principles of research ethics ask that researchers avoid harming participants involved in the process by respecting and taking into account their needs and interests"</i> (Flick, 2009, p.36)	All participants were provided with a consent form to sign which detailed the study and sought to clarify their rights of refusing to answer any of the interviewer's question or stop the interview at any moment. Ethical clearance was obtained from the research committee and appended in this report.

4.14 Limitations

Eco-entrepreneurs were asked about how they balance their economic and environmental goals in their organisations. The entrepreneurs were required to remember details around their activities and their decision-making processes which may have been limited to the extent of their recollection, leading to the potential for exclusion of some details during the interviews.

This field of study is new with limited consensus on the definitions of eco-entrepreneurship (Antolin-Lopez et al., 2019; Dhahri & Omri, 2018; Gast et al., 2017). Therefore, developed theories can only be related to the current definition used in this research and may not apply to any other definition that may surface and become the preferred definition in future research.

The online interview process requires that those participating in the research are literate in the use of information technology platforms and that they have good internet access which may lead to unintended exclusion of participants who lack the above from the study. This may further limit the extent of diversity within the sample. The online interviewing process will allow for the research to be unbounded by geography, however, the nature

of a qualitative study and the limited number of total participants, do not allow for statistical generalisation of results to the entire population (M. Saunders & Lewis, 2018).

Moreover, the interviewer has a vested interest in the environmental field of study. This implies that the interviewer has strong views with existing biases that might influence the quality of the data collection process, especially where the interviewer questions convey personal beliefs and opinions about the study area (M. Saunders & Lewis, 2018).

Chapter 5: Results

5.1 Introduction

This research was undertaken to understand the dilemma that has been posited by recent research to plague eco-entrepreneurship. This dilemma is the paradoxical goals that arise due to the inherent conflicting objectives of this type of entrepreneur. The goals dilemma arises due to the nature of this entrepreneurship. On the one hand, these entrepreneurs must earn profits for their businesses on the other, must earn income in a manner that protects or reduces environmental harm. The environmental market failures of the past century have pointed to one aspect, the existing known capitalist system does not consider the environment as an important aspect of doing business. This system was not built with environmental concerns as part of its core aspects, hence the ecological challenges relating. Eco-entrepreneurship is concerned with both the ecological environment and the economic environment. The literature, therefore, posited that these goals are inherently paradoxical and view them as competing in nature.

Furthermore, this research established, earlier in the literature review phase, that eco-entrepreneurship is a young area of research with no consensus on the correct term to use when referring to this type of entrepreneur. The literature section further demonstrated the academic and business need for establishing how these entrepreneurs overcome the trade-offs that are known to exist between their economic and ecological objectives. The nature of the environmental market failure that eco-entrepreneurship seeks to correct is vast and wide-reaching. With no respect for men created country borders, these challenges ever become so complex. So complex that they meet the criteria for categorisation as grand challenges. The resolution of grand challenges, by definition, requires the collaboration between numerous countries, organisations and institutions which Freeman (1984) refers to as stakeholders. Therefore, stakeholder theory was used as the theoretical lens for studying this phenomenon.

To study the phenomenon, phenomenology was chosen as the most appropriate research strategy. In this regard, semi-structured interviews were conducted with 12 respondents, however, 11 respondents were taken forward to the analysis stage due to a technical error in the recording of respondent three's interview.

The respondents represented actors who actively balance the economic and ecological trade-offs in eco-entrepreneurship. The respondents are in decision-making roles of their organisations, they are responsible for the sustainability of the businesses they represent.

The organisations represented by the respondents varied, from waste management companies to environmental consultants, manufacture of green products and recycling companies.

This chapter provides a description of the study sample. The interview data is then presented in the form of codes and the resultant themes to support the discussion presented in Chapter 6. The results are then delineated by each research question with associated supporting quotations from the interview transcripts where relevant.

5.2 Study sample description

The study included 12 respondents with whom semi-structured interviews were conducted. The respondents' names have not been included in the study to ensure the anonymity agreed upon before the interview process. Respondent three's interview was not included in the analysis stage due to a faulty recording where the full transcript of the interview could not be obtained. Respondents that were part of the interview process are indicated in Table 5. The respondents' associated positions and their experience within their organisation have been highlighted to demonstrate their relevance to this study. Respondents 1 and 4 were included as part of the member check group.

Table 5: Study respondents – description and background

Respondent	Background information
Respondent 1	A manager of operations at a waste management company, responsible for the financial and environmental performance of various operations within the company. This respondent is responsible for the South African activities of this organisation.
Respondent 2	Worked in South Africa for various environmental businesses. This respondent now manages their own eco venture that is based in the Democratic Republic of Congo, focusing on the mining industry as its main client.
Respondent 3	Professional environmental management scientist now turned entrepreneur focusing on the management of health care risk waste.
Respondent 4	Director at an environmental consulting company operating within Gauteng, Mpumalanga and Northwest provinces of South Africa.

Respondent	Background information
	The respondent is responsible for managing the company's finances and its ecological convictions.
Respondent 5	This respondent was at some point responsible for drafting environmental policies for South Africa. They went on to join and manage environmental-related initiatives at a municipal level and are now an entrepreneur focusing on training aspiring eco-entrepreneurs and assisting them with funding.
Respondent 6	Founder and managing director of an environmental consultancy firm operating across South Africa. The respondent manages the financial aspects of the business as well as the company's environmental performance.
Respondent 7	The managing director of an eco-consulting firm that operates across the Southern African region, providing environmental services to the private and public sectors. This respondent is responsible for the organisation's financial performance as well as its environmental performance.
Respondent 8	A founding partner at a green iron refinery firm. The respondent is responsible for the financial and environmental performance of the firm, in this regard, they actively make decisions that impact the performance of the firm.
Respondent 9	A founder and managing director of a company that services its clients through measuring their emissions. The organisation is instrumental in determining whether its clients are within the air emissions thresholds set by the policy of various countries within the Southern African region.
Respondent 10	A co-founder of an alternative energy provider. This business focuses on using alternative sources of energy, such as waste, to generate usable energy. This business processes food waste products to produce animal feed products for farming. The

Respondent	Background information
	respondent manages projects from proposal, execution and closeout stages. The respondent makes both financial and environmentally related decisions that impact the business.
Respondent 11	Senior director at a waste management company focusing on providing environmental solutions at the business-to-business level. The director holds several roles, as the commercial director and marketing director. The director is responsible for making decisions around the company's environmental and economic direction.
Respondent 12	A co-founder of a company that started in government environmental policy advisory in The Democratic Republic of Congo. The company has now evolved to include eco-tech services. The respondent is responsible for the success of the business and makes decisions that impact organisational financial performance and culture.

5.3 Research results

5.4 Relating themes to research questions

5.4.1 Research question 1 – *What is the role of stakeholders in economic and ecological objectives development in eco-entrepreneurship?*

This research question explored the role of stakeholders in the development of goals in eco-entrepreneurship, more specifically their economic and ecological objectives. The basis of the objectives that exist in eco-entrepreneurship was explored and insights on the role stakeholders play in the goal-setting process were sought through this research question. The exploration of this question was formulated to further provide insight into how conflicting interests are dealt with in eco-entrepreneurship, providing an early foundation for the understanding of the phenomenon under study. The insights sought through this research question are presented in the following subsections. These subsections are primarily concerned with presenting the data resulting from the thematic analysis process. Table 6 shows the codes that were initially developed and the resulting themes associated with this research question.

Table 6: Themes relating to research question one

Codes/Categories	Themes
1) <i>Deciding goals: Understanding the market</i> 2) <i>Deciding goals: Legislative driven</i>	Business environment scan
1) <i>St: Communities are crucial stakeholder</i> 2) <i>St: Engage all stakeholder</i> 3) <i>St: Importance of stakeholder identification</i>	Stakeholder identification
1) <i>St interest: Establish stakeholder interests</i> 2) <i>St interest: Selfish interest among stakeholders exist</i> 3) <i>St interest: Stakeholder incentives</i>	Understanding stakeholder interest

5.4.1.1 Theme 1: Business environment scan

“And so, in order to not fail, we decided that we needed to do extensive research on the ground to figure out what the conditions really were. So, we could make better business decisions and, and point resource resources properly in, in the right direction. And then, you know, goals developed or, or sort of objectives developed as, as we moved along”. – Respondent 12

The respondents highlighted the importance of conducting an appropriate environmental market scan to understand the orientation of various stakeholders including potential customers. Respondent 9 indicated that one of their objectives was formed based on the market need for specific credibility or legitimacy building affiliation. Therefore, the institutional stakeholders whose responsibilities are the accreditation bodies inform the objectives of the eco-entrepreneur. Moreover, those stakeholders that formulate the policies that legitimise the accreditation bodies, often governments, influence the development of eco-entrepreneurial objectives.

“And one of those objectives was the accreditation was the extension of scope was maintaining ISO 9,001 was obtaining an ECA five-star safety rating. So, those objectives have been achieved. And then another objective we set for ourselves

now is to become an accredited calibration laboratory for the ambient market”. – Respondent 9

Market research further informs the eco-entrepreneur on which goals to adopt. Several respondents emphasised the importance of the regulatory environment in the development of their goals. Respondent 11’s response further emphasised the role played by the regulator in the development of objectives in eco-entrepreneurship.

“So how are objectives defined? Well, strongly obviously on what market need and market need comes from two sides, one legislation, or specifically in the sense waste legislation in our country is driving our changes and driving the changes of need in the market”. – Respondent 11

5.4.1.2 Theme 2: Stakeholder identification

“So, identifying who your key stakeholders are in your business and that each start making sure that you have engaged them, or you understand what type of relationship you need within and managing that relationship is critical. Not only for your sustainability, but could actually give access to growth, and manage poorly can have a very detrimental effect in your business”. – Respondent 11

Stakeholder identification seeks to recognise all those stakeholders that impact or are impacted by business activities. The sample quotation from respondent 11 conveys the importance of identifying stakeholder and how that impact on subsequent stakeholder relationships and therefore, the deciding of organisational goals.

“They’re categorised, and the stakeholders will be their community members, and then there will be government authorities, and then they’ll be NGOs that are looking after the human rights or interests of those communities, because most of these roads, most of this project, especially that are constructed through vulnerable communities”. – Respondent 6

As evidenced by the following and preceding quotes from study respondents, whether the context is internal processes or managing an eco-project for clients, the goals that the eco-entrepreneur needs to adopt, are largely influenced by the stakeholders. Thereby further supporting the supposing of the importance of stakeholder identification in the operation of an eco-business. Communities, government, non-profit organisations, employees and shareholders were seen as some of the important stakeholders impacting goal setting in eco-entrepreneurship.

“For me, I honestly think that it is the guys on the floor because they are the ones that are executing and they are the ones that will be able to give us value so we need to educate them as much as we need to educate our clients so the guys are actually managing the waste and also the executive because we clearly need buy-in from them and that the mission or the vision of the company is clear and they are able to communicate it down”. – Respondent 1

5.4.1.3 Theme 3: Understanding stakeholder interest

“I think that certainly, the entrepreneur is, is always finding ways to overcome barriers. And if they are determined enough, they would find a way over that. So, if the one stakeholder or it isn't the correct stakeholder, then I think you are willing to, to walk away from that. So again, it's about putting the, putting the long-term vision, the business, first on, you know”. – Respondent 8

The importance of identifying different stakeholder interests was highlighted by the different respondents as demonstrated by the direct quotations provided in this subsection.

“We did we had to do a needs analysis of the local communities. That was after doing a needs analysis, we found that this guy's they have a need of toilet solution facilities, water and water and electrification and that is what we prioritise and then after doing that needs analysis, we arrange them in terms of the most important resource”. – Respondent 6

Some respondents highlighted the need to understand certain stakeholders specifically the communities that impact or are impacted by the eco-venture or project. The community interests are said to vary from project or location to location and have a significant influence on which goals an eco-entrepreneur adopts. There was a clear indication that some stakeholder interests can be viewed as unreasonable and therefore could not be satisfied within the scope of eco-entrepreneurship. When these stakeholder interests have been identified where the stakeholder is pivotal to the activity, the activity should be abandoned to ensure that the eco-entrepreneur's values remain uncompromised.

“Some communities will accept more, especially poor people. They will accept any infrastructure coming with the hope that it's going to give them business. They will get like a local contract. They will think, I can get some work when this new development comes, I have a truck, they can use my truck and pay me. I have, you

know, whatever equipment that they can use at the, or during the construction, though it's short leave". – Respondent 4

5.4.1.4 Review – research question 1 results

This section sought to present results that would enable the answering of the research question concerned. The question sought to understand the role of stakeholders in the decision that eco-entrepreneurs make in terms of their ecological and economic goals. The results highlighted firstly that, the identification of stakeholders was an important aspect in eco-entrepreneurship to prevent the adoption of goals that are not aligned with other stakeholders, especially those that may be too powerful for the eco-entrepreneur, thus risking mission drift. Secondly, the stakeholder interests need to be identified and evaluated to adjust the eco-entrepreneur's goals as necessary, failure to do so typically leads to the cessation of business activities or the eco-entrepreneur having to “walkway” – respondent 8. Lastly, some stakeholders create or impact the business environment greatly and therefore, goals in eco-entrepreneurship. By way of example, respondent 9 highlighted the need to acquire an accreditation because of a regulation created need in the environment of business. These results point to the role stakeholders play in the development of goals in eco-entrepreneurship. Eco-entrepreneurs develop their goals and objectives by incorporating all stakeholder interests and evaluating these against their own ecological values.

5.4.2 Research question 2 – How are stakeholder interests incorporated in decision making to ensure the success of eco-entrepreneurship ventures?

Literature recognises that strategy development through stakeholder management will likely involve establishing mutual interests among stakeholders so that the organization can achieve success. This research sought to investigate how eco-entrepreneurs overcome the trade-offs challenge analogous to literature proposals that the establishment of mutual interest thus value creation for all affected and impacted stakeholders is pivotal for success. Therefore, this research question explored how eco-entrepreneurs establish mutual interest among their stakeholders. The ensuing subsections are primarily concerned with presenting the data resulting from thematic analysis. Table 7 shows the codes that were initially developed and the resulting themes associated with this research question.

Table 7: Themes relating to research question two

Codes/Categories	Themes
1) <i>Motives: Ecological agent</i> 2) <i>St interaction: Align values through education</i> 3) <i>St interaction: Communicate risk to all stakeholders</i> 4) <i>St R: Ecological agent</i> 5) <i>St interaction: Eco-entrepreneurs must be mediators</i> 6) <i>St: Consider the environment as stakeholder</i>	Communication
1) <i>St in decisions: Acceptable environmental risk threshold</i> 2) <i>St in decisions: Controlling environmental risk</i> 3) <i>St interaction: Regulation prevent further ecological degradation</i> 4) <i>St interest: Budgeting for ecological risk</i> 5) <i>St interest: Budgeting for punitive ecological measures</i> 6) <i>St: Regulations key</i>	Ecological risk control
1) <i>St interaction: Educate all stakeholders involved</i> 2) <i>St interaction: Educate stakeholders on regulations</i> 3) <i>St interaction: Educate the clients</i>	Education/Mutual learning

Codes/Categories	Themes
4) <i>St interaction: Educate the regulators</i> 5) <i>St interaction: Education precipitated change in orientation</i> 6) <i>St interaction: Education to establish ecological interest</i>	
1) <i>St in decisions: Stakeholder engagement - legislation mandated</i> 2) <i>St in decisions: Stakeholder engagement for long-term economic benefit</i> 3) <i>St interaction: Introduce stakeholders into value chain</i> 4) <i>St interaction: Lost time stakeholder engagement</i> 5) <i>St interaction: Public consultation</i> 6) <i>St values: Establish forums to engage all stakeholders</i> 7) <i>St interaction: Working with stakeholders</i> 8) <i>St R: Stakeholder engagement</i>	Stakeholder engagement
1) <i>St interaction: Frequent stakeholder engagement</i> 2) <i>St interaction: Influence how the regulator spends ecological funds</i> 3) <i>St R: Stakeholder relationship building</i> 4) <i>St values: Establish forums to engage all</i>	Stakeholder relationships

Codes/Categories	Themes
<i>stakeholders</i>	
1) <i>Goals: Implement alternative processes</i> 2) <i>Goals: Innovate to remain ecologically oriented</i> 3) <i>Goals: Innovation</i> 4) <i>LT goals: Break down existing structures</i> 5) <i>St interaction: Good value offering</i> 6) <i>St R assist: Develop collaborative relationships</i>	Value creation/ Perceived value creation

5.4.2.1 Theme 1: Communication

"We enjoy what we do. We do it for the environment. We, again, we still want to continue providing a result to a customer that if he sees he's exceeding his emission limits, I want him to shut down his process, or I want him to have the confidence to go to management to sell it". – Respondent 9

The above quotation demonstrates the extent of commitment of eco-entrepreneurs to ecological issue and their environmental orientation. More importantly, this quotation demonstrates how communication is used in eco-entrepreneurship by providing information in irrefutable forms to establish common interests.

"And we, like I said to you, we, we try and quantify how much oil there is and how much we can extract. And based on that, we can offer a rebate, or we unfortunately have to charge to say, actually, we're not going to extract anything of value from this. So, we have to charge you for treating this and safely managing it. And they would say, okay, fine. Then I'll just go and dump it in a felt somewhere, unfortunately, it's easy to think that it's okay, but it doesn't take long before someone notices the horrible state". – respondent 10

Respondent 10 among other respondents, emphasises the role data plays in establishing a common understanding of the required action. Further highlighted in the quotation is the importance of open communication and negotiation to establish common ground.

“And a lot of, a lot of things can be resolved through effective communication and discussion. You know, as humans, it's hard to have the tough conversation, but it's often how it's conducted, but most people want to do the right thing. And it's important to raise those issues soon”. – Respondent 11

Effective communication was further highlighted as a mechanism for establishing stakeholder interests as demonstrated in respondent 11's reflection above. An important aspect also identified concerning this theme is that of communication to solicit discussions so that stakeholder sway in terms of interests can be followed by genuine commitment. It has been demonstrated that incorporating stakeholder interests is an incredibly difficult process, one which does not always have positive results as demonstrated by the quotation from respondent 10. However, effective communication that is tailored to the particular stakeholder, improves this integration process.

5.4.2.2 Theme 2: Ecological risk control

“To protect the environment so there are measures in place that they put make sure that they may follow up and give you strict restrictions or guidance as to how you are supposed to manage your business or how with the end goal of protecting the environment”. – Respondent 1

Ecological risk control refers to measures that, when implemented, prevent or minimise the ecological impact of business activities. These measures are often set by the regulator or by other stakeholders who may be impacted where subjective effects apply. As demonstrated above and below, respondents acknowledged the role the regulator plays in this regard as well as their incorporating of risk control measures in their businesses.

Respondent 7: *“They are measures that are going to be put in place to at least reduce the extent of the impact of the severity of the impact, even on those households”.*

Respondent 1: *“So, also we are driven by the government legislations and the type of waste prohibited to landfill that also drives or forced us to be innovative and come up with alternative solutions”.*

The regulator is again identified as a key stakeholder in developing and setting the thresholds associated with environmental risk control measures. Further, ecological risk control is seen as another avenue for incorporating stakeholder interests, although this aspect of ecological risk control only includes the ecological aspects of eco-

entrepreneurship.

5.4.2.3 Theme 3: Mutual learning

“So, I think, I think that's where I talk to the education. And so, getting, you know, getting the environmental and economic and social balance right, is, is hard because at the end of the day, waste is a grudge purchase. No company really wants to pay for waste. They're trying to operate as cost effectively as possible. Because they're making something and selling something”. – Respondent 11

This theme was initially identified simply as “education”, however, after checking with respondents 1 and 4 as well as reflecting on the meanings of the themes used, this theme was updated to mutual learning to reflect the process of learning in eco-entrepreneur. Respondent 11 among others highlighted the importance of education in understanding the various points of view which later inform decision-making.

“So, so what actually happened is we actually had a van with four community leaders drove into the premises and we sat and obviously they came in high spirits in terms of anger and frustration because they felt we were doing something illegal and we were then able to explain and even give contact details of the municipal officials who had requested us to do that. So after, you know, a couple of minutes, they soon realized that, oh, okay”. – Respondent 10

As reflected in the direct quotations above and below, mutual learning plays a key role in the incorporation of stakeholders to decision making. This mutual learning occurs in different ways. Firstly, the eco-entrepreneur may wish to educate stakeholders, for example, community stakeholders as reflected in respondent 1 quotation.

Respondent 1: *“Continuous education because the other way too to minimize waste is for us to educate our clients on how to better manage their waste for example separation at source, so that is the other way that they can be able to minimize waste or get value or be more efficient when it comes to them managing their waste”.*

Respondent 2: *“So now, because the government maybe is informed by what's happening outside the country, they come back and want to enforce without proper understanding as to what the needs of the mining companies are, you're not understanding”.*

Secondly, the eco-entrepreneur may need education around understanding the market and available opportunities, as respondent 2 reflected. Thirdly, the eco-entrepreneur may need to learn or be educated by other stakeholders such as community stakeholders, as reflected by respondent 10. Lastly, the regulator may need to learn from other stakeholders to formulate the most appropriate and contextual policies for effective market creation.

5.4.2.4 Theme 4: Stakeholder engagement

Stakeholder engagement was identified as a relevant theme as a determinant for stakeholder interest incorporation in decision making. Respondents highlighted, as reflected in the quotations that follow, the importance of stakeholder engagement in a meaningful manner.

“So, what I do is we do a stakeholder engagement, whereby we engage all the stakeholders interested, those who are interested in those that are affected. And then we tell them about the project”. – Respondent 6

The stakeholder engagement process allows for the surfacing of stakeholder interests as well as how these interests might be incorporated into decisions (as highlighted by respondent 10).

“As you would imagine, compost doesn't smell terribly good. So, then we explained to them what was going on, that we didn't just wake up and decide to do that we were requested. So, they then went to the municipality and said, but why are you asking these people to do this here? And I, since then we were requested to stop. So, we did because we would, we do consider community valuable, you know valuable to our business as well”. – Respondent 10

Contrary to the results presented above, respondent 2 intimated that stakeholder engagement came with challenges. The time often required in eco-entrepreneurship stakeholder engagement may never be recovered in terms of economic returns. The eco-entrepreneur will often invest their time with no guarantee that the process will eventually yield beneficial outcomes.

“So when you are engaging in a very small team when you're engaging in all these negotiations, there is a loss of tangible time and income, that and things sometimes go accordingly, you know, they don't go according to plan, you find that you spent three months trying to be again, a mediator between the affected parties, all of

them don't agree, then you've wasted, you know, you've wasted time. So, this has been the biggest challenge". – Respondent 2

Respondents expressed the need to engage stakeholders toward making them happy as demonstrated through respondent 8's explanation below. Stakeholder interests are incorporated by making decisions that satisfy the stakeholder interests identified through the stakeholder engagement process.

"So, making sure that your staff is happy. So, if your staff, if you can keep your staff happy means you're probably having income and you're able to pay their wages which means your businesses should be relatively strong". – Respondent 8

5.4.2.5 Theme 5: Stakeholder relationships

"So, now what we have done is that we have formed a say a working group, in order for those taxes to be directed into projects that we are developing. So, it means that the government, us as the private sector, and the mines will all have a stake in the projects that we are trying to do. Now, that means that everybody is going to be held accountable for the role that they play". – Respondent 2

The respondents stressed that the relationship an eco-entrepreneur has with stakeholders determines whether stakeholder interests are successfully integrated into the business or not. There are collaborative relationships as respondent 2 alluded to, where various stakeholders build relationships with accountability as a common anchoring value. Therefore, collaborative relationships among stakeholders enhance the integration of their interests into the eco-entrepreneur's activities.

"You know, again, we know that our customers that we want to deal with the responsible polluters and the responsible polluters is happy to pay an additional fee for an accredited service that he can rely on". "And we've got those relationships with our customers, and I think we've built it to the extent that our company is mature enough to go and have a mature conversation with the likes....". – Respondent 9

Stakeholder relationships further assist in building an understanding around the perception that eco-entrepreneurship services or products are expensive. By building strong relationships with their customers, eco-entrepreneurs can gain and retain market share, as respondents 9 and 10 reflected.

"But you know, one of our relationships as well is with a bigger waste recycling

company and, you know, they, we, we have regular conversations over, they come to us now in terms of, okay, we have this waste, can you do anything with it? So, it's again, it's forcing us as well to sort of improve our service offering". – Respondent 10

5.4.2.6 Theme 6: Perceived value creation

The researcher initially identified this theme as simply “*value creation*”, however, during the member check process, a debate ensued around whether this is reflective of the meaning. Ultimately, upon reflection, the researcher changed this theme to the current. The previous theme was limited in its meaning and excluded some of the issues associated with the subjective quantification of value. Therefore, the current theme as named prevails as the more appropriate identifier for this explanation.

Study respondents indicated that the value created by eco-entrepreneurs is often perceived only in economic terms. The job of the eco-entrepreneur is, therefore, to provide enough perceived value to satisfy concerned stakeholders. This suggests that the perceived value created is likely to align all stakeholder interests, or at the very least, the perceived value should be sufficient to achieve stakeholder satisfaction.

“So, where we sit as a business and what it is that we do, we are literally a grudge purchase for a mining company. Because what the value that we add is not a short-term, it's in the long term.....Why should I pay someone who's going to tell me that, after I've produced this copper, watch all the products that you have used, you need, you know, at the end of the production, you have generated this type of waste, and therefore, this needs to be disposed of in a certain way, and I still have to pay for that proposal, they don't get you to know, that's the challenge of it”. – Respondent 2

Furthermore, as demonstrated by respondent 2 quotation above, the value that eco-entrepreneurs provide is often long-term with no immediate returns for their clients. This arises due to the lack of appropriate measurements of value creation in sustainability activities. Institutions can help legitimize the value that eco-entrepreneurs provide by regulating the services that eco-entrepreneurs provide to the marketplace, thus providing legitimacy. This supposition is reflected in the following response provided by respondent 9.

“And the reason for that is just based on, based on quality. And then that we've got

certain accreditation schedules in place as well, that is why we're still in business".

– Respondent 9

5.4.2.7 Review – research question 2 results

As demonstrated in this section, respondents provided valuable insights into how stakeholder interests are integrated into their businesses. The data collected relevant to this research question suggested that an eco-entrepreneur needs to be discerning of optional stakeholders that they involve in their business to avoid mission drift. Through ecological risk control, eco-entrepreneurs can incorporate interests associated with stakeholders that represent the environment, stakeholders such as the regulator, NGOs and communities. Mutual learning was identified as an important theme in answering this research question. According to the respondents, it would be naïve to assume that the eco-entrepreneur knows all that is associated with ecological protection. Analysis of their responses showed that mutual learning was the most appropriate approach to education in eco-entrepreneurship. Furthermore, stakeholder engagement emerged as a theme in answering this research question. In seeking to integrate stakeholder interests into decision making, stakeholder engagement is seen as a precursor to that. This stakeholder engagement led to the second last theme discussed in this section, stakeholder relationships. The relationship the eco-entrepreneur has with stakeholders, determines the success of stakeholder interest integration. Lastly, this section identified perceived value creation as one of the themes relevant in the quest to answer this research question. The respondents viewed value creation in eco-entrepreneurship as subjective. This refinement came during the member check process. It is demonstrated that enough data was collected to spark arguments grounded in data toward answering this research question.

5.4.3 Research question 3 – Which elements of stakeholder role contributes positively to overcoming these ecological and economic trade-offs?

This research question sought to establish whether some aspects of stakeholder role are more beneficial in overcoming the trade-offs under study. Eco-entrepreneurship is a multidimensional concept with many underlying constructs, therefore, the relationships that the eco-entrepreneur establishes with their stakeholders may be equally complex with some impacting positively their goals dilemma, some impacting negatively. Therefore, the collected data were analysed concerning this question with the identified emergent

themes presented in

Table 8: Codes and themes relating to research question three

Codes	Themes
1) St R assist: Open communication among stakeholders	Communication
1) <i>St in decisions: Importance of transparency</i> 2) <i>St interaction: Establish trust among stakeholders</i> 3) <i>St R: Establish credibility</i> 4) <i>St R: Stakeholder accountability</i>	Trust
1) St assist: Encouraging regulator 2) St assist: Market created by government legislation 3) Specific St D: Enforcement of regulations 4) St assist: Government enforcing ecological protection 5) St assist: Importance of licensing 6) St assist: Weak stakeholders protection from government 7) St assist: Regulations leading to innovation	Ecological legislative framework
1) St assist: Importance of consumer pressure 2) St R assist: Stakeholder compromise 3) St R assist: Stakeholder negotiation for ecological protection 4) St R: Influence stakeholder relationships 5) St values: Investors must have aligned values	Common interest
1) St assist: Community buy-in through education	Stakeholder incorporation in strategy

Codes	Themes
2) St assist: Leverage strong stakeholder relationships	
3) St assist: Strategic use of weak stakeholders	
4) St in decisions: Consider stakeholders in decision making	

5.4.3.1 Theme 1: Communication

“Then we had to go to the government and say government there are two solutions here we are not able to manage the waste in a cost-effective manner and then client opted for a landfill solution which is a cheaper solution. How about we slightly increase the threshold, what is the impact what is the environmental impact, compared to their environmental impact for us to dispose of the waste at the landfill”. – Respondent 1

Communication was once again identified as a key theme, only now it is related to a research question that seeks to surface insight as to which elements of stakeholder role contribute positively to overcoming economic and ecological trade-offs in eco-entrepreneurship. The communication reference here is when all stakeholders communicate openly with each other. The eco-entrepreneur needs to be able to approach, for example, the regulator and discuss challenges they experience in implementing the regulator’s ecological policies. This aspect of communication is demonstrated by the sample interview quotation from respondent 1 above.

“For example, on that project, particularly, we have a stakeholder meeting with the council and African community leaders every month we sit so that we see where the issues that arise and then we have forums where we sit with affected authorities. And then we have bi-annual meetings, whereby we engage with the NGOs that are interested in the project, who are looking after the community”. – Respondent 6

Respondent 6 highlighted an important aspect of this communication process, where all stakeholders participate in frequent communication to share ideas with all stakeholders in real-time. Since eco-entrepreneurship is still a relatively new concept, continuous communication helps establish commonalities among stakeholders and improve their

cooperation.

“There's a lot of new people in there, but we've maintained a relationship. And I think if, if I can talk about the relationship, it's also one of our key pillars in terms of organization is to maintain and build those relationships with our customers. It needs to be an open and honest, transparent conversation. We do make mistakes. So, if we make a mistake, we need to be able to go out there and say to a client, for example, we've made a mistake, the client needs to have the same”.

Respondent 9

Respondent 9 emphasised the role of communication to maintain stakeholder relationships. More specifically highlighted in the above response is the element of honesty as a driver for maintaining stakeholder relationships in eco-entrepreneurship. The importance and relevance of communication were further highlighted by respondent 10, with an emphasis on its role in working toward stakeholder interest alignment. This element of stakeholder inclusion into an eco-entrepreneurship decision-making process is a strong case for consideration as a positive element of stakeholder participation in eco-entrepreneurship.

“I don't think they've ever not aligned because we, for we're in a position where we hold the licenses, we need to do what we do. You know, I, I don't think they do a terribly good job, however of communicating changes you. So as long we are all reasonable in terms of you know, communication, then everyone's aligned”. –

Respondent 10

5.4.3.2 Theme 2: Trust

“So those misalignments have been, the mitigation of those misalignments have been, we we've immersed ourselves, in the culture of where we're operating our business, you know, as a system stays the same meaning we will not break the law, we will not, we will not do things that will compromise our reputation, the reputation of whomever it is that we bring to the table, meaning our investors”. –

Respondent 2

Trust, as shown in the sample quotations presented in this subsection, was one of the important aspects of running an eco-entrepreneurship venture. Contributing to negative ecological effects could have a significant bearing on the going concern of a business. Eco-entrepreneurs often carry the responsibility of ensuring that the services they provide

to these businesses are credible and trustworthy. Respondent 2 alluded to the importance of this aspect for stakeholder relations as well as future business opportunities (referencing to investors).

Respondent 9: *“We do have a confidentiality agreement with our customers. So, whatever we measure, we report to them when we keep it to ourselves”.*

Respondent 6: *“So, I got bought and then moved to environmental management because it's quite diverse with the legal accountability on it”.*

Eco-entrepreneurs use measures such as legal confidentiality contracts as indicated by respondent 9, they establish trust through normal social interaction and using policies as reference reinforcement for the positions they take on matters under dispute or discussion. Where there is trust among stakeholders the aspects of aligning stakeholder interest should also be eased, further supporting the answering of this research question.

5.4.3.3 Theme 3: Ecological legislative framework

“They need us to, to be able for them to, to go ahead with some operations, they see us as a grudge purchase, wherein, they're forced by the law to, to actually come to us, to offer service for them, for them to be compliant”. – Respondent 4

As demonstrated by the interview sample quotations in this subsection, the role of the regulatory environment cannot be overemphasised when studying eco-entrepreneurship. The regulations create a market for some eco-entrepreneurs to thrive as evidenced by the quotation from respondents 4 and 9.

“Okay. So that's very much government driven if it wasn't for the, for those licenses. I don't know anyone in the country would care about pollution, unfortunately, because then you can make a lot more money. Okay. That's a downside to it. So, it is regulatory based”. – Respondent 9

Environmental policies were also said to encourage innovation among industry actors as they seek alternative solutions to the existing ways of adding value into the marketplace, respondents 1 and 8 quotations have reference.

Respondent 1: *“I guess when it also comes to, I will say maybe your carbon tax for example so that is where the government is forcing companies to be innovative so when you if you're more innovative that you won't be paying the tax”.*

Respondent 8: *“So that's definitely something that we deem and we work with a number of European companies where their legislation is more enforced and it actually forces them to seek innovations, new ways of doing it and looking for business. So, although in the short term left of their economy a little bit reluctant, a little bit concerned about the, the backlash that may happen”.*

However, the role of the regulator has been criticised. Firstly, where there is a lack of enforcement of the regulator's environmental policies, an imbalance can be created in the marketplace. Those who wish to comply with environmental policies may invest in activities aligned with the requirement to comply. However, lack of enforcement leads to their products or service offering being too expansive for the marketplace, potentially leading to organisational failure, respondent 9's quotation below has reference.

“So, now I have experienced negativity with the relationship with the regulator in that in 2015, 1st of April, the legislation came into effect that detail that any company doing stack sampling or any environmental services in South Africa should be an accredited for 1705. It was April 1st, 2015. We got involved with a regulator. Subsequently to that we got accreditation. And as we stand to date, having a good relationship with a regulator and saying to them, when are you enforcing the accreditation and them saying, well, they don't know they can't enforce it. It, that for me is a negative because we invested quite a bit of money and quality managers and PT schemes”. – Respondent 9

These results support the case of regulations as a strong element of the role of stakeholders in the overcoming of economic and ecological trade-offs in eco-entrepreneurship. However, the regulatory environment must be created along with the implementation of enforcement mechanisms.

5.4.3.4 Theme 4: Common interest

“Environmental protection I think the driver should be environmental protection striking a balance on the ecosystem so should the goal be similar all the stakeholders have same goal then everything all solutions that we develop back in our minds or at the forefront it will be Environmental Protection so all these stakeholders their mission or the goal is Environmental Protection and sustainable sound solutions”. – Respondent 1

Respondent 1 stressed the importance of alignment in goals or interests among stakeholders in eco-entrepreneurship, as shown in the sample interview quotations presented in this subsection. Interests or goals around ecological protection or preservation were highlighted as those most important. When all stakeholders have a shared goal in terms of ecological issues, then their collaboration would likely revolve around the generation of economic value within their common ecological value system. In this way, eco-entrepreneurs would successfully balance the economic and ecological trade-offs inherent to eco-entrepreneurship.

“And then also, these mining companies, they might be commodities-based, but they are international companies. Some of them are listed in the stock exchanges, London Stock Exchange, Joburg, staples, strange New York Stock Exchange, so it is very crucial for them to have environmental policies”. – Respondent 2

To establish these common interests, respondent 2 highlighted the importance of societal orientation toward sustainability. Indicating the societal pressure that publicly traded companies may feel toward adopting sustainable activities. This further surfaces insights around the importance of transparency as these companies are often required to report on sustainability-related value creation as part of their financial reporting. Therefore, eco-entrepreneurs may rely on other stakeholders that are, perhaps, not direct stakeholders of the eco-entrepreneur, but stakeholders of the eco-entrepreneur stakeholders. In this case, societal pressure on listed companies may yield benefits for the eco-entrepreneur through alignment of ecological goals resulting from the societal pressure.

“Well, it's not terribly hard to convince them to do what's right. When you go to them because of the law people can go to jail, right. Or have massive fines imposed upon them. So, no one wants to find themselves in that kind of position. And you know if they insist then we simply walk away”. – Respondent 10

In establishing common interests, respondent 10 alluded to the use of the policy environment to convince stakeholders with diverging ecological interests, with the avoidance of punitive measures as the common interest. Punitive measures would often be imposed on those contravening the prevailing environment laws, therefore, establishing interests that seek to avoid these measures would inadvertently align to the eco-entrepreneur's ecological interests. However, this sample quotation also introduces the idea that when stakeholder goals do not align, the eco-entrepreneur most often has to ‘walk away’. This notion suggests that issues sustainability the eco-entrepreneurs seek to resolve, remain unresolved as long as the stakeholder interests do not align. Luckily,

responded 12, for example, suggested another approach that involves finding the pain points of stakeholders and seen to exploit those for establishing common ground.

“When the values of our stakeholders do not align with ours, we find ways where we could sort of touch on pain points that bring us together for a, for a common objective. So, there's always a pain point with a stakeholder that can serve an aid. Your objective, you really just have to find it. Sometimes you can't, you can't convince stakeholders about your particular core values. That's, it's a very difficult thing to do. This world is very diverse but there's always a pain point that you can go and look at to exploit that would then you know, have stakeholders join you on the road to, to, to reaching your objectives”. – Respondent 12

5.4.3.5 Theme 5: Stakeholder incorporation in strategy

“So, then we consider who is our customer? What relationship do we have with a management team? And if we are successful with this customer, would we be able to gain more of the you know, services that we could service them and, and help them? So that would be the one part in terms of the question. So, I would say, yes, we do consider them. We do not consider the in each and every stakeholder you know”. – Respondent 9

The last theme to this research question relates to the incorporation of stakeholder interests into eco-entrepreneurship strategy. Respondent 9 reflected that whether it is for the purpose of gaining more market share or for the purposes of maintaining good relationships, stakeholders need to be incorporated into the strategy of an eco-entrepreneurship business.

“I will make an example, when you need authorization run a landfill, you need a buy in from the community, from the government and the industries around where you will be operating your landfill”. – Respondent 1

Respondent 1 intimated that the influence and impact of stakeholders should be incorporated in decision making at the planning phase. Respondents 6 and 10 elaborated that, important stakeholders could be used to sway other stakeholders to adopt the eco-entrepreneur's values. The concept of incorporating stakeholders in eco-entrepreneurship strategy could see the issues discussed in preceding sections, where the establishment of common interests proved difficult, resolved. To close this section, a reflection from respondent 6 is presented in the quotation that follows. This reflection introduces the

aspect of prioritising stakeholders and evaluating which are most important for the eco-entrepreneurship success and seeking to achieve alignment with those stakeholders.

“Because when we analyse our, after identifying our stakeholders, something that changes we do, we assess them in terms of the most important a stakeholder, what can have a greater impact on the sustainability or the progress of the project”. –

Respondent 6

5.4.3.6 Review – research question 3 results

This section to requestion 3 began with the description of this research question and the insights it sought to surface. Respondents identified that open and honest communication among stakeholders was pivotal for success in eco-entrepreneurship. Stakeholders that are open and honest in their communication are said to allow for the exploration of alternatives when seeking sustainable solutions.

The regulatory environment was identified as another crucial element and that the responsible stakeholders should seek to create a consistent environment and enforce all promulgated regulations to avoid market imbalances. Further highlighted in this section, was the importance of establishing common interest among stakeholders. The respondents highlighted the need for stakeholders to align in terms of their ecological interests. Furthermore, it was established that the eco-entrepreneur is often burdened with the task of establishing common interests around ecological factors. Lastly, stakeholders should not be viewed as secondary role players, but rather should be incorporated into the eco-entrepreneurship strategy to ensure that these businesses are positioned appropriately in the marketplace. This subsection concluded the discussion of the results focused on research questions, providing enough data grounded evidence to begin answering the research.

5.5 Conclusion

The research findings presented in this chapter demonstrate the depth and insight achieved during the interview process. Study respondents provided sufficient insight to answer the research questions. The member check and expert interview provided for further refinement of the themes providing for clarity in the emergent themes. The findings presented in this chapter provide a foundation for the ensuing discussion into the meaning of the finding considering existing theoretical concepts.

Chapter 6: Results discussion

6.1 Introduction

This research report has thus far covered the introduction to the study, introduction to the identified problem, the literature associated with this problem, the related research questions, the methodology the study adopted and a discussion of the results obtained. There has thus far been no attempt at examining the results in relation to the literature discussed in chapter 2. This chapter fills this gap by discussing each research question results in relation to the literature reviewed in chapter 2.

6.2 Research question 1 – What is the role of stakeholders in economic and ecological objectives development in eco-entrepreneurship?

This research question sought to understand the role of stakeholders in the decision that eco-entrepreneurs make in terms of their ecological and economic goals. The results highlighted firstly that the identification of stakeholders was an important aspect in eco-entrepreneurship to prevent the adoption of goals that are not aligned with some ‘*unknown*’ stakeholder, especially those that may, upon discovery, prove too powerful for the entrepreneur. Secondly, the stakeholder interests need to be identified and evaluated to adjust the eco-entrepreneur’s goals as necessary. Lastly, some stakeholders create or impact the business environment greatly and therefore goals in eco-entrepreneurship. The themes identified under this research question are discussed in the following subsections.

6.2.1 Theme 1: Business environment scan

It has been demonstrated that eco-entrepreneurship is a multidimensional construct with economic and ecological logic presenting as the most dominant (Jiang et al., 2018; O’Neil & Ucbasaran, 2016). The study results show that the ecological logic is largely accounted for by the regulatory environment. Entrepreneurs used the regulatory environment to develop their goals. Since the regulatory environment takes care of the ecological aspects of eco-entrepreneurship, the goals the eco-entrepreneurship is concerned with are often economic.

Although the economic and ecological goals are expected to occur simultaneously, this research finds that the results show that the eco-entrepreneur can set only the ecological goals, however, these are largely guided by the prevailing regulatory environment. Since governmental institutions are often responsible for developing and setting these

regulations, the government is a role player in the development of goals in eco-entrepreneurship (Schaltegger et al., 2019). The results presented in this study show that institutions have the power to legitimise certain activities in eco-entrepreneurship. This finding is aligned with the current understanding of institutions as market creators (Potluri & Phani, 2020). Similar to this research's findings, institutions can create market demand for eco-friendly products and services through strategically developed and implemented policies (Ball & Kittler, 2019). Institutions, therefore, play the role in creating centralised and decentralised policy frameworks which can reshape an existing marketplace or create a new marketplace. Issues of sustainability are still considered developmental. Therefore, institutional policy is likely to lead to the establishment of new marketplaces and industries.

This research, therefore, suggests that the role of the regulator in eco-entrepreneurship goals development is that of providing regulations that promote eco-friendly activities while discouraging further ecological degradation. The eco-entrepreneur can then focus on setting goals that will yield economic benefits thus ensuring the sustainability of their businesses within the current market structure.

6.2.2 Theme 2: Stakeholder identification

Although eco-entrepreneurship ventures are created to solve the many prevailing ecological challenges, the ventures need to still create value for all stakeholders involved. These businesses need to understand each stakeholder and the associated relationship (Freudenreich et al., 2020). They then need to design their business proposition in a way that creates value for each stakeholder, with the expectation that the stakeholders will, in turn, support the business venture in the achievement of these objectives (Schaltegger et al., 2019). The study results demonstrated that an eco-entrepreneurship business can receive support or can be impacted by multiple stakeholders who may or may not have a vested interest in the business. Then the study results emphasised the need for clearly identifying these stakeholders.

Freeman et al. (2010) supported by Christ et al. (2018) recognised that stakeholder identification was an important stage for stakeholder management. Stakeholder identification is said to be an important stage in the quest for executives to understand their obligations to various stakeholders. Another aspect is that the business has to ensure that it can predict and reasonably manage any impact that stakeholders may have on their businesses (Freeman et al., 2010). The study respondents supported this view and recognised through recollecting real-life business situations where the stakeholder had been impacted or have impacted the organisation. This study recognises the importance

of the stakeholder identification stage in eco-entrepreneurship and the role this stage plays in objectives development in eco-entrepreneurship.

6.2.3 Theme 3: Understanding stakeholder interests

According to Freeman et al. (2010), stakeholder theory advances ideas of value creation and trade. They, supported by Hörisch et al. (2014) and Freudenreich et al. (2020), suggest that businesses should consider all stakeholders in decision making and strategy development. Further suggested is that the integration of varying stakeholders for value creation, imply the merging of stakeholder interests to one interest, that of value creation. The study respondents identified that the identification of stakeholder interests was an important aspect of their eco-entrepreneurship ventures.

Although Freeman et al. (2010) and Freudenreich et al. (2020) suggest that stakeholders focus on value creation as a common interest, the results from this study suggest that stakeholder interests may indeed vary. The nature of eco-entrepreneurship businesses is that the value created may not be valued to the same degree by all stakeholders. Therefore, the perceived value challenge presents the divergence. This builds a case for investigating how value creation in eco-entrepreneurship should be communicated and defining that value more conceptually to eliminate any subjectivity. Thus, eliminating the need to abandon projects that generate value for society and the environment, where a particular stakeholder does not recognise the value.

6.2.4 Conclusion to research question 1 results and discussion

In conclusion, the role of stakeholders in eco-entrepreneurship goals development stems from different aspects of stakeholder theory. Stakeholders that impact or control changes within the business environment are understood to influence decision making in eco-entrepreneurship. Institutional policies directly affect related marketplaces. The business environment directs eco-entrepreneurial goals. Eco-entrepreneurs make economic and ecological decisions based on prevailing institutional policies. Thus, institutions, such as governments, influence eco-entrepreneurial goals.

Furthermore, the study found that stakeholder identification has a significant impact on the goals an eco-entrepreneur develops. If a stakeholder has not been identified, the stakeholder would not be considered in organisational goal development. Lastly, stakeholder identification precedes the identification of stakeholder interests to develop goals around these interests. Figure 7 shows the relationships between these aspects and the development of objectives in eco-entrepreneurship. The connecting lines in *Figure 7*

represent the stakeholder influence as appropriate for each of the aspects shown. Stakeholders that impact the business environment are seen to be influencing the likely identification of other stakeholders and the understanding of their interests which ultimately impacts on the eco-entrepreneur's goals. By way of example, the regulatory body may develop regulatory frameworks that impact the business environment. This framework may in turn introduce new stakeholders such as communities, this directly impacts their identification and thus the understanding of their interests which ultimately inform the eco-entrepreneur's goals. Stakeholders play a significant role in the development of goals in eco-entrepreneurship through the influence they exert, with their interests dictating. This influence is likely to transcend into other business activities.



Figure 7: The role of stakeholders in the development of goals in eco-entrepreneurship

6.3 Research question 2 – How are stakeholder interests incorporated in decision making to ensure the success of eco-entrepreneurship ventures?

The importance of identifying stakeholder interests has been discussed extensively by stakeholder management scholars (e.g. Freeman, 1984, 1999; Freeman et al., 2010; Hörisch et al., 2014; Schaltegger et al., 2019). It has thus far been demonstrated that eco-entrepreneurs agree that stakeholder interest identification is crucial for their success. This section is concerned with the question of how these interests are incorporated into decision making in eco-entrepreneurship. This study results show that communication, ecological risk control, mutual learning, stakeholder engagement, stakeholder relationships and perceived value creation, are some of the aspects required to solicit stakeholder collaboration in eco-entrepreneurship. This subsection, therefore, elaborates on these themes and discusses these considering the literature reviewed.

6.3.1 Theme 1: Communication

In the development of their conceptual framework for strengthening sustainability mindsets, Hörisch et al. (2014) identified the need to establish a sustainability mindset among all stakeholders. They identified, as in this study, various stakeholders such as consumers, financiers, employees, regulators and environmental interest groups. These stakeholders are said to have varying interests. Moreover, effective collaboration among stakeholders can only be achieved when their interests align (Freudenreich et al., 2020; Hörisch et al., 2014). One of the main assertions of Hörisch et al.'s (2014) conceptual framework is the creation of awareness around sustainability among all stakeholders. Freudenreich et al. (2020) also supported this view saying that, *“while different stakeholders may have similar views on some sustainability issues, it may be necessary to develop and communicate a joint purpose to guide efforts toward more sustainable development”* (p. 12).

The study respondent concurred with Hörisch et al. (2014) and Freudenreich et al. (2020), indicating that the right message communicated effectively could lead to better stakeholder interests integration. Moreover, the type of communication required needs to be well understood for the effectiveness of the message. There are several relevant forms of communication identified in this study as applicable in eco-entrepreneurship, these forms of communication and their use in eco-entrepreneurship are summarised in Table 9.

Table 9: Forms of communication to establish mutual interests in eco-entrepreneurship

Form of communication	Effect in eco-entrepreneurship	Application
Verbal	Discussions and negotiations	This form of communication was identified as useful when eco-entrepreneurs needed to sway other stakeholder interests. A conversation on ecological issues must be had with all stakeholder views discussed and dispelled or embraced as applicable. This form of communication allows for open and honest discussions among stakeholders to reach mutual understanding.
Written	Serves to convince other stakeholders	In eco-entrepreneurship, this form of communication is used to convey information about the effects of ecological corrective action and provides recommendations for further action. It allows the eco-entrepreneur the opportunity to provide irrefutable evidence for the action called for.
Storytelling	Create awareness	Storytelling helps eco-entrepreneurs sway even the most stubborn stakeholder by allowing for the same meaning attribution to ecological issues.

Through communication, stakeholder interests are incorporated into eco-entrepreneurship businesses by anchoring the particular values shared by the eco-entrepreneur and the stakeholders.

6.3.2 Theme 2: Ecological risk control

This study results show that the management of ecological risk is at the core of eco-entrepreneurship. Through the management of ecological risk, the need to consider the environment as a stakeholder is negated. In the development of their sustainability conceptual framework, Hörisch et al. (2014) intimated that social stakeholders do not consider nature sufficiently in their decision making, hence the continued ecological degradation (Gast et al., 2017). Although this study results do not dispel this notion, the institutions that develop and enforce ecological policies are considered strong advocates for nature.

As an ecological advocate, the regulator is often responsible for developing and continued enforcement of ecological policies. These ecological policies usually consist of measures that seek to punish those that are non-compliant with the set minimum thresholds. For example, if a production company was to consistently flout the regulated emission limits, the regulatory would issue fines that approximate the company's ecological impact. Although not accurate in their approximation of the ecological impact, these fines often discourage non-compliance. The need to avoid these fines leads to ecological interests being established among stakeholders, albeit indirectly.

This research, therefore, concludes that contrary to Hörisch et al.'s (2014) discouragement of a command and control framework for ecological policies, a command and control approach to policy development indirectly establishes ecological interests among stakeholders, thereby opening opportunities for the eco-entrepreneur. This study does not agree with their suggested approach of an incentives-based approach (Hörisch et al., 2014), but rather suggests the integration of incentives-based policies with command and control policies to further strengthen the establishment of ecological interests among stakeholders to further the sustainability agenda.

6.3.3 Theme 3: Mutual learning

The study results highlighted the role and importance of education in establishing ecological interest among stakeholders in eco-entrepreneurship. According to this study results, education or mutual learning help stakeholders understand other stakeholders' points of view. Therefore, when the stakeholder seeking understanding inherently poses ecological interests, through mutual learning the stakeholder could achieve mutual understanding and the establishment of mutual interests, with ecological interest as the core interests.

Hörisch et al. (2014) suggested that to establish sustainability interests among stakeholders, education is one of the key mechanisms. They suggest that informed stakeholders are generally in a good position to make better decisions, this study posits that this is not guaranteed and that stakeholders need to be swayed toward ecological interests rather than simply informed of the ecological challenges.

Furthermore, Hörisch et al. (2014) acknowledged that although the United Nations have consistently provided sustainability education, the impact of their activities was not properly assessed and reported. This research results, however, showed that continuous education targeted at a single stakeholder may help sway their ecological views and interests. Therefore, the eco-entrepreneur may gain an advantage over other stakeholders through continuous educational discussions.

Lastly, Hörisch et al. (2014) highlighted that education not only helped in raising awareness among stakeholders but that it also introduced the empowerment element to the management of sustainability projects. This then, as they suggested, would help not only in the establishment of the required interests among stakeholders but would empower the stakeholders to act on behalf of nature. This study found that, contrary to Hörisch et al. (2014) supposition, the eco-entrepreneur as the supposed educator, would also require education to understand the other stakeholders' points of view. The understanding of all stakeholders' points of view may further enhance the eco-entrepreneur's ability to foster ecological interests among stakeholders. This study, therefore, posits that mutual learning is more appropriate for the establishment of ecological interests in eco-entrepreneurship than simply 'education'.

6.3.4 Theme 4: Stakeholder engagement

Further to the prior discussed themes, stakeholder engagement was found to be one of the key elements of eco-entrepreneurship in the establishment of common ecological interests. However, this study acknowledges that Hörisch et al. (2014) did not explicitly recognise stakeholder engagement as a pivotal pillar in the establishment of common interests with an anchoring core value. It is important however to recognise that in educating stakeholders, some form of stakeholder engagement needs to be applied, Freudenreich et al. (2020) and Hörisch et al. (2015) support this finding. Freudenreich et al. (2020) intimated that "*how businesses engage with their stakeholders also affects the kind of value created*" (p. 7).

This study acknowledges that the mutual learning theme is closely related to the

stakeholder engagement theme. However, the study results showed that the stakeholder engagement process is most often mandated by the regulator which brings a different dimension to the more voluntary mutual learning process. Therefore, these themes were viewed as fundamentally different enough and assessed as such for this study of eco-entrepreneurs.

Furthermore, stakeholder engagement has been viewed as an ethical imperative. The suggestion is that stakeholders should be viewed as taxpayers or citizens who have the right to influence projects. This view further suggests that stakeholder engagement can be used as a way to empower ordinary citizens and empower local decision making. Involving societal stakeholders in decision making allows for the development of value-adding interests among stakeholders (Freudenreich et al., 2020; Mathur et al., 2008).

The study results show that stakeholder engagement in eco-entrepreneurship is aimed at making stakeholders happy. Through the engagement of a wide range of stakeholders, stakeholder interests can be incorporated into decision making by making decisions that provide value for the majority of stakeholders (Mathur et al., 2008), such as societal stakeholders or stakeholders that represent ecological interests.

6.3.5 Theme 5: Stakeholder relationships

In answering questions of how managers adopt mindsets that combine business and ethics in routine decision making. Freeman et al. (2010) suggested that the unit of analysis in such studies be the relationships between a business and the stakeholder. This study found that relationships that exist among stakeholders could help drive the agenda of merging of interests, as suggested by Freudenreich et al. (2020). The most prominent of relationship types were those that are collaborative, which not only considers stakeholder interests but also stakeholder involvement. Supporting this view is Schaltegger et al. (2019) who claimed that *“trade-offs reflect conflicts between values of different stakeholders and that all conflicts happen in stakeholder relationships. In turn, also all social, environmental, and economic solutions and value creation are achieved in stakeholder relationships”* (p. 196).

Much like in Hörisch et al.'s (2014), Freudenreich et al. (2020) and Schaltegger et al. (2019) investigations, this study results demonstrated that eco-entrepreneurship has less to do with stakeholder management but rather stakeholder relations management. Eco-entrepreneurs are preoccupied with creating long-lasting relationships with stakeholders rather than focusing on narrow short-term interests. This then allows for the sharing of

information openly and honestly. Further, the development of a relationship requires that the actors within that relationship are identified (Christ et al., 2018; Freeman et al., 2010). Therefore, this study also posits that stakeholder identification and understanding of their interests leads to the development of the stakeholder relationships required for long-term success of the eco-entrepreneurship business.

6.3.6 Theme 6: Perceived value creation

It is suggested that stakeholder theory can solve many problems (Freeman et al., 2010). Value creation and trade is one of the more prominent issues that stakeholder theory seeks to resolve. This problem stems from the dynamic nature of the business environment and the ever-changing stakeholder relationships as the national, industry and societal contexts change (Freeman et al., 2010; Freudenreich et al., 2020; Schaltegger et al., 2019). Although value is acknowledged to be at the forefront of business purpose, Freeman et al. (2010) identified that there is not enough attention directed at understanding value creation in business but rather a focus on some kind of economic measures with value viewed as a secondary priority, sometimes even irrelevant. Against this backdrop, this study concluded that for the appropriate interpretation of the role of value creation in eco-entrepreneurship, it is important to refer to value as subjective. By acknowledging that value creation may not be absolute since it is not necessarily currently quantified in terms of economic terms, this study used perceived value creation in results interpretation.

Stakeholder theory focuses on value creation for stakeholders through the establishment of mutual stakeholder interests (Freudenreich et al., 2020; Hörisch et al., 2014). Although this study results lead to similar conclusions, the results also highlight the importance of creating an understanding of the value being evaluated.

This study results further indicated that value creation in eco-entrepreneurship is often viewed as long-term. However, it is posited that this is due to the lack of appropriate measurements for value creation, further supporting the supposition for the use of perceived value creation to ensure that further considerations are made as to whose point of view the value creation is evaluated. This long-term view of value creation also arises due to stakeholder theory that views value as improvements in the quality of life for society (Freudenreich et al., 2020; Hörisch et al., 2014). However, it is recognised that by building strong stakeholder relations, value can be created now, with prospects for long-term value creation (Hörisch et al., 2014).

The study results however did not support the view that short-term value could be created because most stakeholders currently view value in purely financial terms. By changing the concept of value creation to perceived value creation allows stakeholders to imagine that their view of value may need to change to accommodate value forms that cannot be measured and reported within the current economic reporting accounting systems. Value creation albeit perceived value creation is created through stakeholder relationships (Schaltegger et al., 2019). To conclude, eco-entrepreneurs create mutual stakeholder interests by building strong stakeholder relationships and creating a common understanding of the value offered thereby creating common interest anchored on the value perceived by each stakeholder.

6.3.7 Conclusion to research question 2 discussion

The themes discussed in this section provide an understanding of how eco-entrepreneurs integrate stakeholder interests in their decision making, as depicted in Figure 8. Expanding on the conceptual framework developed by Hörisch et al. (2014), this study identified additional activities that eco-entrepreneurs can undertake to create and integrate stakeholder interests in their businesses. This study identified communication as one of the actions an eco-entrepreneur needs to take to integrate stakeholder interests. The communication relates to all other themes such as stakeholder engagement, mutual learning and the establishment of relationships.

Also identified was ecological risk control. This aspect of integration is closely linked to the regulations as identified by Hörisch et al. (2014). By driving compliance with the regulations, eco-entrepreneurs can integrate the particular stakeholder interests driven by the regulatory environment. Indicated as simply “*education*” in Hörisch et al.'s (2014) conceptual model, this study argued that mutual learning was an appropriate conceptualising for education as it often involves eco-entrepreneurship learning as well as stakeholder learning (p.338).

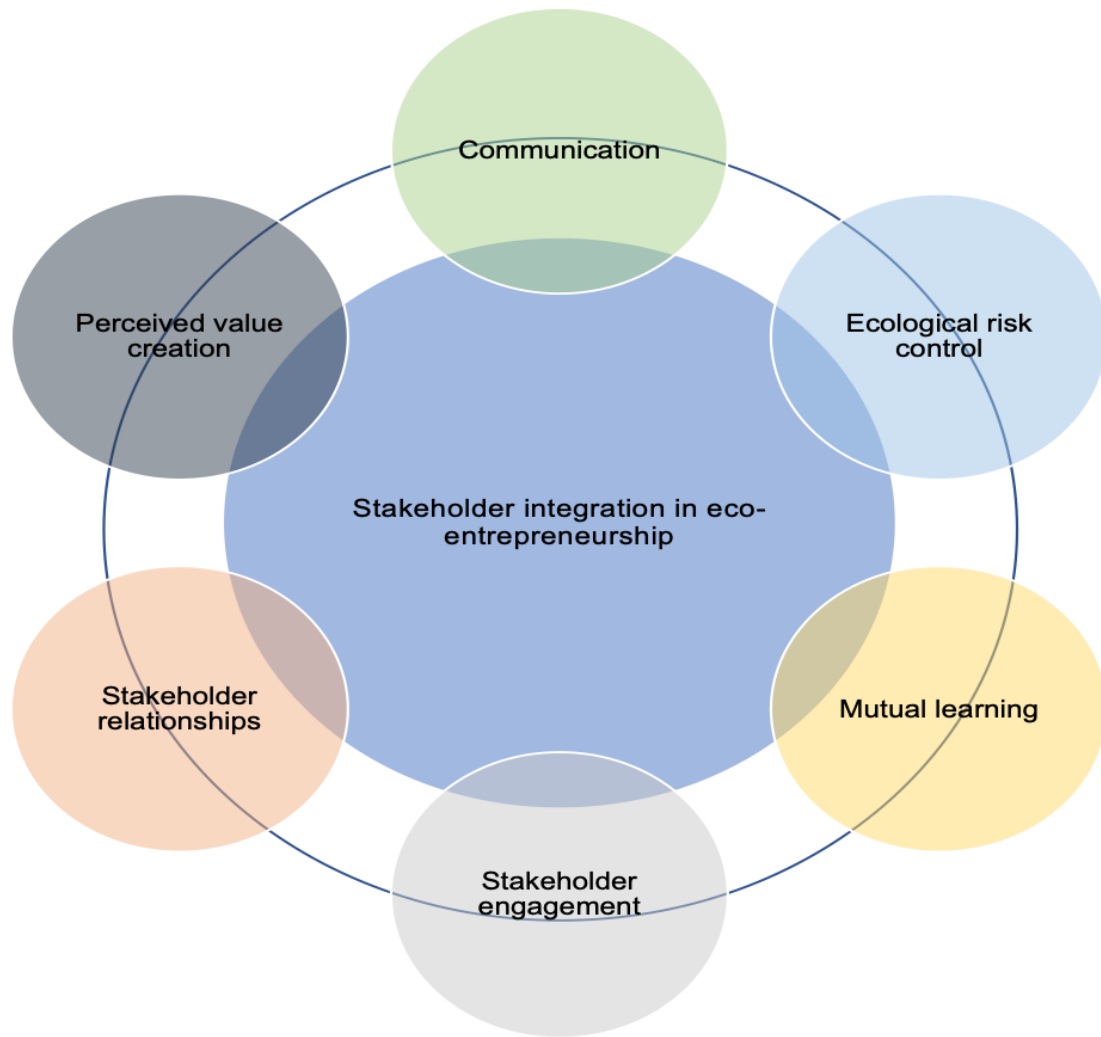


Figure 8: Themes related to the integration of stakeholder interests in eco-entrepreneurship

Further to the above, the study discussed the need for stakeholder engagement which is a form of communication in eco-entrepreneurship. Stakeholder engagement requires appropriate communication of ecological thresholds through mutual learning. Through stakeholder engagement, stakeholder relationships are created. Stakeholder relationships allow for better understanding and influencing of stakeholder interests toward their integration into eco-entrepreneurship. This section concluded by identifying perceived value creation as an influence in stakeholder interests integration. As identified by Hörisch et al. (2014), value creation plays a pivotal role in the advancement of sustainability.

6.4 Research question 3 – Which elements of stakeholder role contributes positively to overcoming these ecological and economic trade-offs?

This research question sought to establish the elements of stakeholder involvement in eco-entrepreneurship that contribute positively to overcoming trade-offs in eco-entrepreneurship. Eco-entrepreneurship is a multidimensional concept with many underlying constructs, therefore, the relationships that the eco-entrepreneur establish with their stakeholders may be equally complex with some impacting positively their goals dilemma, some impacting negatively. This section of the report analyses the data presented in the preceding section against existing literature.

6.4.1 Theme 1: Communication

Freeman et al. (2010) and Freudenreich et al. (2020) indicate that the various types of relationships that exist between the entrepreneur and stakeholders can be strengthened using several tools such as open communication and increased interactions. This study results support this supposition. The study respondents indicated that communication was a positive aspect of stakeholder role in eco-entrepreneurship.

Although not explicitly dealt with in the existing body of literature that examines stakeholder theory in the context of sustainability, communication is identified as a means through which the many proposed ways of integrating stakeholders into sustainability businesses could be achieved. Notably, Hörisch et al.'s (2014) conceptual framework for establishing common stakeholder interests and Freudenreich et al.'s (2020) stakeholder value creation framework, identified the need for anchoring sustainability mindsets among stakeholders with the later emphasising on creating a joint purpose. These require the use of communication to engage and educate stakeholders about ecological challenges. The study results showed the need for stakeholder engagement in eco-entrepreneurship. This, in the results, is also related to the success of the eco-entrepreneur in overcoming trade-offs.

Moreover, Hörisch et al.'s (2014) conceptual framework advocates for the creation of sustainability interests among stakeholders. They suggest that this could be accomplished by establishing a good regulatory framework. Again, although this does not directly point to communication as a necessary means for the effectiveness of this proposal, it is posited that some kind of communication will be required to communicate the regulatory framework so that all stakeholders have the understanding they need. This study showed

that in eco-entrepreneurship, the role of communication among stakeholders cannot be overemphasised.

6.4.2 Theme 2: Trust

According to Freeman et al. (2010), the long-term survival and success of a business hinge on its ability to establish and sustain relationships with stakeholders. However, whether the establishment of these relationships yields long-term success depends on the trustworthiness of the business to all its stakeholders (Christ et al., 2018; Freeman et al., 2020). Accordingly, this study results showed that trustworthiness in eco-entrepreneurship was as important among stakeholders as with any other business. However, eco-entrepreneurs often rely on some form of an enforceable contract to establish the required trust. This might be due to the emergent nature of this form of entrepreneurship.

Freeman et al. (2010, 2020) further highlighted that trust can lead to a competitive advantage for the trustworthy firm. They then suggest that increased trust can lower the cost of doing business. This could be achieved by employing trust in place of contracts and the need for enforcement thereof. Furthermore, trust allows for the abandoning of safeguards and contingencies that often require resources for detailed monitoring. Trust among stakeholders in eco-entrepreneurship is established through contacts and to an extent the regulatory frameworks. Establishing trust this way, as Freeman et al. (2010) indicated, is not cost-effective for the eco-entrepreneur. Therefore, the impact of establishing trust in eco-entrepreneurship goes beyond mere benefits at relationship level but could potentially see the eco-entrepreneur reducing costs, thereby improving their competitiveness in the marketplace.

6.4.3 Theme 3: Ecological legislative framework

Society has long been pondering whether business executives or entrepreneurs could be ethical in their quest to achieve their economic objectives (Freeman et al., 2010, 2020). Globalisation and the dynamic nature of the business environment have led to greater scrutiny of firms. Ethical issues relating to the causes of the 2008 market crash have been raised with business regulation viewed as a solution to these ethical dilemmas (Freeman et al., 2010). This study found that eco-entrepreneurship services are often viewed as a grudge purchase. Despite the pressing needs for ecological restoration, the market still views eco-entrepreneurial services as a grudge purchase. This is in reference to much-needed waste management and air quality-related services. This supports the case for the regulation of business toward integration of ethics or doing the right thing as Freeman

et al. (2010) intimated.

The regulatory environment also impacts eco-entrepreneurship in a way where regulatory frameworks help create markets for eco-entrepreneurship services or products. This conclusion was formulated using this study's results. The eco-entrepreneurs identified the government as a market creator through regulation and enforcement thereof. The results show strong support for the involvement of the regulatory stakeholder in developing and enforcing its policies. The results further stress that a lack of enforcement of the regulations sometimes results in direct financial losses.

Financial losses are often realised where a regulation has been published for implementation by the market, however, lack of enforcement undermines the implementation phase. Then those eco-entrepreneurs who would have invested in the development of new services in anticipation of a new policy will suffer financial losses unless they can convince the market to adopt their services in a lackadaisical regulatory enforcement environment. Hörisch et al. (2014) opposed this view indicating that "*instead of one size fits all command and control mechanisms, in the context of corporate sustainability, governments should facilitate value creation*" (Hörisch et al., 2014, p. 339). The results of this study show the flaw with this argument in that it assumes that incentives alone can spark a change in the mindsets and interests of stakeholders.

Although this study results show the importance of a command and control form of environmental policy, the results also indicate the need for flexibility within the regulations and provision of incentives as advocated by Hörisch et al. (2014). Both cases are supported in the literature, Freeman et al. (2010), as highlighted above, supported the view that businesses need some kind of regulation to ensure that they act in the interests of all stakeholders including ecological or societal stakeholders rather than focusing on those shareholders with only economic interests such as shareholders. While Hörisch et al., (2014) discourage the command and control elements of regulators, they, supported by Ball and Kittler (2019), encourage the development of frameworks with strong incentives to encourage stakeholders to cooperate in advancing issues of sustainability.

In this study, it is concluded that both cases have merit. However, the contexts under which their impacts become undesirable need to be investigated. The regulatory environment, whether command and control or incentives framework, has an impact on eco-entrepreneurship. It is concluded that this impact is context-dependent and needs to be studied further to firstly confirm this conclusion and second to identify the exact contexts where the type of regulatory environment presents either positive or negative

impacts.

6.4.4 Theme 4: Common interest

In eco-entrepreneurship, stakeholders cooperate around the value of ecological protection. The study results show that eco-entrepreneurs view this as their mission, the core reason for their involvement in their current businesses. In stakeholder theory, it is understood that entrepreneurs, as stakeholders, do not act in a moral vacuum but that they cooperate with other stakeholders around a set of values (Freeman et al., 2000; Freudenreich et al., 2020). Stakeholders often find that they need to negotiate to create common interests (Hörisch et al., 2014).

The results showed that the establishment of common interests among stakeholders is paramount for the eco-entrepreneur. Following the process of identifying stakeholder interests, the eco-entrepreneur must create an alignment of interests, otherwise, they would need to abandon that project to avoid mission drift. This understanding offers a view of the eco-entrepreneur as part of a process of creative destruction (Rahdari et al., 2016). The destruction of the current status quo, where the market view ecological issues as secondary to a new market where businesses and society view ecological issues as intertwined with their economic goals. This is evident in the study results where eco-entrepreneurs indicated the need to resort to coercion from time to time. Most relevant to situations where stakeholder interests do not align, where regulations explicitly support the eco-entrepreneur's proposal. In conclusion, the literature supported the study results by indicating the need for values alignment in multistakeholder environments such as is eco-entrepreneurship.

6.4.5 Theme 5: stakeholder incorporation in strategy

Consideration of stakeholders in business strategy should be at the broader value chain level. Customers or suppliers who are stakeholders may have bargaining power over the firm, thereby impacting the value chain. Stakeholders such as employees, communities and NGOs all impact the value chain of an industry (Freeman et al., 2010; Freudenreich et al., 2020; Schaltegger et al., 2019). Eco-entrepreneurs, like other entrepreneurs, must evaluate the market at an industry level and then develop a proposition to satisfy the needs of specific stakeholders (Gast et al., 2017; O'Neil & Ucbasaran, 2016). This study showed that stakeholder interests are incorporated from the evaluation stage of an opportunity. The eco-entrepreneur identifies an opportunity, then assessed which stakeholders are relevant, determines their interests and then crafts a strategy to satisfy those interests.

Eco-entrepreneurs can discern as to which opportunity might be worth their investments base on stakeholder interests. For example, where a community has an important heritage site such as a gravesite located where a wind farm is planned to be located, the eco-entrepreneur must assess the likelihood of aligning interests toward the wind farm and achieve community buy-in. It is at this stage that stakeholder interests are incorporated into the eco-entrepreneurship strategy. This, however, goes beyond the instantaneous need for strategic decision-making and requires the evaluation of whether the stakeholder interests may change in the future and include that aspect in the strategy (Freeman et al., 2010; Schaltegger et al., 2019).

6.4.6 Conclusion to research question 3 discussion

Communication was identified as one of the most important aspects of eco-entrepreneurship. Communication is seen as a means by which trust can be established. Eco-entrepreneurs also identified the role of communication in the establishment of understanding relating to the regulations. Therefore, communication is seen as the first (as shown in Figure 9) most important dimension of stakeholder role eco-entrepreneurship. It has also been demonstrated that in eco-entrepreneurship, communication with stakeholders can facilitate the achievement of the eco-entrepreneur's objectives.

Communication, as Figure 9 depicts, facilitates the establishment of trust among stakeholders. It is concluded that the impact of establishing trust in eco-entrepreneurship goes beyond mere benefits at the relationship level but could potentially see the eco-entrepreneur reducing costs, thereby improving their competitiveness in the marketplace. Communication also plays a positive role in the enforcement, dissemination, negotiations and implementation of ecological policies.

With trust and regulations in place, common interests can be established, again through well-communicated messages and stakeholder engagement. The establishment of common interests among stakeholders in eco-entrepreneurship is an important driver for overcoming trade-offs. This study and others have shown that the establishment of common interests among stakeholders should be at the forefront of the eco-entrepreneur's agenda.

Lastly, with good communication, regulation, trust and common interests established, stakeholders can be incorporated into the firm's strategy. However, this is not necessarily a chronological process, the incorporation of stakeholder interests into a strategy can

occur before trust is established. The establishment of trust, good communication, a good regulatory environment could also be the firm's strategy. Therefore, the elements of stakeholder involvement in eco-entrepreneurship are not simply processes but characteristic of an eco-entrepreneurship firm. They are not sequential but are iterative and should be constantly refined as the business environment changes.

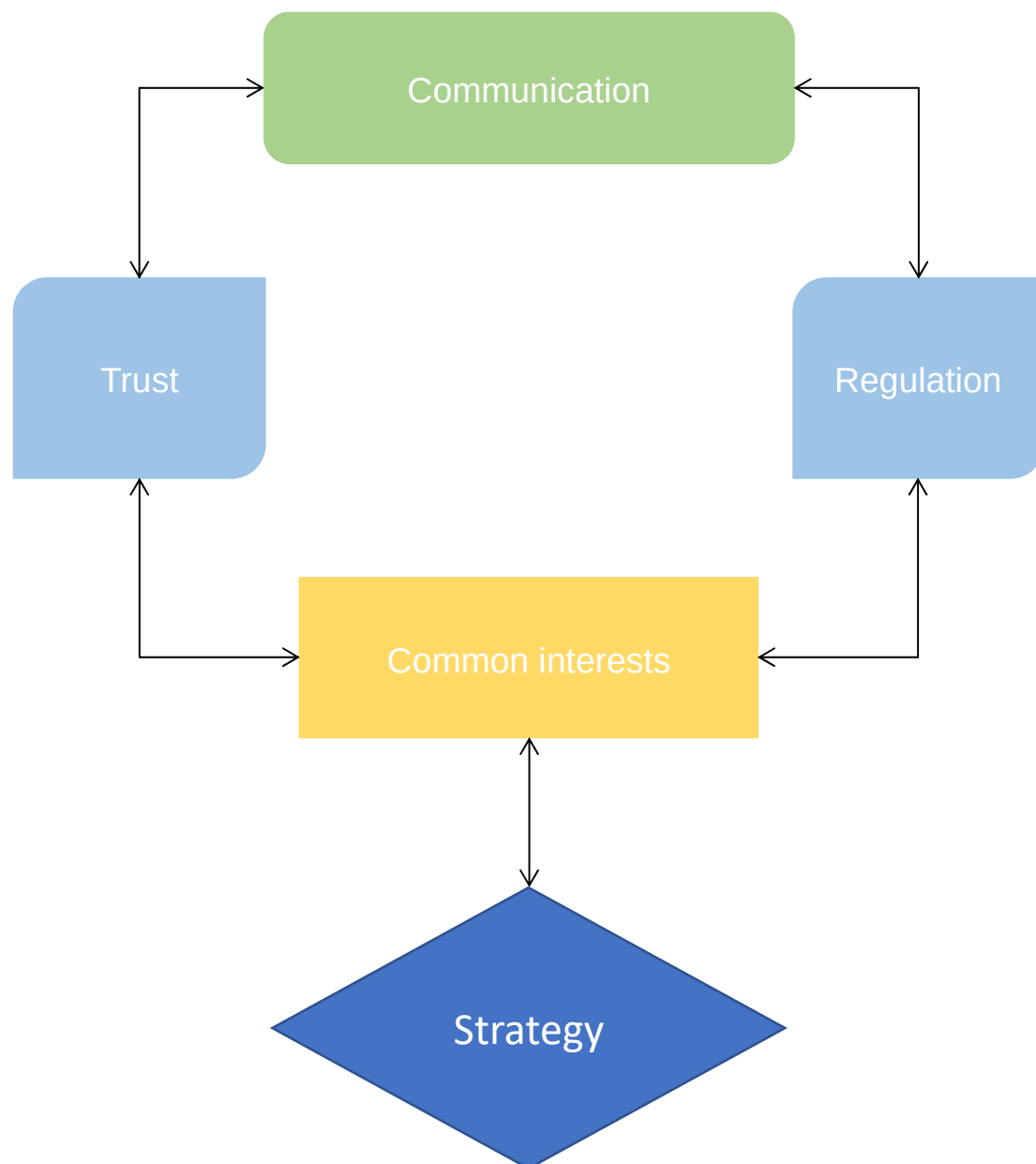


Figure 9: Dimensions of stakeholder management that lead to positive impact overcoming trade-offs in eco-entrepreneurship

6.5 Conclusion

This chapter served to review the study results against existing literature and to develop understanding to help answer the research questions. The main research question this study sought to answer is understanding the role of stakeholders in the overcoming of economic and ecological trade-offs in eco-entrepreneurship. In concluding this chapter, a set of propositions that emerged in the discussion of results on the role of stakeholders in overcoming economic and ecological trade-offs in eco-entrepreneurship are presented below:

- 1) The role of regulatory stakeholders is the establishment of the eco-entrepreneurship market through an incentives-based, and command and control regulatory framework.
- 2) Society or consumers, financial institutions and other NGOs as stakeholders can create an enabling environment for eco-entrepreneurs by demanding products and services that have a positive impact on the environment.
- 3) Value creation in eco-entrepreneurship is not clearly defined and communicated, thus stakeholders' view the value created is subjective with differing interpretations which often undervalue eco-entrepreneurship contributions.
- 4) In overcoming trade-offs, stakeholders or eco-entrepreneurs create common interests through mutual learning, open communication, stakeholder engagement and value creation.

Chapter 7: Conclusions and recommendations

7.1 Introduction

The study's main findings are highlighted in this chapter with the study results linked to literature providing answers to the research questions. The principal conclusions are presented first with a theoretical lens. The theoretical contribution of this research is then presented. Following the presentation of the theoretical contribution are the implications of the study to all relevant stakeholders, with the said stakeholders identified. The limitations of this research are then presented followed by suggestions for future research.

This research sought to:

- ▶ Understand the role of stakeholders in the development of economic and ecological objectives in eco-entrepreneurship.
- ▶ Understand how eco-entrepreneurship ventures incorporate conflicting stakeholder interests into their decision-making process.
- ▶ Establish the particular elements the role of stakeholders play to positively contribute to the successful balancing of economic and ecological trade-offs in eco-entrepreneurship.

The findings showed that stakeholders such as the regulator, society and ecological agents impact the goals development in eco-entrepreneurship directly or indirectly through market instruments such as legislative frameworks and societal pressure. Through communication, ecological risk control, mutual learning, stakeholder engagement, stakeholder relationships and perceived value creation, eco-entrepreneurs can incorporate stakeholder interests into their decision-making process. Lastly, this study identified key dimensions of stakeholder involvement in eco-entrepreneurship that yield positive results for eco-business management, that is, consideration of stakeholder interests at strategic level, establishing common interests, establishing trust among stakeholders, multi-faceted ecological regulations and the fostering of open communication among stakeholders.

7.2 Principal conclusions

7.2.1 Research question 1 – What is the role of stakeholders in economic and ecological objectives development in eco-entrepreneurship?

Depicted by Figure 10 is the first principal conclusion drawn by this study. It was identified that stakeholders impact eco-entrepreneurship ventures greatly, primarily due to the

lifecycle stage of the industry (Schaltegger et al., 2019). The identification of these stakeholders is seen as critically important in the goals setting process (Christ et al., 2018; Freeman et al., 2010) as shown in Figure 10.

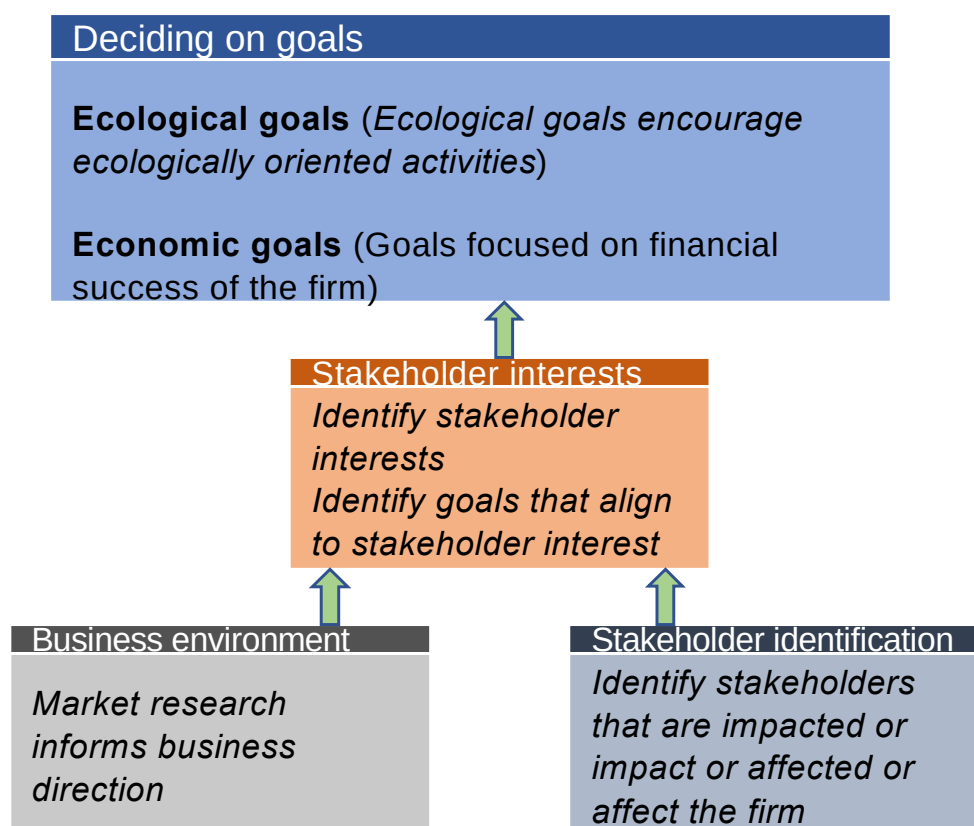


Figure 10: Role of stakeholders in goals development in eco-entrepreneurship

Through the business environment, stakeholders that impact or create markets influence the economic and ecological goals of an eco-entrepreneur. Without the market environment created by the stakeholders, the eco-entrepreneur would not be able to establish its eco venture (Hörisch et al., 2014). By way of example, the regulation of the waste industry has created different types of eco-entrepreneurs, from waste managers to recyclers to energy recovery eco-entrepreneurs. These eco-entrepreneurs are guided by the direction of the regulations in the development of their goals (Schaltegger et al., 2019). Similarly, societal stakeholders may demand products that have been produced through cleaner production processes (Antolin-Lopez et al., 2019; Melay et al., 2017). These demands create opportunities for eco-entrepreneurs. As societal mindsets shift, eco-entrepreneurs anticipate the demand for their products and develop their goals to align with the market demands (Ball & Kittler, 2019).

7.2.2 Research question 2 – How are stakeholder interests incorporated in decision making to ensure the success of eco-entrepreneurship ventures?

Moreover, immediately after the goals have been decided on with stakeholders and their interests identified, the eco-entrepreneur's task is to integrate these to create common interests for the organisation to satisfy the relevant stakeholders (Schaltegger et al., 2019). In this regard, several pillars (as demonstrated in Figure 11) were identified as necessary to enable the integration of stakeholder interest in eco-entrepreneurship. Communication was identified as a contributing pillar to easing the challenge of integrating stakeholder interests in eco-entrepreneurship (Freudenreich et al., 2020). Stakeholders, therefore, should make this communication among one another as easy and honest as possible as the results suggested.

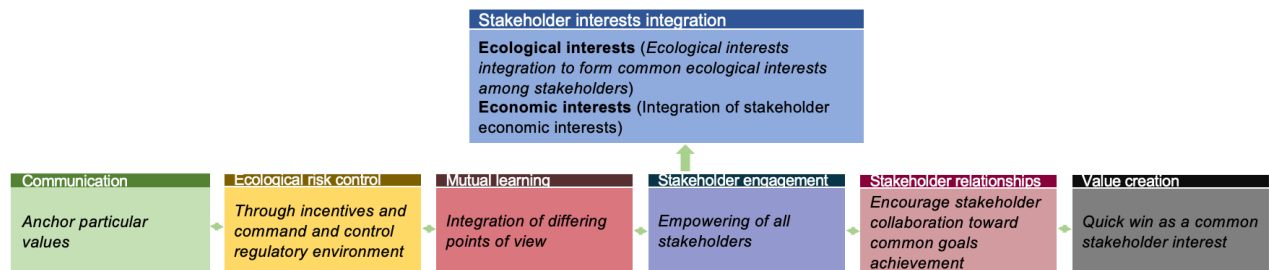


Figure 11: Pillars for stakeholder interest integrations in eco-entrepreneurship

With improved communication, ecological risk control becomes the next important pillar for consideration. Through ecological policies, the government helps control ecological risk by establishing allowable industry thresholds for activities that degrade the ecology, thereby enabling the management of the effects (Hörisch et al., 2014; Schaltegger et al., 2019). Society, financial institutions and NGOs are also important stakeholders that have demonstrated their power by the pressure they often place on businesses to be more ecologically protective in their processes (Gast et al., 2017).

Mutual learning was identified as another pillar that ensures the integration of stakeholder interests in eco-entrepreneurship (Freudenreich et al., 2020; Hörisch et al., 2014). As the results showed, the successful integration of stakeholder interests in eco-entrepreneurship is dependent on the willingness, of those involved, to learn and educate others. Therefore, stakeholders including the eco-entrepreneur must be willing and able to accept mutual learning as a process of overcoming trade-offs in stakeholder interests in eco-entrepreneurship.

Mutual learning is achieved through a stakeholder engagement process. Through stakeholder engagement, learning can be achieved as well as the empowering of all stakeholders (Hörisch et al., 2015). However, this requires responsive and responsible stakeholders that are willing to participate in the engagement process. Stakeholder engagement also fosters the development and maintenance of stakeholder relationships (Freudenreich et al., 2020). The openness of stakeholders to collaborate toward the development of common interests allows the opportunity for developing strong relationships.

Additionally, this study concludes that perceived value creation is one of the pillars that drive the integration of stakeholder interests in eco-entrepreneurship. Since most business activities are often associated with creating value for some stakeholders (Freeman et al., 2010; Freudenreich et al., 2020; Hörisch et al., 2014; Schaltegger et al., 2019). This study posits that communicated properly; perceived value creation can be viewed as a common stakeholder interest.

7.2.3 Research question 3 – Which elements of stakeholder role contributes positively to overcoming these ecological and economic trade-offs?

Further to the above, deciding on goals and the integration of stakeholder interests are only part of the process of overcoming trade-offs between economic and ecological goals in eco-entrepreneurship, with the integrated process depicted in Figure 12. This study identified key enablers required for balancing these trade-offs. The regulatory environment was identified as an enabling pillar for eco-entrepreneurs (Freeman et al., 2020). It is supposed that both an incentives-based regulatory environment as well as a control and command environment contribute positively toward the successful balancing of economic and ecological goals in eco-entrepreneurship (Hörisch et al., 2014). With good environmental policies in place, the eco-entrepreneur can focus their attention on the economic aspect knowing that the regulatory environment readily protects the environment (Ball & Kittler, 2019). Therefore, the role of the regulatory stakeholders is to provide a conducive regulatory environment with regulatory frameworks that both incentivise good behaviour but also provide a command-and-control framework for those who may not see the incentives as sufficient motivators to adopt sustainability practices.

Additional to the regulatory environment, is the establishment of common interests among stakeholders (Freeman et al., 2020). Eco-entrepreneurs are understood to possess some level of ecological orientation. Therefore, their values are fundamentally environmentally oriented, with this consideration, their interests have a component that fosters

environmental protection or prevention of further degradation (Galkina, 2021). Therefore, when common interests among stakeholders have been established, one of these interests would be aligned to environmental protection. Eco-entrepreneurship stakeholders need to be open to dialogue and discussions that seek to provide an understanding of the different interests and how these relate to value creation.

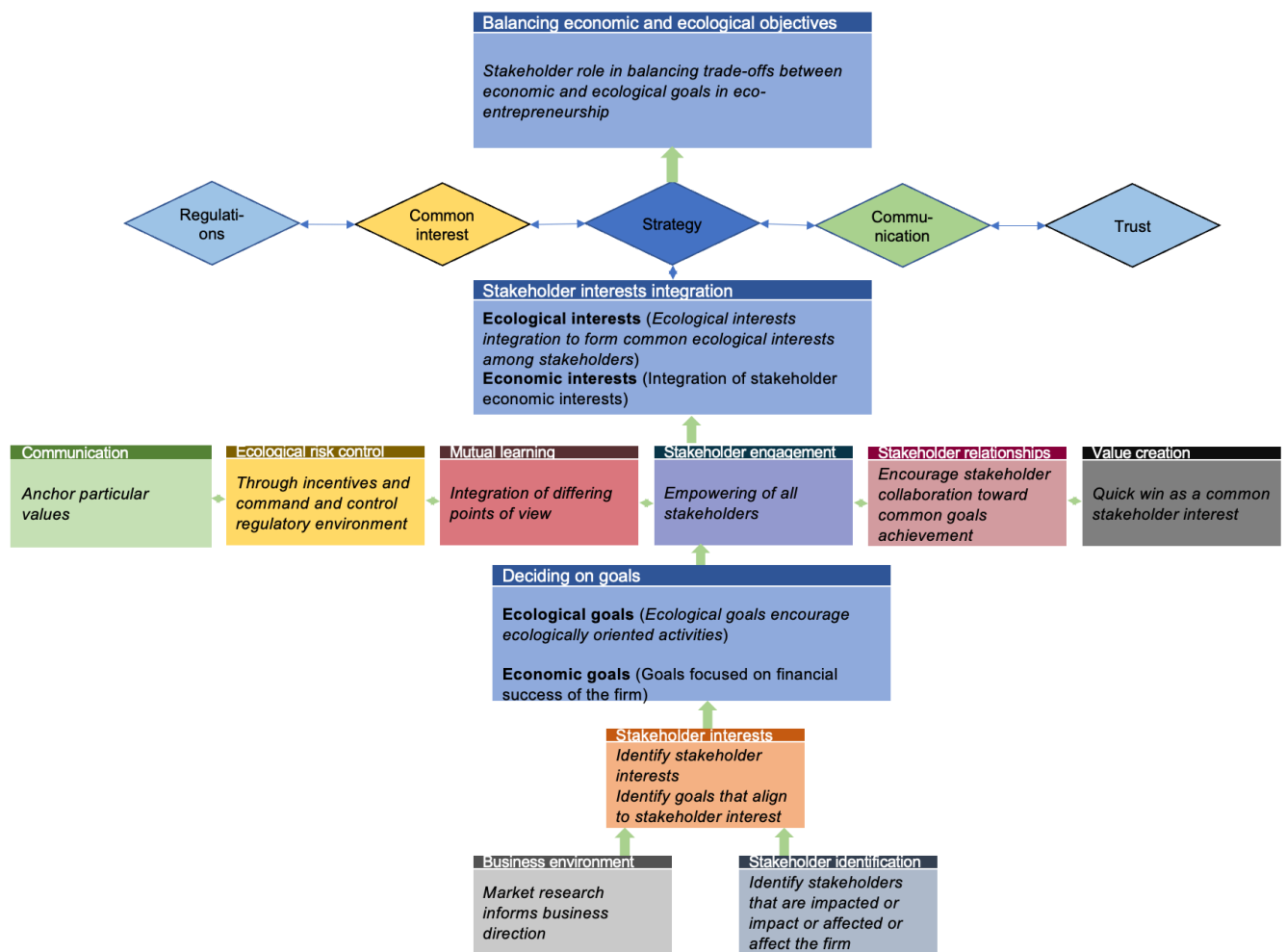


Figure 12: Conceptual understanding of the role of stakeholder theory in eco-entrepreneurship pertaining to the overcoming of economic and ecological trade-offs

Communication among stakeholders is posited to be a significant driver that positively impacts the balancing of economic and ecological goals in eco-entrepreneurship (Freudenreich et al., 2020; Hörisch et al., 2014). To achieve their goals, eco-entrepreneurs need to communicate as much and as often as possible with all their stakeholders as goals evolve with evolving business environments. The study concludes that although the eco-entrepreneurs would likely be expected to initiate this communication. Other

stakeholders should be open to communication, not only with the eco-entrepreneur but among each other to ease the process of establishing common interests.

Trust is also posited as an important dimension to achieving the balance in economic and ecological goals through stakeholder collaboration in eco-entrepreneurship (Christ et al., 2018; Freeman et al., 2020). Although this study concludes that eco-entrepreneurs develop trust through contracts and data communication, stakeholders need to be open to trusting one another. With trust, the eco-entrepreneur might reduce costs associated with inefficiencies underpinned by the lack of trust. The last dimension posited to have an impact on eco-entrepreneurship overcoming the economic and ecological trade-offs they experience is the incorporation of stakeholder interests in strategy (Freudenreich et al., 2020; Schaltegger et al., 2019). The role stakeholders play to allow the execution of this dimension is to provide honest feedback when providing their interests, so their integration yields the desired outcomes of satisfying stakeholder needs.

7.3 Theoretical contribution

This study contributes to theory in several ways outlined below:

- ▶ Studies of eco-entrepreneurship using stakeholder theory have not been undertaken before this study. Therefore, this study contributes not only to eco-entrepreneurship studies but also to sustainability studies.
- ▶ This study concluded that the establishment of common interests in eco-entrepreneurship requires a few more pillars in addition to the education, regulatory and value creation pillars identified by Hörisch et al. (2014). In this study, two additional pillars are communication and stakeholder engagement or relationships.
- ▶ While implicit in most sustainability and eco-entrepreneurship studies, this study explicitly identified stakeholder identification as a necessary step toward balancing economic and ecological trade-offs in eco-entrepreneurship.
- ▶ Furthermore, this study concluded that although literature generally views regulatory frameworks as independent ideologies. One is where the regulator creates incentives to promote sustainability activities. The second is where the regulator uses command and control regulations to promote sustainability. This study found that both ideologies are effective in promoting sustainability, contributing to the existing literature body.

7.4 Implications for management

This study sought to understand the role of stakeholders in overcoming economic and ecological goals in eco-entrepreneurship. Implications for management are delineated into stakeholders as relevant and outlined in Table 10.

Table 10: Research implications for eco-entrepreneurship stakeholders

Stakeholder	The implication of research findings
<i>Implications for financial institutions</i>	Eco-entrepreneurship is posited to be the vehicle toward change in the efforts to reverse or prevent environmental degradation. Financial institutions, such as the International Monetary Fund (IMF), commercial and development banks, need to focus their efforts on eco-entrepreneurship financing to improve their brand images and contribute to a sustainable future.
<i>Implications for governments</i>	Environmental regulations which are often set by governments were found to be an important driver for eco-entrepreneurship success. The regulatory framework that contributes positively to eco-entrepreneurship was found to be a hybrid model between the incentive-based frameworks and the traditional command and control frameworks. Therefore, governments need to adopt hybrid regulatory frameworks that provide for both incentives and the traditional command and control structure. However, governments may require a new set of skills as well additional financing in implementing this shift in regulatory frameworks
<i>Implications for institutions</i>	Institutions, such as NGOs, the United Nations, Stock Exchanges and Universities, have the responsibility to promote and create awareness about sustainability issues. Awareness has been posited to create new markets which eco-entrepreneurs can exploit.
<i>Implications for society</i>	Societal stakeholders are posited to drive the change in business mindsets that is required to improve business activities in relation to desirable sustainability-focused activities with a strong focus on environmental protection. However, these stakeholders are often viewed as weak stakeholders who lack the required information to

Stakeholder	The implication of research findings
	make an impact. Therefore, these stakeholders should endeavour to improve their knowledge of sustainability matters so that they can act as ecological agents as well as for their interests.
<i>Implications for consumers</i>	The role of consumers has been identified as that of market creation through product demand. Consumers must take more responsibility for their demands for eco-friendly products to promote sustainable production processes thereby reducing negative environmental effects of production.
<i>Implication for traditional business</i>	Traditional businesses are generally customers of eco-entrepreneurship services as demonstrated by this study results. Trust among stakeholders in eco-entrepreneurship leads to reduced operational costs thus prices for their services. Therefore, businesses should focus on those activities that give effect to trust in their relationships with eco-entrepreneurs.
<i>Implication for eco-entrepreneurs</i>	The findings imply a disproportionate responsibility placed on eco-entrepreneurs due to the lack of urgency toward the resolution of ecological challenges. Eco-entrepreneurs, therefore, play the role of ecological agents representing ecological interests. The importance of the role of regulations highlighted, suggests that eco-entrepreneurs should use communication to influence regulators in developing regulatory frameworks to support eco-entrepreneurship market creation.

7.5 Limitations of the research

Several limitations associated with this research were identified and outlined as follows:

- ▶ The researcher has an established career in the field of sustainability with pre-existing strong views on the subject. Moreover, the research method, that is qualitative research, is known to be subjective where objectivity is difficult to maintain.
- ▶ The nature of a qualitative study and the limited number of total participants, do not

allow for statistical generalisation of results to the entire population (M. Saunders & Lewis, 2018).

- ▶ Eco-entrepreneurs were asked about how they balance their economic and ecological goals in their organisations. The entrepreneurs were required to remember details around their activities and their decision-making processes which may have been limited to the extent of their recollection, leading to the potential for exclusion of some details during the interviews.
- ▶ Although motivated by different factors, all study participants are associated with regulated industries. Further exploration, although it may not contradict these results, may broaden the study applicability across different industries and countries which may have different regulatory environments.
- ▶ The participants were all operating within the Southern African region, most of which is developing. Therefore, this study conclusion may be limited to inferences about a similar phenomenon in developing nations only.

7.6 Direction for future research

Although eco-entrepreneurship is a relatively new area of research, several researchers, including this study, have made significant strides in providing a foundation for future research with proposed research directions as follows:

- ▶ The need for research into how value associated with sustainability activities is quantified, considering the subjective nature of the current value quantification methods.
- ▶ The contribution of eco-entrepreneurship to environmental improvement is yet to be investigated.
- ▶ The impact of regulations in eco-entrepreneurship, overregulation vs under regulation, incentive-based regulatory frameworks vs command and control, needs to be investigated.
- ▶ The role of society or consumers, financial institutions and other NGOs as stakeholders in the creation of an enabling environment for eco-entrepreneurs should be investigated.
- ▶ In overcoming trade-offs, stakeholders or eco-entrepreneurs create common interests through mutual learning, open communication, stakeholder engagement and value creation. Quantitative studies to test these claims should be undertaken.

7.7 Concluding remarks

This study sought to shed light on eco-entrepreneurs as the new agents for change toward solving the world's environmental grand challenges. The findings conclusively argue for collaboration among all people. The researcher, after spending months reviewing other scholastic work in the field, believes that with time these challenges although seem insurmountable will soon be a thing of the past.

Chapter 8: References

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Appendix 1: Consent form

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Stakeholder role in overcoming trade-offs between economic and ecological objectives in eco-entrepreneurship

Informed Consent Letter

Dear participant,

I am currently a student at the University of Pretoria's Gordon Institute of Business Science (GIBS) and completing my research in partial fulfilment of the MBA.

I am conducting research on overcoming tradeoffs between economic and ecological objectives in eco-entrepreneurship and understanding the role of stakeholders. Our interview is expected to last about an hour and will help us understand how eco-entrepreneurs balance their economic and ecological goals.

Your participation is voluntary and you can withdraw at any time without penalty. All data will be reported without identifiers. This interview will be recorded and later transcribed for further analysis. If you have any concerns, please contact my supervisor or myself. Our details are provided below.

Researcher Name: Sintu Mhlonyane Email: 26035228@mygibs.co.za Phone: +27 79 302 8139	Research Supervisor: Prof Anastacia Mamabolo Email: mamaboloa@gibs.co.za Phone: +27 11 771 4000
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Signature of participant: _____

Date: _____

Signature of researcher: _____

Date: _____

(Eldh et al., 2020)

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Appendix 2: Interview guide

Interview Guide

RE: Stakeholder role in overcoming trade-offs between economic and ecological objectives in eco-entrepreneurship

Introduction

- Introduce yourself and the organisation
- Introduce the study
- Remind interviewee of confidentiality
- Remind interviewee of anonymity
- Remind interviewee of right not to answer a question if they do not wish to
- Remind interviewee of right to stop the interview at any time without penalty
- Confirm consent for audio recording the interview

Interview topics of discussion

- 1 Tell me about your business and why you started/running this business?
- 2 What are some of the important goals/priorities of your business?
 - 2.1 How were the goals decided on, who decided on these objectives and why?
- 3 Tell me about the key stakeholders that are relevant to your business?
 - 3.1 What are their interests?
- 4 What relationship do the stakeholders have with the venture?
- 5 How do your relationships with the stakeholders help/impede in the achievement of your business goals?
- 6 Do you consider stakeholders in decision making?
 - 6.1 Which stakeholders and for which decisions?
- 7 Do the stakeholder values align with your values, how do you manage misalignment?
- 8 Since your business needs to remain a going concern, when the achievement of economic and ecological goals has conflicting business outcomes, how do you

manage that?

8.1 Do stakeholders help and how?

9 How did your relationships with your stakeholders impact your resolution or avoidance of the conflict between economic and ecological goals?

Notes:

Stakeholder – refers to those groups and individuals who can affect or be affected by the actions connected to value creation and trade; or the individuals and groups who are depending on the firm to achieve their personal goals and on whom the firm is depending for its existence.

Eco-entrepreneurship – refers to environmental entrepreneurship or ecopreneurship

Appendix 3: Interview guide with coding prefixes

Interview topics of discussion

1 Tell me about your business and why you started/running this business?

Background

Motives

2 What are some of the important goals/priorities of your business? **Goals**

LT Goals (Long-term goals)

2.1 How were the goals decided on, who decided on these objectives and why? **Deciding goals**

3 Tell me about the key stakeholders that are relevant to your business? **St**

3.1 What are their interests? **St interest**

4 What relationship do the stakeholders have with the venture? **St R (St relationship)**

5 How do your relationships with the stakeholders help/impede in the achievement of your business goals? **St interaction**

6 Do you consider stakeholders in decision making? **St in decisions**

6.1 Which stakeholders and for which decisions? **Specific St D**

7 Do the stakeholder values align with your values, how do you manage misalignment? **St Values**

8 Since your business needs to remain a going concern, when the achievement of economic and ecological goals has conflicting business outcomes, how do you manage that? **Paradoxical Values**

8.1 Do stakeholders help and how? **St assist**

9 How did your relationships with your stakeholders impact your resolution or avoidance of the conflict between economic and ecological goals? **St R assist**

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Appendix 4: Themes developed from the thematic analysis

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Codes	Themes	Research question
Deciding goals: Understanding the market	Business environment	RQ1
Deciding goals: Legislative driven	Business environment	RQ1
St: Communities are crucial stakeholder	Stakeholder identification	RQ1
St: Engage all stakeholder	Stakeholder identification	RQ1
St: Importance of stakeholder identification	Stakeholder identification	RQ1
St interest: Establish stakeholder interests	Understanding stakeholder interest	RQ1
St interest: Selfish interest among stakeholders exist	Understanding stakeholder interest	RQ1
St interest: Stakeholder incentives	Understanding stakeholder interest	RQ1
Motives: Ecological agent	Communication	RQ2
St interaction: Align values through education	Communication	RQ2
St interaction: Communicate risk to all stakeholders	Communication	RQ2
St R: Ecological agent	Communication	RQ2
St interaction: Eco-entrepreneurs must be mediators	Communication	RQ2
St: Consider the environment as stakeholder	Communication	RQ2

St in decisions: Acceptable environmental risk threshold	Controlling ecological risk	RQ2
St in decisions: Controlling environmental risk	Controlling ecological risk	RQ2
St interaction: Regulation prevent further ecological degradation	Controlling ecological risk	RQ2
St interest: Budgeting for ecological risk	Controlling ecological risk	RQ2
St interest: Budgeting for punitive ecological measures	Controlling ecological risk	RQ2
St: Regulations key	Controlling ecological risk	RQ2
St interaction: Educate all stakeholders involved	Education	RQ2
St interaction: Educate stakeholders on regulations	Education	RQ2
St interaction: Educate the clients	Education	RQ2
St interaction: Educate the regulators	Education	RQ2
St interaction: Education precipitated change in orientation	Education	RQ2
St interaction: Education to establish ecological interest	Education	RQ2
St in decisions: Stakeholder engagement - legislation mandated	Stakeholder engagement	RQ2
St in decisions: Stakeholder engagement for long-term economic benefit	Stakeholder engagement	RQ2
St interaction: Introduce stakeholders into value chain	Stakeholder engagement	RQ2
St interaction: Lost time stakeholder engagement	Stakeholder engagement	RQ2

St interaction: Public consultation	Stakeholder engagement	RQ2
St interaction: Working with stakeholders	Stakeholder engagement	RQ2
St R: Stakeholder engagement	Stakeholder engagement	RQ2
St interaction: Frequent stakeholder engagement	Stakeholder relationships	RQ2
St interaction: Influence how the regulator spends ecological funds	Stakeholder relationships	RQ2
St R: Stakeholder relationship building	Stakeholder relationships	RQ2
St values: Establish forums to engage all stakeholders	Stakeholder relationships	RQ2
Goals: Implement alternative processes	Value creation	RQ2
Goals: Innovate to remain ecologically oriented	Value creation	RQ2
Goals: Innovation	Value creation	RQ2
LT goals: Break down existing structures	Value creation	RQ2
St interaction: Good value offering	Value creation	RQ2
St R assist: Develop collaborative relationships	Value creation	RQ2
St R assist: Open communication among stakeholders	Communication	RQ3
St assist: Encouraging regulator	Regulatory environment	RQ3
St assist: Market created by government legislation	Regulatory environment	RQ3
St assist: Regulations leading to innovation	Regulatory environment	RQ3
Specific St D: Enforcement of regulations	Regulatory environment	RQ3
St assist: Government enforcing ecological protection	Regulatory environment	RQ3

St assist: Importance of licensing	Regulatory environment	RQ3
St assist: Weak stakeholders protection from government	Regulatory environment	RQ3
St in decisions: Importance of transparency	Trust	RQ3
St interaction: Establish trust among stakeholders	Trust	RQ3
St R: Establish credibility	Trust	RQ3
St R: Stakeholder accountability	Trust	RQ3
St assist: Importance of consumer pressure	Common interest	RQ3
St R assist: Stakeholder compromise	Common interest	RQ3
St R assist: Stakeholder negotiation for ecological protection	Common interest	RQ3
St R: Influence stakeholder relationships	Common interest	RQ3
St values: Investors must have aligned values	Common interest	RQ3
St assist: Community buy-in through education	Stakeholder incorporation in strategy	RQ3
St assist: Leverage strong stakeholder relationships	Stakeholder incorporation in strategy	RQ3
St assist: Strategic use of weak stakeholders	Stakeholder incorporation in strategy	RQ3
St in decisions: Consider stakeholders in decision making	Stakeholder incorporation in strategy	RQ3

Notes. ^a Research question 1 – *What is the role of stakeholders in economic and ecological objectives development in eco-entrepreneurship?*

^b Research question 2 – *How are stakeholder interests incorporated in decision making to ensure the success of eco-entrepreneurship ventures?*

^c Research question 3 – *Which elements of stakeholder role contributes positively to overcoming these trade-offs?*

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Appendix 5: Ethical Clearance Approval

**Online:
Selling Disrupted Conference**
Monday, 11 October 2021

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**Gordon
Institute
of Business
Science**
University
of Pretoria

**Gordon Institute
of Business Science**
University of Pretoria

**Ethical Clearance
Approved**

Dear Sintu Mhlonyane,

Please be advised that your application for **Ethical Clearance** has been approved.
You are therefore allowed to continue collecting your data.
We wish you everything of the best for the rest of the project.

[Ethical Clearance Form](#)

Kind Regards

This email has been sent from an unmonitored email account. If you have any comments or concerns, please contact the GIBS Research Admin team.