

T.C.
İSTANBUL TİCARET ÜNİVERSİTESİ
SOSYAL BİLİMLER ENSTİTÜSÜ
İŞLETME İNGİLİZCE DOKTORA PROGRAMI

**THE MEDIATOR ROLE OF MARKET OPPORTUNITY ON THE EFFECT
OF REGULATORY SUPPORT, ENTREPRENEURIAL MANAGEMENT,
AND TECHNICAL ABILITY ON GREEN ENTREPRENEURSHIP**

PhD Dissertation

Asad Ur Rehman

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Istanbul 2024

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Supervisor: Doç. Dr. Sabri ÖZ

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Ethic Statement

The thesis that I have prepared is an original work, and it is supported by YÖK and Istanbul Commerce University. It has been prepared in accordance with the Graduate Regulations. In addition, while conducting this study, scientific ethics. I fully abide by the rules; I cite all the sources I have used and no source. I declare that there is no detailed quotation that I have made. All matters contained in this thesis are my opinion and do not reflect the official opinion of Istanbul Commerce University.

Asad Ur Rehman

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First and foremost, I would like to express my deepest gratitude to my supervisor, Dr. Sabri Oz, for his unwavering support, guidance, and encouragement throughout my PhD journey. His insightful advice and constructive feedback have been invaluable, helping me navigate the complexities of this research with confidence and clarity. I am immensely grateful for the opportunities he has provided me and for his belief in my potential.

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Abstract

The purpose of this paper is to study how market opportunity mediates the impacts of regulatory assistance, entrepreneurial management, and technical aptitude on green entrepreneurship. Recognizing the growing relevance of sustainable business practices, this study seeks to better understand the factors that drive green entrepreneurship and how market possibilities might support these drivers. Structured survey questions were used to obtain data from Turkish entrepreneurs from a wide range of sectors and firm sizes. The findings show that all offered hypotheses are supported. Regulatory backing, entrepreneurial management, and technical aptitude all have a major beneficial effect on green entrepreneurship. Furthermore, market potential is discovered to be an important mediator, enhancing the favorable effects of these characteristics on green entrepreneurial activity. Specifically, the findings show that governmental backing provides the required structure and incentives for green efforts, whereas entrepreneurial management abilities enable the successful implementation of green business strategies. Technical ability, on the other hand, provides entrepreneurs with the knowledge required to create and deploy sustainable innovations. Policymakers should prioritize improving regulatory frameworks that promote green entrepreneurship by establishing clear norms, financial incentives, and support programs. Such guidelines will foster a more favorable climate for sustainable business operations. Entrepreneurs should invest in managerial and technical skills to improve their ability to recognize and capitalize on market possibilities. To better educate future entrepreneurs, educational institutions and training programs should stress sustainability and green business practices.

Key words: market opportunity, regulatory support, green entrepreneurship, entrepreneurial management ability, entrepreneurial technical ability, sustainability.

Özet

Bu çalışmanın amacı, piyasa fırsatının, düzenleyici yardımların, girişimcilik yönetiminin ve teknik yetkinliğin yeşil girişimcilik üzerindeki etkilerini nasıl aracılık ettiğini incelemektir. Sürdürülebilir iş uygulamalarının artan önemini kabul ederek, bu çalışma yeşil girişimciliği tetikleyen faktörleri ve piyasa fırsatlarının bu tetikleyicileri nasıl destekleyebileceğini daha iyi anlamayı amaçlamaktadır. Veriler, geniş bir sektör yelpazesi ve firma büyüklüğünden gelen Türk girişimcilerden yapılandırılmış anket soruları kullanılarak elde edilmiştir. Bulgular, sunulan tüm hipotezlerin desteklendiğini göstermektedir. Düzenleyici destek, girişimcilik yönetimi ve teknik yetkinlik, yeşil girişimcilik üzerinde önemli derecede olumlu etkiye sahiptir. Ayrıca, piyasa potansiyelinin bu özelliklerin yeşil girişimcilik faaliyetleri üzerindeki olumlu etkilerini artıran önemli bir aracı olduğu tespit edilmiştir. Özellikle, bulgular, hükümet desteğinin yeşil girişimler için gereken yapıyı ve teşvikleri sağladığını, girişimcilik yönetim becerilerinin ise yeşil iş stratejilerinin başarılı bir şekilde uygulanmasını sağladığını göstermektedir. Öte yandan, teknik yetkinlik, girişimcilere sürdürülebilir yenilikler yaratmak ve uygulamak için gerekli bilgiyi sağlamaktadır. Politika yapıcılar, net normlar, mali teşvikler ve destek programları oluşturarak yeşil girişimciliği teşvik eden düzenleyici çerçeveleri iyileştirmeye öncelik vermelidir. Böyle yönergeler, sürdürülebilir iş operasyonları için daha elverişli bir ortam oluşturacaktır. Girişimciler, piyasa fırsatlarını tanıma ve bunlardan yararlanma yeteneklerini artırmak için yönetsel ve teknik becerilere yatırım yapmalıdır. Gelecekteki girişimcileri daha iyi eğitmek için, eğitim kurumları ve eğitim programları sürdürülebilirlik ve yeşil iş uygulamalarına vurgu yapmalıdır.

Anahtar Kelimeler: Yeşim Girişimcilik, Sürdürülebilirlik, Pazar Fırsatları, Düzenleyici Destekler

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Abbreviations

CFA	Confirmatory Factor Analysis
EFA	Exploratory Factor Analysis
EMA	Entrepreneurial Management Ability
ETA	Entrepreneurial Technical Ability
GE	Green Entrepreneurship
MO	Market Opportunity
RBV	Resource Base View
RS	Regulatory Support

1. INTRODUCTION

Businesses of all sizes in market economies face constant disruption, shrinking lead times, and an explosion of entrepreneurial spirit. The greatest difficulty for businesses in the current economic situation is establishing and maintaining competitive advantages. It is widely acknowledged that the two most critical organizational capabilities for achieving and maintaining competitive advantages are a focus on the market and an emphasis on entrepreneurship.

The impact of rapid developments in information and communication technologies and the lowering of barriers to the circulation of labor, capital, and products with bilateral and multilateral agreements between countries, innovation has emerged as the competitive focus of companies and countries across the globe.

Since an entrepreneurial mindset includes attitudes and behaviors like innovation, risk-taking, and competitive aggression, these traits may increase the likelihood of discovering an undeserved market sector or creating a game-changing product. Similarly, entrepreneurship is an antecedent of market orientation. Moreover, as entrepreneurship generally represents a reaction of enterprises to future or anticipated market demands, it leads to both responsive and proactive market opportunity (MO).

The inefficient commercialization of scientific and technical advances, commonly referred to as Deep Technology or Deep Tech, is crucial to solving the most severe challenges of the current day, ranging from addressing climate change to developing sustainability. This study seeks to characterize the regulatory support of entrepreneurial management and entrepreneurial technical capacity to identify its link with the sustainability of the environment or green entrepreneurship.

Technological advancements in the digital sphere have the potential to spur both social and economic progress. As a result of digital innovation, the corporate sector has been transformed into one that relies heavily on big data and cutting-edge technology. Digital innovation is no longer limited to software companies; in fact, the world's top-valued corporations are all part of the digital economy. Digital innovation in the digital economy is difficult to produce because of the complexity and dynamic nature of the technology. Small and medium-sized enterprises (SMEs) are particularly affected by these difficulties. Small and medium-sized businesses (SMEs) can benefit from this technical advancement. SMEs in particular face a significant problem because of digital technology's impact on the business model of all enterprises. How small and medium-sized businesses (SMEs) approach digital transitions will determine whether they see it as an opportunity or a difficulty. When it comes to dealing with difficult issues and enhancing their technological knowledge, small businesses in the internet economy rely heavily on digital innovation (Ye et al., 2020). SMBs play an essential role in the digital economy, especially during times of structural upheaval. It is critical to examine how these businesses can thrive in the digital economy over the long term. An example of digital innovation is a new product or process, a new business model, or an IT-enabled innovation.

Digital innovation that is environmentally friendly, long-lasting, and organic is essential to the economy's digitization. A sustainable future can be achieved by this method. There are two types of digital innovation: one that is focused solely on performance and cost; the other that is focused on environmental and social considerations. All parties in the manufacturing and distribution process benefit from sustainable digital innovation, which is based on natural principles rather than technological ones, and also aims to eliminate resource waste while also addressing social as opposed to purely financial concerns (Yousaf et al., 2021).

The 4th Industrial Revolution has resulted in a considerable shift in the business structure, which is determined by digitalization. The industrial revolution was sparked by social and economic changes that led to technological advancements. Things like the Internet of Things, artificial intelligence, robotics, self-driving cars, cloud computing, big data, virtual and augmented reality, 3D printing, and the blockchain are all part of what's fueling the 4th Industrial Revolution. Most of its advancements are focused on the service sector, while items that can profit most from 4th Industrial Revolution advancements are those that have had high transportation, logistics, information, regulation, and transactional costs in the previous revolutions. Factors such as a company's ability to innovate and its ability to divide innovative labor and digital control have previously been recognized as indicators of a company's ability to innovate and its ability to divide creative labor (Borges et al., 2021). Some essential and influential antecedents to sustainable digital innovation have been missed, including the Internet of Things (IoT), a platform for digital innovation, and digital orientation.

The environmental concern is the biggest concern of time since it has become an alarming trigger for the current time and several factors are to blame for it, industrial and economic development being one of them. Business models in the digital era work as both the calculative and narrative approaches for bringing deep technological advances and innovations by building up new networks as well as new ventures (Zhao & Collier, 2016).

In today's globalized world, it is very easy for individuals or consumers to have the products they want. Due to rapid growth and changing environment, human demand changes every day along with the quality and quantity of consumer goods (Liliya Satalkina, 2020). The changing choices of the consumers provide the entrepreneurial structures to gain opportunities in the market and this foster the economic growth.

With the continuous growth of economies to fulfill the social needs of a framework, the expense id bore by the environment (Zhigir, 2021). This is because the economic development and advancement have been inconsiderate about the environmental concerns and the effects of such are witnessed now, for example, the industrial revolution, the age of the computer etc. (Nambisan, 2017)

With the innovation and technological advancements, deep technology has emerged as a dominating field (KYRGIDOU, 2017). This invention of the digital technologies has managed to transform the nature of uncertainty that comes in entrepreneurial procedures and results as well as the manner of dealing with these uncertainties. Consequently, it led towards the origination of an important questions on the intersection of digital technologies and entrepreneurship or more vivid and new -on digital entrepreneurship. Two broad implications are considered which are less framed entrepreneurial procedures and results along with the less predefined loci of entrepreneurial agency (Hasnain Zaheer, 2019).

For companies that operate on sustainability, lesser access to market opportunities and challenges results in reduction in their ability to effectively produce and showcase an impact at scale (Wagner, 2011). Incorporation of environment considerate measures in the development of deep technology refers to the adoption of environmentally friendly strategies without foregoing the potential growth (Mike Wright, 2020). Sustainable deep technology growth refers to the adoption of strategies to take benefit from them in the current times, without being on the expense of the future generations (William F., 2007).

One of the many key causes of degradation of the environment and inconsideration of the measures of adoption of environmentally friendly management in the economies is of low level due to the absence financial support for environmental costs, along with the pointers required for

the management of procedures towards an environmentally friendly approach of development that is aimed towards sustainability (Gerlach, 2001). It has been established based on prior research that these procedures that require financial planning for the adaption and incorporation of green entrepreneurship for the production of economic as well as organizational ambiance to ensure efficient utility of financial resources while taking care of the surroundings and environmental sustainability. The proliferation of entrepreneurship comes with the association with the determination resources and volumes of monetary resources, the funds aggregation or accumulation, making sure about the necessary dimensions for the distribution and utility of monetary resources which results in providing a stimulus for the effective and efficient use of the available monetary resources (Zhigir, 2021).

The planning of the financial resources in a way that the technical abilities and the managerial abilities of the entrepreneurs are wholesomely incorporated means that it helps in the creation of market opportunities in the discussed sector. As for now deep technology is an emerging sector that is on its way towards the development, which includes our discussion that the provision and creation of a suffice level of opportunities would enable the companies to develop in the digital era without compromising on the sustainability of the environment.

The association between environmental practices involving the supply side of the business and the overall performance of the firm is a contentious subject (Masocha, 2018). This contributes towards the hindrances in the development of the overall effective framework which is considerate of the factors of sustainability of the environment in an overall operational strategy. 'In the context of organizational transformation, innovation involves small-scale research and experimentation in products and services as well as social and organizational aspects that can lead to new business models. These innovations are more complex, but offer far greater potential to achieve more

ambitious sustainability-focused goals than incremental sustainability-focused innovations.’
(Adams, et al., 2013)

Deep technology has provided the economies with a whole new dimension of development and innovation which can multiply the effect of growth by incorporating the strategies of sustainability to take benefit from the present resources without putting the future on stake. Stuart Hart has presented approaches of such incorporation in his work, and it quotes as, ‘future strategy and competitive advantage will be based on our ability to contribute to environmentally sustainable economic activity’ (Hart, 1995).

1.1. Problem of Research

Sustainability is a potent tool in the aspects of creating value to businesses and is a deriving momentum for innovation. Being an emerging field in the entrepreneurial shifts, the deep technology enterprises are more focused on the measures of cost reduction, compliance and building up brand images (Phil Metz, 2016).

In addition to this, entrepreneurs not only focus on the development of the brand images but also worry about the compliance with regulatory authorities. The provision of the regulatory support to these technology-based entrepreneurs would develop a feeling of security and ease which promotes the industry entry of further businessmen while creating opportunities in the market. Market opportunities in such framework develops competitive advantage and removes industry barriers for newer entry (Parker, 2014). Sustainability driven innovation opens an untapped opportunity for the industrialists (Melville, 2010).

Considering environmental issues, unfulfilled social requirements, and the worldwide economic crisis, a new kind of business has emerged: the green business. Green economies, green

markets, and green businesses are all names for the same thing. Western governments have put green entrepreneurship at the top of their monetary policy agendas because of its importance in generating new jobs and fostering economic growth. As (Gibbs, 2016) have pointed out, facilitators and development have become more prominent goals for politicians.

Ecologically sustainable technologies represent the future of the economy. In response, there has been a global push for "green entrepreneurship," a strategy considering economic and environmental factors. The success or failure of technical innovations is sometimes determined by how well the public receives them. Many people have been advocating for eco-friendly practices for quite some time. The demand for sustainable goods and services has skyrocketed recently as the public has grown more aware of sustainability as a vital issue. (Cai, 2017) looked into the hypothesis that "green" branding might encourage M&A activity among makers of eco-friendly furniture. The environment, society, and the bottom line all intersect in the context of green business.

The three main lines of inquiry in the literature consider entrepreneurship as an antecedent to market orientation, as a mediator between regulatory support, entrepreneurial management, and technical ability in green entrepreneurship as an outcome of these relationships.

1.2. Objective of the study

The objective of this paper is to analyze the impact of regulatory support, entrepreneurial management ability and entrepreneurial technical ability on the green entrepreneurship and understand the conceptual framework of this theory.

- To evaluate the impact of regulatory support on the green entrepreneurship.

- To evaluate the impact of entrepreneurial management ability on the green entrepreneurship.
- To evaluate the impact of entrepreneurial technical ability on the green entrepreneurship.
- To examine the impact of market opportunity on the relationship of regulatory support, entrepreneurial management ability, entrepreneurial technical ability, and green entrepreneurship.

1.3. Research question

Based on the objective of the study and problem statement, the purpose of this research to seek the answer to the following question

- What is the impact of regulatory support on the green entrepreneurship?
- What is the impact of impact of entrepreneurial management ability on the green entrepreneurship?
- What is the impact of impact of entrepreneurial technical ability on the green entrepreneurship?
- Does market opportunity mediate the relationship of regulatory support, entrepreneurial management ability, entrepreneurial technical ability, and green entrepreneurship?

1.4. Theoretical Background

At its core, green entrepreneurship promotes the adoption of sustainable business practices in order to decrease environmental effect and contribute to the global sustainability agenda (Cohen, 2007). The purpose of this study is to look at the function of market opportunity as a mediator in the interaction between regulatory assistance, entrepreneurial management, entrepreneurial technical skill, and green entrepreneurship.

Fundamentally, regulatory assistance is critical in encouraging green entrepreneurship. Governments, by providing incentives and subsidies, not only help to make sustainable firms financially viable, but also help to create a favorable market environment (York, 2010). According to (Dean, 2007), regulatory assistance may inspire creative solutions to environmental concerns by supporting entrepreneurial activities that increase market prospects.

Market potential is a major motivator for green business. It is an external factor that enables entrepreneurs to find possible long-term solutions to market need (Short, 2010). Entrepreneurs may effectively apply sustainable business methods when there is a market opportunity, which is frequently affected by legislative backing. As a result, it is proposed that market opportunity may act as a moderator in the link between regulatory assistance and green entrepreneurship.

Furthermore, entrepreneurial management skills contribute greatly to green entrepreneurship. It entails good resource management, creative corporate tactics, and decision-making ability (Ireland, 2003). Such entrepreneurial skills are required to recognize and capitalize on market possibilities, hence promoting sustainable company practices. However, the emergence of realistic market prospects may have a major impact on the link between entrepreneurial management and green entrepreneurship.

Furthermore, technical aptitude is an essential component of the entrepreneurial process, particularly in green entrepreneurship. Entrepreneurs must have technical abilities in order to embrace and execute environmentally friendly technology and creative sustainable solutions (Gibbs, 2016). While technical aptitude is the cornerstone of green entrepreneurship, the availability of market possibilities may decide how successful these technical abilities are in encouraging green business.

This study also considers the growing acknowledgment of the importance of sustainability in the corporate sector. (Elkington, 1997) triple bottom line idea emphasizes the significance of establishing sustainability via economic, environmental, and social balance. As a result, green entrepreneurship looks to be a feasible strategy, combining economic growth with environmental protection. Regulatory support and entrepreneurial skills, together with market possibilities, might strengthen this paradigm and contribute to the larger sustainability goal.

In a complicated interaction, regulatory authorities, entrepreneurs, and markets coexist. Environmental entrepreneurship is encouraged by regulatory assistance, but its impact is seen more in the existence of market possibilities that motivate the use of entrepreneurial management and technical abilities (Pacheco, 2010). Entrepreneurs, as change agents, take use of market possibilities to promote environmental sustainability.

Similarly, entrepreneurial management and technical competence, although intrinsically influential, may have a big influence on green entrepreneurship when market possibilities exist. These chances provide a platform for entrepreneurs to apply their management and technical talents to the running of long-term businesses (Muñoz, 2018). Market possibilities can encourage entrepreneurs to adjust and align their strategy and technical skills toward green entrepreneurship.

As a result, this research contributes to a comprehensive paradigm in which market opportunities mediate the influence of regulatory support, entrepreneurial management, and technical skill on green entrepreneurship. As a result, it is well positioned to provide a complete knowledge of the interactions between these factors, as well as their cumulative contribution to sustainable entrepreneurship.

2. LITERATURE REVIEW

This chapter includes a bibliometric analysis, historical context, and a thorough literature evaluation. The bibliometric study provides a quantitative evaluation of the current research environment, highlighting major trends, influential authors, and essential publications in the subject. The historical background section examines the growth of green entrepreneurship, highlighting key milestones and changes that have affected its current direction. Finally, the literature review summarizes previous research, providing a critical assessment of theoretical and empirical studies on regulatory assistance, entrepreneurial management, technical aptitude, and market opportunity in the context of green entrepreneurship.

2.1. Bibliometric Analysis

This bibliometric study investigates the scholarly research landscape on the mediator function of market opportunity in the context of green entrepreneurship, with a particular emphasis on the impacts of regulatory assistance, entrepreneurial management, and technological capability. The analysis used the Web of Science database, using the following search parameters: TI=(Entrepreneurship) AND (TS=("market opportunity") OR TS=("Regulatory Support") OR TS=("Entrepreneurial Management Ability") OR TS=("Entrepreneurial Technical Ability") OR TS=(green) OR TS=(sustainability)).

The bibliometric study gives a thorough assessment of the present status and trends in research on the mediator function of market opportunities in green entrepreneurship. It identifies significant areas of interest and prospective future study topics, highlighting the value of multidisciplinary collaboration as well as the necessity for varied and vigorous research methodologies to develop the discipline.

Figure 1 Co-authorship Network of GE Research (2016-2022)



The figure 1 depicts a co-authorship network in green entrepreneurship research from 2016 to 2022, built using VOSviewer. Nodes indicate writers, with sizes according to publication counts and hues ranging from blue to yellow suggesting publishing timelines.

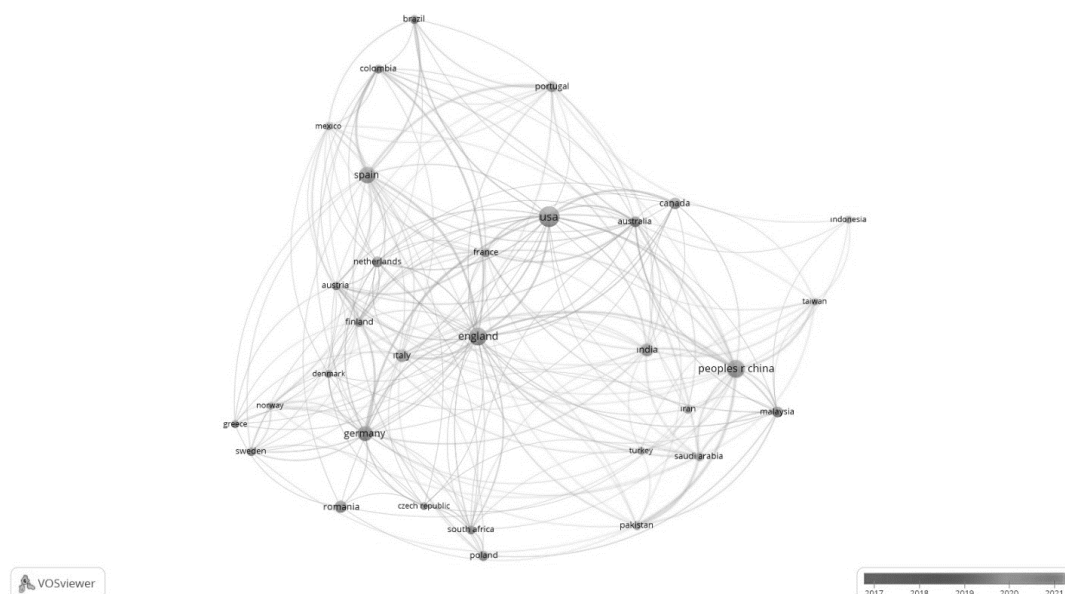
The offered picture is a network visualization built with VOSviewer that depicts the co-authorship links between scholars in the field of green business. Each node represents an author, and the lines linking them represent co-authorship relationships, which reflect joint research activities. The size of each node corresponds to the number of publications by that author, while the color gradient from dark grey to light grey shows the temporal aspect of their writings, with dark grey suggesting earlier articles (around 2016) and light grey representing more current publications (up to 2022).

Stefan Schaltegger and Marcus Wagner are centrally located with bigger nodes, suggesting that they are famous writers who have made major contributions and collaborated in the area. Their nodes are tinted dark grey, indicating that they have been active for a longer time.

Maria Urbano and David Urbano these writers also have important positions, demonstrating their significant contributions and teamwork. Light grey nodes indicate more recent additions to the literature by authors such as Patrick Gregori and Lahcene Makhoulfi. This temporal gradient facilitates the identification of newer authors and rising research trends in the subject.

This graphic presents a detailed picture of the collaborative ecosystem in green entrepreneurship research, highlighting notable authors, collaboration patterns, and time trends. This data is useful for understanding the dynamics of research networks and directing future collaborative efforts to develop the area.

Figure 2 Research Collaboration Network in GE (2017-2021)



Created by: VOSviewer

The figure 2 shows a global research partnership network in green entrepreneurship from 2017 to 2021, generated with VOSviewer. Each node represents a nation, with node size reflecting publication volume and a color gradient ranging from blue to yellow signifying the chronology of collaboration.

The offered image is a network visualization made with VOSviewer that depicts international collaboration across nations in the field of green entrepreneurship. Each node represents a country, and the lines linking the nodes represent co-authorship relationships, which show international collaborative research activities. The size of each node corresponds to the number of publications from that country, while the color gradient from dark grey to light grey represents the temporal aspect of their research output, with dark grey indicating older publications (circa 2017) and light grey indicating more recent publications (up to 2021).

This image depicts the United States (USA) and China (Peoples Republic of China) as key nodes with extended linkages to other nations, highlighting their important contributions and global partnerships in green entrepreneurship research. The USA, represented by a bigger node, emphasizes its significance and substantial international research collaborations, particularly with Canada, England, and Australia. Similarly, China emerges as a prominent participant with strong linkages to a number of nations, highlighting its expanding impact in this study field.

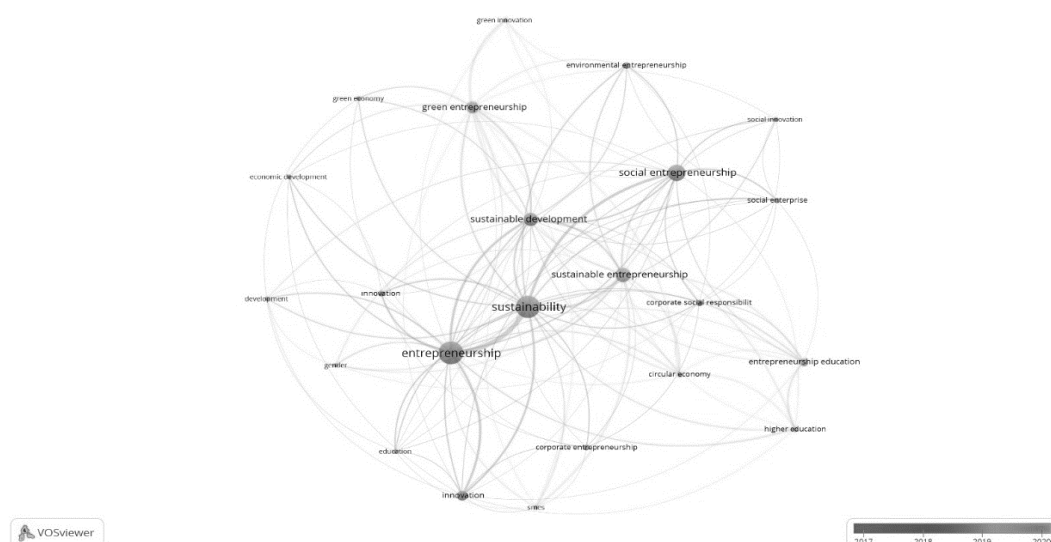
Countries like Spain, Germany, and England are likewise well-connected, indicating that they actively participate in global research networks. Spain and Germany, in particular, have strong connections with both European and non-European nations, highlighting the worldwide

scope of their research endeavors. Notably, Spain's linkages extend to nations such as Brazil and Colombia, showcasing cross-continental cooperation.

The temporal color gradient shows that certain nations, such as Pakistan, Saudi Arabia, and Turkey, have made more recent contributions to the study field, as evidenced by their yellow nodes. This shows that these nations are becoming active contributors to the green entrepreneurship literature. In contrast, nations such as the United States, England, and Germany have a longer history of contributions, as seen by their dark grey nodes.

This network map also emphasizes the collaborative aspect of green entrepreneurship research, with multiple lines connecting different nations. European nations such as France, the Netherlands, Italy, and Finland demonstrate great intra-European collaboration while also interacting with worldwide partners. Countries in Asia, such as India, Indonesia, and Malaysia, are connected to both regional and worldwide research networks, reflecting a diversified and growing research environment.

Figure 3 Keyword Network in GE Research (2017-2020)



Created by: VOSviewer

The figure 3 depicts a term co-occurrence network in green entrepreneurship research from 2017 to 2020, created with VOSviewer. Nodes indicate keywords, with size suggesting frequency and colors ranging from blue to yellow denoting the order in which they appear.

Each node represents a keyword or research subject, and the lines linking the nodes indicate co-occurrences in academic papers, demonstrating the topics' interconnection. Each node's size is proportionate to its frequency of occurrence, while the color gradient from dark grey to light grey shows the temporal aspect of the research output, with blue suggesting older research (around 2017) and yellow showing more current studies (up to 2020).

Central nodes like "sustainability" and "entrepreneurship" are clearly shown, emphasizing their critical functions and wide linkages to other themes. These fundamental connections indicate that sustainability and entrepreneurship are key ideas that drive most of the research in this field. Surrounding these major nodes are clusters of similar subjects, each creating a unique yet interrelated subfield.

One significant cluster contains phrases such as "green entrepreneurship," "green economy," and "green innovation." This cluster emphasizes the environmental elements of entrepreneurship, namely how economic activities may be connected with ecological sustainability. Another prominent cluster is "social entrepreneurship" and "social innovation," which demonstrate the incorporation of social impact issues into the entrepreneurial environment and are strongly related to "sustainable development."

The cluster of "corporate social responsibility" and "sustainable entrepreneurship" emphasizes the role of business activities in promoting sustainability. Within this cluster, terms such as "circular economy" and "corporate entrepreneurship" suggest a preference for business structures that prioritize resource efficiency and long-term viability.

This graphic depicts the multidisciplinary and developing nature of green entrepreneurship research, emphasizing how the key principles of sustainability and entrepreneurship are related to numerous subfields. It gives insights into the major topics, developing trends, and dynamic interplay between diverse study fields, as well as a thorough overview of the academic scene in this discipline.

These visualizations highlight the multifaceted and developing character of green entrepreneurship research, which includes strong international partnerships, important key academics, and a wide range of interrelated study subjects. The analysis emphasizes the relevance of sustainability and entrepreneurship as important topics, while also highlighting new trends and possibilities for further research.

2.2. Historical Background

Schumpeter's theory of economic development (Schumpeter, 1934) is fundamental, arguing that entrepreneurs drive economic change via innovation and creative destruction. Schumpeter's view of the entrepreneur as an innovator disturbing market equilibrium is critical to understanding the dynamics of entrepreneurial management and the importance of innovation in business endeavors.

(Baumol, 1990) thesis expands on this by highlighting the importance of institutions in determining entrepreneurial results. Baumol distinguished between productive, unproductive, and destructive entrepreneurship, claiming that the institutional background, particularly regulatory frameworks, has a substantial impact on the direction of entrepreneurial endeavors. This viewpoint is critical for understanding how regulatory assistance might help or hinder green entrepreneurship.

(Elkington, 1994) triple bottom line concept has a considerable impact on the integration of sustainability into entrepreneurial operations, since it broadens the definition of corporate success to include social and environmental performance in addition to financial objectives. This paradigm has had a significant influence on corporate practices and regulatory regulations, prompting the creation of supportive mechanisms such as subsidies, tax breaks, and grants to promote sustainable company practices (Porter, 1995). Regulatory assistance appears as a critical aspect in shaping the landscape of green entrepreneurship by fostering sustainable innovation.

(Kirzner, 1973) idea of entrepreneurial awareness sheds more light on how entrepreneurs discover and seize chances. Kirzner's work emphasizes the necessity of perception, awareness, and action in the entrepreneurial process, which is especially essential for green entrepreneurs functioning in marketplaces shaped by environmental rules and shifting customer preferences.

The resource-based view (RBV) of the company, defined by (Barney, 1991), provides a theoretical framework for understanding the role of technical skill in gaining a competitive advantage. According to RBV, a company's unique resources and competencies may be used to produce value and maintain a competitive edge. Technical skill is crucial in green entrepreneurship for generating creative solutions to environmental concerns, which opens up new market prospects and strengthens the firm's competitive position (Hart, 1995).

(Teece, 1997) created the dynamic capabilities framework, which expands on RBV by highlighting the necessity for enterprises to adapt, integrate, and reconfigure internal and external skills in response to quickly changing surroundings. This paradigm is especially pertinent to green entrepreneurship, as market circumstances and regulatory environments are always changing. The capacity to flexibly adapt to these changes is critical for seizing market possibilities created by regulatory support and technology improvements.

Entrepreneurial management methods, which are inspired by strategic management ideas, place an emphasis on identifying and capitalizing on market possibilities. (Drucker, 1985) underlined that the essence of entrepreneurship is the methodical pursuit of possibilities, regardless of the actual resources available. In the context of green entrepreneurship, this entails spotting possibilities created by environmental restrictions, changing customer tastes, and technical improvements. Effective entrepreneurial management entails not just spotting these possibilities, but also effectively allocating organizational resources to capitalize on them.

Empirical research supports these theoretical insights. Studies like those by (Hockerts, 2010) demonstrate that sustainable entrepreneurship often involves pioneering efforts to create new markets and influence regulatory frameworks. Their findings suggest that successful green entrepreneurs can navigate complex regulatory landscapes, leverage technical expertise, and effectively manage their ventures to capitalize on sustainability-driven market opportunities.

2.3. Regulatory Support

As a fundamental concept of social interaction, many different sectors have embraced the regulatory support. The term "regulatory support" encompasses the official and informal rules or

incentives that limit and standardize an individual's actions. According to (Valdez, 2013), the regulatory support's primary role is to create norms and enforce compliance with those norms, whether via incentives or sanctions. Quite a few experts have established in the published. Rules and regulations have a significant role in limiting and standardizing human actions.

For instance, (Wan, 2014) discovered that the public in Hong Kong cares about the efficiency of government policies encouraging environmentally friendly actions. It was also proven by (Zhang, 2014) that monetary incentives from the government encourage people to adopt "green" practices. Residents' perceptions of the regulatory environment significantly affect their motivation to engage in trash segregation, according to research presented by (Xu, 2017). Even more importantly, the regulatory setting would play a major role in deciding the initiative taken by businesses. Individuals' propensity to engage in environmentally responsible conduct is strongly influenced by how they see the regulatory climate. According to research by (Estrin, 2013), "green entrepreneurship" (social entrepreneurial initiatives) may flourish in an enabling institutional setting. Similarly, (Pathak, 2016) argue that a favorable regulatory climate paves the way for successful entrepreneurship.

As part of running a business, legal difficulties will arise for any company. Furthermore, it seems to reason that business interests would want a regulatory environment that works to their advantage. However, some businesses choose to operate in a field where there is considerable legal ambiguity, a need for new rules to make goods practical or lucrative, or a legal constraint that makes the continued operation of the firm unlikely. In many cases, the political involvement of these corporate owners is crucial to the success of their ventures. These corporations' primary focus is on influencing legislative processes. We call those who engage in this kind of economic activity

"regulatory entrepreneurs," and the enterprises themselves fall under the category of "regulatory entrepreneurship." It is not a new concept, but the current rise of startup and technology firms has brought regulatory entrepreneurship to the forefront. Companies have been active in American politics since at least the 19th century.

There is a massive annual expenditure of billions of dollars on lobbying activities by U.S. businesses and their trade groups. Although there are some similarities between regulatory entrepreneurship and traditional forms of corporate political involvement, there are also key distinctions that set the former apart. Corporate lobbying has often functioned as a defensive activity. Businesses have been trying to shield themselves from rivals for decades. The rise of the regulatory state and the government's expanding role in the economy has led to a corresponding rise in corporate politicking as businesses battle to limit the impact of new regulations on their bottom lines and, if possible, to capture regulators and use them as a weapon to stifle competition.

However, traditional corporations have and will likely continue to engage in political activity with the primary goal of safeguarding their present revenue streams. Businesses that have tried to influence legislation have often done so in a way that shields or expands already-legal, lucrative industries. Energy firms actively engage in policy-related lobbying. Manufacturers of automobiles are resistant to regulations requiring them to improve their vehicles' fuel economy. Corporations that profit from pesticides oppose laws that seek to limit their usage. Many such instances might be cited. However, they are not examples of entrepreneurial regulation. In each of these examples, the impact of legal reform on the enterprises' operations has been minimal and negligible. Entrepreneurs in the regulatory space operate under unique conditions. They go into industries where they know that altering the law will be essential to their success (or even their

legality) as a corporation. Reforming the legal system is not a side endeavor but rather an integral aspect of the company's overall strategy. Direct distribution, in which a company sells its products without going via a middleman (the dealer), is illegal in many jurisdictions where automobiles are produced. These regulations were passed at the state level to shield auto dealers from liability, and they make it difficult for automakers to fire a dealership for lousy service or salesmanship. Despite repeated efforts by significant automakers to weaken them, these regulations have remained in place for nearly half a century.

Tax breaks are a popular type of regulatory support for green entrepreneurship. Governments offer tax credits or deductions to enterprises who invest in renewable energy, clean technologies, or sustainable practices. According to (Mazzucato, 2017), tax incentives are an excellent instrument for boosting green entrepreneurship and can lead to higher investment in sustainable practices. Similarly, (OECD, 2019) discovered that tax breaks can assist offset the high initial expenses of investing in green technology and boost the adoption of sustainable practices.

Another type of regulatory assistance for green entrepreneurship is subsidies. Governments subsidize enterprises that create or utilize renewable energy or environmentally friendly products. According to a study conducted by (Luthra, 2018), subsidies can be an effective instrument for fostering green entrepreneurship and leading to higher investment in sustainable practices. Similarly, (Qu, 2020) discovered that subsidies can assist lower the financial burden of investing in sustainable practices, encouraging more enterprises to do so.

Grants are a common type of regulatory assistance for green entrepreneurship. Grants are provided by governments and non-governmental organizations to fund the research and development of innovative technologies and products that improve environmental sustainability.

According to (Parris, 2003), funding can lead to the creation of new technologies and products that enhance environmental sustainability. Similarly, (OECD, 2019) research discovered that grants may be a crucial source of capital for green entrepreneurs, particularly in the early phases of firm growth. Furthermore, a common type of regulatory assistance for green entrepreneurship is loan guarantees. Governments guarantee loans to companies who invest in ecologically beneficial initiatives. According to a study conducted by (Chang, 2021), loan guarantees can lower the risk of lending for financial institutions and encourage them to engage in green enterprises. Similarly, according to (OECD, 2019), loan guarantees can assist green entrepreneurs in overcoming the hurdles of getting funding, which is crucial for scaling up their enterprises.

Finally, procurement policies are a type of regulatory assistance that encourages government agencies and private sector businesses to implement sustainable practices. According to (Jamali, 2017), procurement rules may generate market demand for sustainable products and services, hence encouraging green entrepreneurship. Similarly, an (OECD, 2019) discovered that procurement regulations may establish a stable market for sustainable products and services, encouraging enterprises to embrace sustainable practices. Regulatory assistance is crucial in supporting green entrepreneurship and the adoption of sustainable business practices. Tax breaks, grants, loan guarantees, and procurement rules are all excellent instruments for supporting green entrepreneurship and may assist in overcoming financial and commercial hurdles to the adoption of sustainable company practices.

2.4. Entrepreneurial Management Ability

New goods, technology, and methods may be developed via R&D and innovation, as shown by a study of a manager's psychological traits. Research on management ability is crucial

to describe the connection methodically and concretely between a manager's traits and management success. Managing directors may get insight into guiding their company's future by assessing their performance in certain areas. Because early-stage SMEs are not yet well-structured, they have a limited capacity for producing outcomes that align with their capabilities. Management skills change over time and between disciplines, but having strong technical knowledge, strategic mind power, and solid organizational chops are essential. Entrepreneurs require a whole lot of competencies and skills to effectively manipulate an enterprise. Thus, entrepreneurial skills are the essential traits possessed through someone which offer upward thrust to or bring about new assignment creation, survival, and growth (Bird, 1995).

The ability to establish and run a firm on one's own, although indeed a valuable skill, is simply one of several ways entrepreneurs boost economic growth. Since the primary goal of most entrepreneurs is to make a profit, their activities have a direct and substantial impact on the national economy. One of the most crucial requirements for starting a business is this. Further to those competencies, any commercial enterprise founder should anticipate 3 important roles-entrepreneurial, managerial, and purposeful roles at the same time as managing his or her commercial enterprise (Chandler, 1992).

In addition to boosting GDP, entrepreneurs create jobs that lower unemployment and raise people's living standards. This is because an increase in employment levels always leads to an increase in both personal and national income.

In ways countries don't need rely on western-produced products because of the enterprising businesspeople in the economy who see the need for these items among the general populace. This aids the economy by keeping money from leaving the nation. In addition to helping the economy,

exporting surplus commodities to nations with a need for them helps bring in much-needed foreign currency.

One of the reasons why entrepreneurship is so important is that it helps to uncover and cultivate untapped talent throughout the nation. Given in their world countries with massive populations, this is more crucial than ever. When this happens, it contributes to the country's economic development. As a result, the economy benefits from a higher level of life.

Management is the practice of leading others to accomplish goals and objectives. An entrepreneur is someone who launches a business with the primary goal of making a profit. It also requires a high tolerance for danger to succeed in that endeavor. (Rae, 2007) consents that each an entrepreneurial and managerial skill set are required to run and hit project and conceptualizes those as 'entrepreneurial management ability'. The bond between an executive and a business owner. Therefore, entrepreneurial management ability requires innovative imagination and foresight, the emergence and confirmation of speculation, cunning pragmatism and subtle human skills. Skills deemed necessary are unevenly distributed among people. For example, someone who's great at "studying tea leaves" or imagining what's at the bottom of a cup might be able to identify and/or shape future trends but may not be well suited to disseminating this creative and foresight. for the company's broad audience. but they are increasingly (J.Teece, 2016).

The managerial skills literature makes a specialty of 3 leader basic element. First, there is management awareness, intellectual methods and guidance that shape and implement manual selection, for example by determining which know-how is important in each situation. (Kaplan, 2008). The second detail is managerial social capital, the network of individuals and family members of the business that leaders have both outside and inside the company, critical to the

organization's access to records and resources. (Blyler, 2003). The latter is managed human capital, the knowledge, experience and abilities that a person may possess in order to remain on the job. (Carpenter, 2001).

2.4.1. Opportunities for Long-Term Innovation

The capacity to discover possibilities for sustainable innovation is a fundamental talent necessary for successful green entrepreneurship. To find possibilities for sustainable innovation, green entrepreneurs must have a thorough awareness of sustainability concerns and market trends. They must also be able to assess the viability of these prospects and create a business strategy that takes into account the financial, social, and environmental implications of their initiative.

Green entrepreneurs, according to (Delgado, 2019), must be able to analyze the sustainability difficulties confronting their business and find areas where sustainable innovation may provide economic value while reducing negative environmental and societal repercussions. A green entrepreneur in the fashion business, for example, may explore potential for sustainable production processes or produce sustainable fashion goods that decrease waste and promote recycling.

2.4.2. Secure Funding

Green businesses sometimes confront unique financing issues since sustainable operations may necessitate greater upfront expenses and longer payback periods. Green entrepreneurs, according to (Qu, 2020), must be able to explain the value of their sustainable practices to potential investors and seek money from a range of sources, such as government grants, impact investors, and crowdfunding platforms. Green entrepreneurs may be able to access specialist funds and impact investment networks that encourage sustainable practices in addition to standard forms of

finance. The Global Impact Investing Network (GIIN), for example, is a non-profit organization that links investors with sustainable investment opportunities and supports impact-driven businesses.

2.4.3. Effective Resource Management

Effective resource management is also a necessary skill for green entrepreneurial success. Green entrepreneurs, according to (Luthra, 2018), must be able to efficiently manage resources in order to avoid waste and optimize the environmental and social consequences of their company. This covers the management of energy, water, and other natural resources, as well as the development of sustainable supply chains and the management of waste and pollution. Green entrepreneurs can use a variety of resource management tactics, such as implementing energy-efficient practices, purchasing materials from sustainable sources, and designing closed-loop manufacturing processes that reduce waste and pollution. Interface, for example, has implemented a closed-loop production method that recycles old carpets into new ones, eliminating waste and supporting sustainable practices.

2.4.4. Navigating Complex Regulatory Environments

To promote sustainable practices, green entrepreneurs must be able to negotiate complicated regulatory systems and form collaborations with stakeholders. Green entrepreneurs, according to (Jamali, 2017), fully understand the regulatory framework and stakeholder expectations related to sustainability, and form partnerships with suppliers, customers and other stakeholders to promote sustainable practices throughout the value chain.

To promote sustainable practices, green entrepreneurs can work with a variety of stakeholders including suppliers, customers and legislators. Unilever, a consumer products corporation, for example, has formed relationships with suppliers to encourage sustainable sourcing standards and has collaborated with lawmakers to support sustainable development legislation.

2.4.5. Comparing the Roles of an Entrepreneur and a Manager

A manager need not be an entrepreneur. However, the two have certain commonalities. Management and entrepreneurship share the necessity for decisive leaders at all levels of an organization.

Entrepreneurial capabilities are pretty one of a kind from the ones of the normal supervisor. The general supervisor oversees the ongoing execution of established processes, including scheduling and contract meetings, quality and productivity improvements, and ongoing revision of the commercial enterprise version. Although there are innovative elements to these operations, managing the operations of an established commercial enterprise is relatively easy. However, commercial enterprises that remain viable in hostile environments are on the verge of extinction. Entrepreneurial managers had to manage organizations in all aspects of development and production. (J.Teece, 2016).

Both the manager and the owner must have excellent people abilities. This is essential if they want to win over the support of others and get them on board. On top of that, it ensures that harmony and order are preserved inside the business.

It would help if you had the same self-assurance an entrepreneur must succeed in management. This self-assurance attracts talented individuals who want to be a part of the company's success.

If business owners did not exist, managers would have nothing to do. So, while managers focus on keeping things running smoothly, entrepreneurs focus on creating something new. Entrepreneurship is essential whenever there is a social demand that the current market leaders are not supplying. When a gap in the market exists, company owners may seize it by creating a product or service to fill it. In the same way that new firms in the marketplace are encouraged by governments, governments themselves are encouraged by new enterprises. To operate legally, a company must comply with the tax laws of each state in which it does business. The government also benefits from this sector via the license fees it collects from commercial enterprises. A business license is required for all operations inside the nation. Any legitimate company must comply with this legal requirement.

Entrepreneurial management ability is crucial to green entrepreneurship success. Green entrepreneurs must be able to recognize possibilities for sustainable innovation, get investment, successfully manage resources, and negotiate complicated regulatory contexts and stakeholder expectations in order to promote sustainable practices. To be successful in green entrepreneurship, entrepreneurs must have a thorough awareness of sustainability issues and market trends. Green entrepreneurship is a new industry that needs a distinct set of skills and expertise for success. Green entrepreneurship is anticipated to continue to play a vital role in supporting sustainable development and tackling environmental concerns as the world focuses more on sustainability and climate change.

2.5. Entrepreneurial Technical Ability

A company's innovation strategy and the long-term success that stems from innovation activities can only thrive with the help of employees with strong technical skills. Learning, Research and Development, Resource Allocation, Production, Organizational Capability, and Strategic Planning Capability are the six pillars upon which a company's technical capability rests.

Entrepreneurial technical aptitude is critical to the success and impact of green entrepreneurship activities. This ability includes entrepreneurs' knowledge, abilities, and competences in identifying, understanding, and leveraging technology advancements that contribute to long-term solutions. The literature emphasizes three fundamental components of entrepreneurial technical skill that are important in encouraging green entrepreneurship.

The capacity to detect and assess developing green technology is one component. Entrepreneurs with excellent technical skills are well-equipped to stay current on advances in renewable energy, waste management, sustainable materials, and other important sectors. They may see the potential of these technologies to address environmental concerns and integrate them into their business models by remaining educated. (Hockerts, 2010) discovered this ability to identify and embrace green technology in their study on the application of sustainable practices in small and medium-sized organizations (SMEs).

Entrepreneurial technical skills also allows entrepreneurs to produce environmentally friendly and commercially feasible sustainable solutions. This skill entails using technical understanding to improve resource use, limit waste output, and lessen the environmental impact of corporate operations. Entrepreneurs may provide value for customers while reducing environmental impacts by incorporating sustainable practices into their goods, services, and

operations. According to (Hessels, 2008), technical knowledge and skills are critical in supporting the adoption of environmental technology in new companies.

In addition, entrepreneurial technical skills assists entrepreneurs in overcoming technological constraints and problems related with green entrepreneurship. Developing and expanding green technology frequently needs knowledge of engineering, materials science, and energy systems. Entrepreneurs with a solid technical basis can negotiate these difficulties, cooperate with technical specialists, and enhance their inventions. Their capacity to comprehend and handle technological complexity aids in the effective implementation and marketing of long-term solutions.

In today's world, business and technology develop concurrently. There are several ways in which businesses may use technological advancements for the benefit of society. Technology, therefore, is how one may maximize return on investment. Hardware and software expenses in a company have been seen to decrease with time because of a growth in the variety of competitors. As more and more powerful, cost-free resources become accessible, the rivalry among new businesses is heating up. When governments in less developed nations encourage and fund digital innovation and entrepreneurship, new enterprises with fresh perspectives may flourish.

That was an articulate response to the question, "What do you need to start a business? There are just three requirements for success: expert knowledge of one's product, familiarity with one's target market, and an unquenchable thirst for achievement.

Companies are using technology as a rung on the ladder to global communication. When seen through the lens of modern technology, the globe does indeed seem much smaller than it is. Thanks to developments in communication technology, businesses may now interact with their

consumers and clients through online forums, blogs, and instant messaging. The company's social media presence is growing, which bodes well for its public profile and, by extension, its ability to win new business.

It is the central hub where companies of all stripes may get together to take on the competition. As a result, connecting with people all around the world is simple. One may argue that technological advancements have made this feasible. As global connection improves, it will become easier to communicate with people everywhere. Entrepreneurial technical competence comprises the ability to interpret complicated technical principles into language that a wider audience may understand. Customers, investors, and other stakeholders must be properly communicated the environmental advantages and value propositions of entrepreneurs' products or services. This communication skill is essential for raising awareness, generating demand, and developing a strong brand image for green entrepreneurship efforts.

A virtual global environment, accessible by conference call or video chat, has been made possible by technological progress and the emergence of new forms of technology, such as those found on the internet. To save time, we plan our journeys in such a way that we may avoid unnecessary stops. Smooth operations and straightforward commercial dealings are bridging that technology is constructing.

"The key to success is taking the first step. Start by dividing large, daunting jobs into smaller, more doable ones, and then tackle the first one. A 24-hour, seven-day-a-week office is now possible because of technological advancements that provide workers with the flexibility to do their jobs from anywhere in the world. In most cases, this method may save money by reducing the need for costly and space-consuming offices. Thus, with all these options and the ease of access to technology, even a regular human being may launch a business.

Successful enterprises such as Tesla and Patagonia demonstrate the value of entrepreneurial technical competence in green entrepreneurship. Tesla, driven by entrepreneur Elon Musk, disrupted the automobile sector by using technological prowess in the creation of electric vehicles and renewable energy solutions. Patagonia, a firm that makes outdoor clothes and gear, uses sustainable materials and production processes in its goods. The founders' and teams' entrepreneurial technical competence has been critical in driving their success and environmental effect.

2.5.1. Technology's Influence

Generic technologies determine the capacity to forecast the company's future growth. Therefore, technology aids large corporations in consolidating and analyzing factors like national economic circumstances and the corporation's financial standing. Consumers are drawn to emerging technologies, which in turn affects the industry's outlook and competitive landscape in the long run.

Using thorough market research allows the entrepreneur to make more informed choices under pressure. As a result, many business owners first recognize market trends and then release services connected to those trends.

This shrewd method reduces the possibility of their businesses failing. This is due to the advancements in communication technologies that have led to the accumulation of vast stockpiles of data that may be mined for insights.

With the use of modern tools, businesses may take advantage of new strategies, such as two-way communication. To better understand their clientele, businesses may now solicit

comments on their services and goods from their clientele. Therefore, technological tactics have made customization simple, making it possible to thrive in any industry.

2.5.2. The Impact of Technology

2.5.2.1. Consumers and business

In today's fast-paced corporate world, it is evident that staff members must regularly communicate with customers. Thus, technology is the only factor influencing a company's capability to communicate successfully with its clientele. Customers may have their queries answered even while the business is closed. Fast shipping alternatives, for instance, are now available to companies all around the world because of the widespread availability of high-speed Internet access. Customers may choose from a variety of technological channels to engage with a company. Customers get the advantages of enhanced communication, which in turn boosts the company's reputation, thanks to the two elements' interdependence.

2.5.2.2. Concentration on operations

A company's cash flow demands may be better understood with the use of technology, which offers a host of new opportunities. Technology provides a purpose by protecting limited resources like time and room. Technologies help company owners learn how to handle warehouse stock while discussing inventory management properly. The appropriate use of technology enables the estimation of product costs. Meetings may be held at any time and from any location, saving both travel time and business expenses, all thanks to the Internet.

2.5.2.3. Protection ability

Most companies in the current day worry about security breaches and other forms of potential harm. Thus, the introduction of technology safeguards sensitive financial data, executive decisions, and other intellectual property. It safeguards the organization's most prized credential—

one that can be leveraged into a market advantage. To this end, companies may benefit from inserting technology into the middle of the process that helps them steal customers' ideas.

2.5.2.4. Ability to Create New Technologies (TIC)

Any company that wants to last in the long run needs to be able to adopt and use cutting-edge technologies well. In the same way, it means that the real company values and supports technological development. But researchers found either no link between R&D spending and financial returns or a negative relation. Analysis of the framework of the technological innovation system and the entrepreneur's view of innovation gave useful information about the steps that need to be taken to help create and use new technologies for sustainability. Studies show that being able to come up with new ideas helps production.

2.5.2.5. Ability to Market Technologies (TMC)

Comparing the success or failure of technological advancement with marketing's relevance reveals that marketing's significance is diminished. Put another way, and faulty technology accounts for 20–40% of all technological failures. Lack of marketing expertise accounts for the remainder, notably concerning high-tech items, where the percentage has been demonstrated to approach 75%. There are two ways the idea of technology marketing may be articulated, each open to varied interpretations depending on the researcher. The marketing of high-tech goods is an emerging field of study because of the special nature of the things they offer and buy.

2.6. Market Opportunity

The term "MO" refers to a growing pattern of demand that a company has noticed from its customers. Green businesses are a new company that has emerged in response to environmental concerns, unmet social needs, and the global economic crisis. They are also known as green economies, green markets, and green entrepreneurship. Since green entrepreneurship was

recognized as a crucial method to create new employment and boost economic development, Western governments have prioritized it on their monetary policy agenda. As (Gibbs, 2016) noted, there has been a shift in policymakers' emphasis on facilitating and developing.

"Green" economic innovations are the next wave. As a result, there has been an international drive for "green entrepreneurship," an approach that integrates financial and ecological benefits. Public acceptance is often a deciding factor in whether technological advances are ultimately successful. For some years now, the general population has widely supported eco-friendly consumption. As more people have become familiar with the concept of sustainability, there has been a remarkable growth in the demand for eco-friendly products and services in recent years. (Cai, 2017). investigated the idea that "green" branding may stimulate mergers and acquisitions for manufacturers of environmentally friendly furniture. Regarding green business, ecology, society, and the economy all converge.

The capacity to recognize and capitalize on market possibilities is key to the entrepreneurial process. Successful business owners have an intuitive grasp of their customer's desires and needs and the ability to anticipate and anticipate their customers' wants and requirements. This implies that business owners must always look for ways to increase their bottom line regardless of how apparent the chances may seem.

Entrepreneurship and a focus on the market go hand in hand since both emphasize capitalizing on revenue growth via seizing unanticipated sales possibilities.

Entrepreneurship demands more work than following in an established company's footsteps by selling the same goods or services in new areas.

Market-oriented firms stick to what has worked in the past, which may require more significant capital investment or expansion efforts over time. However, they already have established relationships with customers familiar with what they offer now rather than having been introduced through marketing campaigns designed specifically for this purpose. This is the key difference between entrepreneurship and market orientation.

Successful businesses focus on satisfying the wants and demands of their clientele. This entails market research to determine consumer preferences to tailor your offerings to them. To be "market-oriented" is to focus on and build a plan to satisfy your target audience's wants and requirements.

Entrepreneurship is a crucial part of a market-oriented mindset in identifying and developing new business prospects into successful enterprises. When an entrepreneur sees a need in the market that an existing firm has not filled, they create a business model to fill that gap. Then they advertise and sell their product or service so that consumers would choose to buy from them rather than the competition.

Having a firm grasp of the market is crucial to successful entrepreneurship. Companies and consumers need to understand the market and how their product fits within it. Startup founders are crucial because they may move an organization forward quickly by taking calculated risks without waiting for approval from the company's higher management.

A keen eye on the market is essential in the ever-changing and intricate world of entrepreneurship. The interaction between entrepreneurship and market orientation affects both the actions of entrepreneurs and the growth of markets.

The concept of green marketing not only meets consumer needs, but also contributes to long-term sustainable development. With the growth and development of green markets, there are also many opportunities for entrepreneurs around the world. Innovation and new product development are one of the important components of entrepreneurship and can be seen in the concept of green marketing (Keskin D, 2013). Entrepreneurs always focus on innovative ideas and bring change to society and markets through enterprises (Menon A, 1997).

Green entrepreneurship is gaining ground as customer purchasing habits change in response to eco-friendly or green products. Green entrepreneurship innovates, transforms conventional or traditional goods into green goods, and captures the green market. Since the green market is still in its infancy and hasn't been sufficiently penetrated, it offers some green entrepreneurs some opportunity. Due to the fact that they create businesses that are beneficial to both society and the environment, these green entrepreneurs are also known as enviropreneurs. The idea of green entrepreneurs encourages individuals to learn about the need of a greener environment in addition to assisting consumers in obtaining their desired green goods and services (Sharma NK, 2015).

Currently, various developed and developing countries are starting to implement environmentally friendly practices such as green marketing, green supply chains and waste management (Singh PB, 2012), creating a favorable climate for these green entrepreneurs. Fostering green entrepreneurs also encourages young graduates to come and be part of this new opportunity. Green entrepreneurs can not only benefit from the market, but also gain social recognition in society (Sharma NK, 2015).

While expectations of green products are often undermined by the perception that these products are of low value and do not meet environmental claims, perceived green positively

influences trust in green products and intention to purchase green products, and perceived green products Environmental hazards negatively affect both. their (ChenYS, 2012). Consumer distrust is the issue, and it needs to be addressed properly if it is to be solved (Polonsky MJ, 2001). There is a need for more reputable, promising businesses who can keep their word when it comes to green products. Many managers are looking for knowledge on responsible purchasing practices as a result of the rising demand for environmentally friendly products and the desire to remain competitive (Follows SB, 2000).

2.7. Green Entrepreneurship

Fan et al. argued that the environmental protection sector, which is key to the so-called "green economy," has the potential to significantly improve the state of the nation's economy and boost job prospects. Most nations have attempted to improve their economies while still safeguarding their natural environments. Businesses, sectors, and governments have adopted it. Green economic interests promote and create innovative, long-term, sustainable, "green" economic structures.

The public's growing awareness of sustainability has increased the demand for environmentally friendly products and services, demonstrating the widespread environmental concern felt by the general. Green entrepreneurship has both financial and ecological advantages and has been actively supported. Establishing a sustainable society via green entrepreneurship, which integrates environmental, social, and economic goals, is widely seen as a viable option.

Various phrases, such as eco entrepreneurship, environmental entrepreneurship, sustainable entrepreneurship, ecological entrepreneurship, enviro-preneurship, and sustain solopreneurship, may be used to describe the same idea, which has been the subject of heated debate since the 1990s. Vans and Arun claimed subtle distinctions between the categories

mentioned above. They all seem to revolve around improving the ecological and social-environmental conditions. Use of green business practices

The present research is an all-encompassing term that merges ecological entrepreneurship and sustainable development and is consistent with the "triple bottom line" of environmental, social, and economic well-being. There are three ways in which eco-friendly business models differ from their more conventional counterparts.

Green entrepreneurship is the process that finds, analyzes, and possesses business prospects founded on sustainable, ecologically friendly, and green principles. Entrepreneurs in the green economy are committed to replacing conventional goods and services with innovations in environmentally friendly options. According to Wang and Li, environmentally conscious businesses need to solve age-old economic issues while showing they care about the community.

The French word for "entrepreneur" means "to take the initiative to bridge," and this use of the word persists today. Entrepreneurship entails the steps businesspeople take to discover and capitalize on possibilities presented by introducing new goods, procedures, or markets. More importantly, entrepreneurs may boost economic development and employment and solve environmental problems in various ways.

Among the many approaches, "green" entrepreneurship—which aims to improve the environment, society, and the economy—is often regarded as the most effective means of meeting this requirement. Since the 1990s, there has been a clear increase in scholarly and popular interest in green entrepreneurship, which has helped to broaden the field. As a subset of entrepreneurship, green business Equivalent to environmental entrepreneurship, sustainable entrepreneurship, ecological entrepreneurship, and ecopreneurship.

The term "green entrepreneurship," as defined by Lober, Alternatively, organizations address environmental market possibilities," which suggests that firms improve their competitive edge by proactive environmental postures. According to Gast et al., "green entrepreneurship" is "the process through which sustainable, environmentally friendly, and green business prospects are identified, evaluated, and owned."

Furthermore, as entrepreneurs turn ideas into tangible goods, technology, and services, they should do so while keeping environmental preservation and societal well-being in mind. This business and sustainable development approach considers the "triple bottom line" of environmental impact, social good, and economic viability. According to Lotfifi et al., "green entrepreneurship" is "any kind of social action to protect the environment."

Additionally, there is a growing public acceptance of eco-friendly consumption, providing an expanding pool of prospects for eco-friendly business owners. However, green entrepreneurship is defined by its willingness to tackle conventional economic difficulties while prioritizing social responsibility and environmental sustainability.

Researchers in various sectors have examined people's eco-friendly habits using TPB, as detailed in the literature mentioned earlier. In order to learn more about students' entrepreneurial motivations in Poland, Wach and Wojciechowski used TPB. Green entrepreneurs must consider social responsibility and environmental concerns when creating new goods, technology, and services from the ground up.

As Lotfi et al. pointed out, eco-friendly business owners are committed to bringing cutting-edge green goods and services to consumers. The notion of green entrepreneurship may be expanded as a form of social engagement to conserve the natural environment. As a result, we can

say that green entrepreneurship is both a sort of green behaviour and a type of switching behaviour in which business owners transfer their attention from making a profit to caring about social responsibility and the environment.

The public's attitude toward eco-friendly purchasing patterns has shifted positively. For this reason, many Western governments have put "green entrepreneurship" at the top of their economic policy agenda. More and more business owners are being pushed to pursue "green" ventures that balance ecological, societal, and financial concerns. In addition, the term "green entrepreneur" encompasses a broader set of values than the more common "conventional entrepreneur", along with eco-friendly abilities. Financing institutions are less likely to invest in a green business due to its poor scalability and lengthy return on investment periods. It has been argued that the additional expenses associated with the green business are a competitive disadvantage. Limitations to green business ventures are widespread due to a dearth of experts specializing in environmental sustainability. Although green entrepreneurs face more challenges, the number of green companies has expanded steadily throughout the globe.

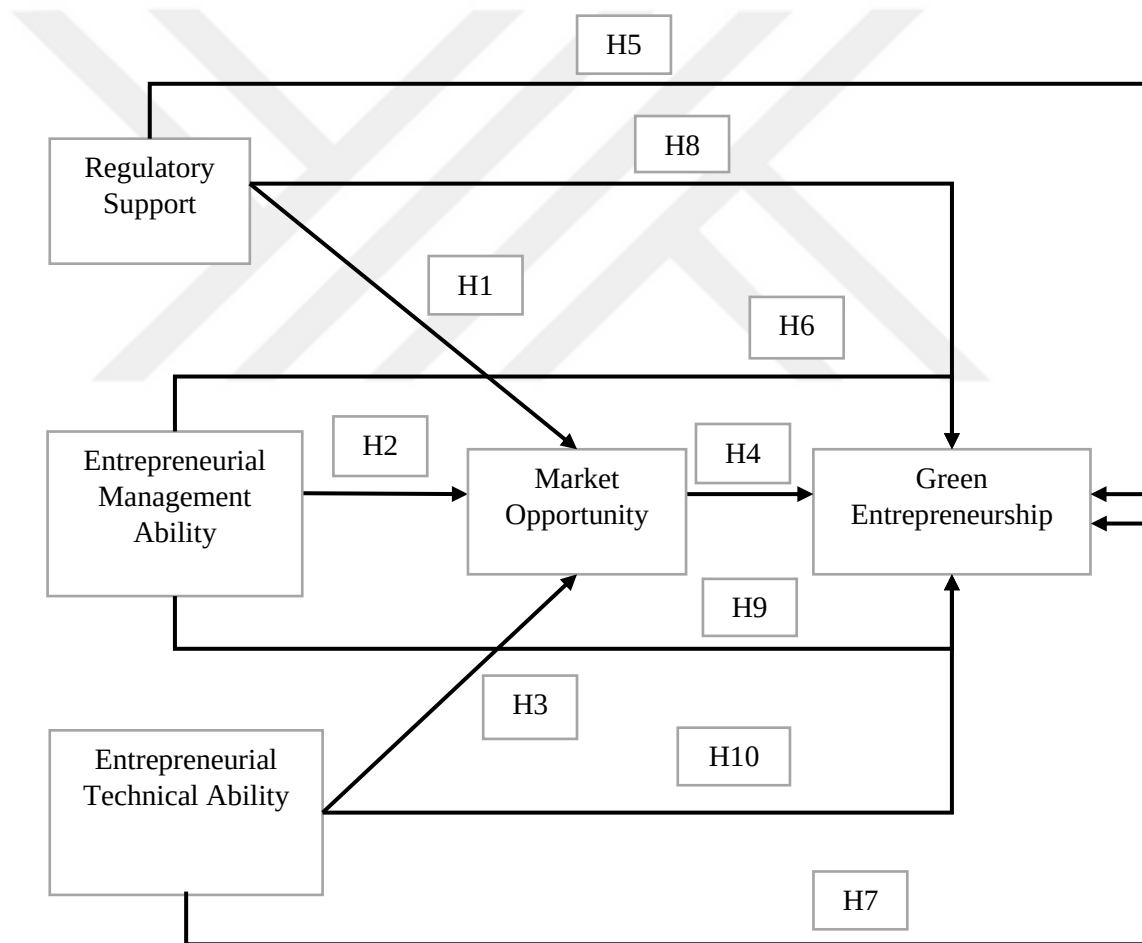
It must strike a balance between markets, communities, and environmental ideals. The motivations of business owners to transition to eco-friendly practices should be studied. Escolar-Llamazares et al. described entrepreneurship as a sophisticated human talent due to several interrelated causes. The concept of "green entrepreneurship" is a huge, multi-faceted one.

That depends on considerations such as economic, social, and ecological goals. Accordingly, the present research highlights the push, pull, and anchoring elements influencing entrepreneurs' switching behavior toward green entrepreneurship.

2.8. Research Model

The focus of this research is to explore the mediator role of market opportunity on the effect of regulatory support, entrepreneurial management, and technical ability on green entrepreneurship. This has been described using the research model below:

Figure 4 Research Model



2.9. Proposed Hypothesis

Any kind of regulatory environment serves as the regulatory support and a prime principle in the social interactions. These are referred to as formal and informal regulations that regularize the behavior of an individual. (Seelos, et al., 2011) The regulatory environment or support emphasize on the establishment of rules and association of rewards and punishments and hence is a significant factor in the monitoring and regulating the individual behaviors. (Liliana Doganova, 2009) It is confirmed through research that regulatory support to any business or enterprise results in the successful construction of a business and eventually leading towards achievement of success. (Gerard George, 2020) These observations are collected from the cited articles which helps us in the generation of another hypothesis for the purpose of research.

Hypothesis 1: Regulatory support significantly affect market opportunity.

The managerial abilities of an entrepreneur, such as cultivation and build-up of a team and organizational structure as well as an enterprise system. Subsequently it will impact the cost control, advantage on quality and technological innovation, eventually enhancing the organizational efficiency (Hao Jiao, 2016). Creative innovation facilitates the creation of new goods, technologies, and methods through research and development and innovation, according to a study of a manager's psychological qualities (Burgelman & Sayles, 2004). Management ability research is important because it helps explain the link between a manager's attributes and management success in a systematic and realistic way. The effectiveness of the managerial abilities and the efficiency of the organizational structure fosters the growth due to the availability of soundness and stability of an enterprise. As a result, market opportunities are generated, hence the relevant hypothesis in this context would be:

Hypothesis 2: Entrepreneurial Management Ability significantly effect on market opportunity.

Entrepreneurial technical ability development and gain of external knowledge is an important intelligence source within an organization or an enterprise, which portrays the recognition of an entrepreneurial ability. (Mike Wright, 2020) If the organization gains more external knowledge in the phases and contexts of technological innovation and advancements in a specified time frame will return in the provision of extensive market opportunities. (Ferran Giones, 2019) This also promotes the innovation of enterprise as well as of individual behavior. Such opportunities create demand and supply for further innovative and technological products and services, as a result creating market opportunities. Technical aptitude is critical for promoting and supporting a company's innovation strategy, as well as the long-term success that innovation activities provide (De Franco, 2017). This enables us with the design of further hypotheses as follows:

Hypothesis 3: Entrepreneurial Technical Ability significantly effect on market opportunity.

Market opportunity is the emerging concept that is to suffice the wants, needs and demand trends of the customers in the digital era. (Pablo MUÑOZ, 2018) For taking the environmental sustainability and the economic development side by side, it is essential to identify the market opportunity as the consumer in the market determines the scope. For green entrepreneurship or development of technology with taking the environmental factors in supervision. Green entrepreneurship, which joins both the economic and environmental benefits, has been encouraged worldwide as it not only fosters the growth of economic development but also sustains the environment. (Filatova, 2020) The market opportunities if created in green entrepreneurship while sustaining the environment and not compromising on the environment intersects with the factors of environment, social, and economic goals are to be considered the key driving force of

sustainable economic development. This eventually leads towards the generation of opportunities in the market. On this basis the following hypothesis is derived:

Hypothesis 4: Market opportunity significantly affect green entrepreneurship.

Hypothesis 5: Regulatory Support significantly affect green entrepreneurship.

Hypothesis 6: Entrepreneurial Management Ability significantly affect green entrepreneurship.

Hypothesis 7: Entrepreneurial Technical Ability significantly affect green entrepreneurship.

Hypothesis 8: Market opportunity has a mediator role on the effect of regulatory support on green entrepreneurship.

Hypothesis 9: Market opportunity has a mediator role on the effect of entrepreneurial management ability on green entrepreneurship.

Hypothesis 10: Market opportunity has a mediator role on the effect of entrepreneurial technical ability on green entrepreneurship.

3. METHODOLOGY

This chapter describes the tools and instruments which are used in this study to analyze the variables related to our field of interest. The objective of methodology is to empirically find the does brand innovativeness have impact on customer satisfaction level in mobile phone industry. The study starts with a research design in which population of study, sample size, tools for data collection will be analyzed. Moreover, the data will be analyzed after collection of data and conclusions will be drawn from hypothesis.

3.1. Data Collection

Quantitative research will be used to test our suggested research paradigm. Surveyey.com will be used to spread survey questions, which are the most common means of obtaining data among the target audience. The goal of our research is to look at several aspects of green entrepreneurship, such as regulatory support, managerial ability, and technical skill, as well as market opportunity, and green entrepreneurship.

3.2. Participants

Self-employed persons / entrepreneurs make up the study's population. Furthermore, they were questioned about their views on environmental sustainability to add precision to the research sample. The study focuses on the entrepreneur who wants to employ technical improvements in their firm to focus on environmental sustainability. A mix of males and females, with a flexible age span, were questioned to collect responses to give variety and impartiality to the study, Appendix show the demographic questions.

3.3. Sample Size

The formula below can be used to calculate sample size for an unknown population size:

$$n = (z)^2 p (1 - p) / d^2$$

P is the estimated proportion of the research variable or construct based on prior studies or pilot studies (70 percent), $q = 1 - P$ (30 percent), and d is the margin of error in this calculation (5 %). The Z-score or standard normal deviation corresponding to (100 %, /2 %), where the significance level or likelihood of making a type I mistake is denoted by z . The z score for varying degrees of significance is 1.96 for 5% at a 95% confidence level.

384 participants were chosen from several business incubators, including Tekno Park Istanbul, for this purpose.

3.4. Measure and scales

This study utilized deep rooted and profoundly dependable scales to gauge the review factors. The variables of the research were inclusive of the Market Opportunity, Regulatory support, and entrepreneurial management ability and entrepreneurial technical ability. A Likert scale with a minimum of 1 and a maximum of 5 is used in the survey instrument.

For the evaluation of the market opportunity, the three-item scale was used which indicated reliability with the $\alpha=0.87$ for 'Market opportunities in green entrepreneurship in field of deep technology, would ensure environmental sustainability' hence ensuring a reliable level of significance. (Filimonau, et al., 2016) with the parameter, 'Green entrepreneurial initiatives will lead to blue ocean strategy to live in the market'. In recent times the scale was used by (Qing Ye, 2020).

Table 1 Market Opportunities Scale

Construct	Code	Items Description	Reliability	Source
Market Opportunity (MO)	MO 1	Green entrepreneurial initiatives led to blue ocean strategy to live in the market	$\alpha=0.87$	(Qing Ye, 2020) & (Filimonau, et al., 2016)
	MO 2	The advantages of green entrepreneurial initiatives outweigh its disadvantages.		
	MO 3	Eco-friendly entrepreneurial initiatives are a good way to establish new business venture/initiative.		

The measurement of the regulatory support was measured using the five-item scale of (Urban & Kujinga, 2017) which provided the level of significance of the research as, $\alpha= 0.95$ providing with adequate reliability.

Table 2 Regulatory Support Scale

Construct	Code	Items Description	Reliability	Source
Regulatory Support (RS)	RS 1	Government organizations assist individuals for starting their ventures or initiative.	$\alpha= 0.95$	(Urban & Kujinga, 2017)
	RS 2	Local and national governments support individuals who are starting an environmentally friendly venture.		
	RS 3	Government sets aside government contracts for new and small ventures or initiative.		

	RS 4	Government sponsors organizations that help new ventures or initiative.		
	RS 5	Even after failing, government assists entrepreneurs starting again		

To measure entrepreneurial management ability a five-item scale has been used of (Nandumuri, 2015) the scale was adopted from the original scale of (Peter B. Robinson, 1991). The scale provides the level of significance of the research as, $\alpha = 0.867$. A questionnaire schedule with five statements was given to the responders covering the areas autonomy, risk taking, proactiveness, drive and energy and self-confidence.

Table 3 Entrepreneurial Management Ability Scale

Construct	Code	Items Description	Reliability	Source
Entrepreneurial Management Ability (EMA)	EMA 1	I prefer to make my own decisions.	$\alpha = 0.867$	(Nandumuri, 2015) & (Peter B. Robinson, 1991)
	EMA 2	I prefer to take risk in future life.		
	EMA 3	I can calculate the future needs of my business.		
	EMA 4	I depend on my instinct & intuition while making decisions.		
	EMA 5	I have confidence in my own skills and capabilities.		

The measurement of entrepreneurial technical ability a four-item scale which were derived from (Gaylen N.Chandler, 1992) the scale showed the level of significance as $\alpha = 0.72$ which exceeds the 0.70 mark suggested by (Nunnally, 1978).

Table 4 Entrepreneurial Technical Ability Scale

Construct	Code	Items Description	Reliability	Source
Entrepreneurial Technical Ability (ETA)	ETA 1	Expertise in a technical or functional area help in the creation of opportunities in the market	$\alpha = 0.72$	(Gaylen N.Chandler, 1992)
	ETA 2	Expert at the technical part of my work leads adaptation to changing world dynamics		
	ETA 3	Prefer to stay in my area of technical expertise		
	ETA 4	Technical abilities are the basis entrepreneurship and innovation		

The green entrepreneurship is measured using the scale from (Sharma NK, 2015), (Nikolaoua, et al., 2011) and (Emami, 2014) this provided the level of significance of the research as $\alpha = 0.82$, which is adequate. Below Table completely lists the items and scale sources.

Table 5 Green Entrepreneurship Scale

Construct	Code	Items Description	Reliability	Source
Green entrepreneurship (GE)	GE 1	Green entrepreneurship eliminates environmental degradation.	$\alpha = 0.82$	(Sharma NK, 2015), (Nikolaoua, et al., 2011) and (Emami, 2014) and
	GE 2	The company should establish a balance between raising profit, considering the environment, and taking into account innovation and modern methods for green business.		

	GE 3	Producing products and services for profitability and green commerce is a priority.		(Maryam Lotfi, 2018)
	GE 4	Green businesses present opportunities for making profit from ecological scopes.		
	GE 5	Green entrepreneurship serves as a driving force for triggering new economic growth in modern economies.		

3.5. Planned Analysis

To begin, the data were examined for normality and missing values, as is common in statistical procedures. The statistical approach and procedure of the research began with analyzing the collected data in SPSS and was analyzed for kurtosis and skewness. Chi-square test was incorporated for the examination of potential nonresponse bias for all variables by the comparison of the initial and final 25% of the total participants of the research.

Conformity Factor Analysis is used for the measurement of the discriminant values of the construct sample. Conformity Factor Analysis or CFA is a technique equip the researchers with the tools for the measurement of the significance of the construct. The conformity factor analysis helps in finding the fit between the theory-based models with the available data (Gaughran, 2007). The mean or average variance extracted (AVE) values from the constructs were higher than the recommended levels of significance which is 0.5. If the Cronbach coefficient is greater than 0.7 and the composite reliability is greater than this value, all the constructions are regarded as reliable.

This construct had AVE values more than 0.5, which is a sufficient level for statistical significance. Convergent validity was evident in the study's scales, which had reflective item loadings of more than 0.7 for each construct. Each construct's AVE values and correlation coefficients with other constructs were utilized to investigate the discriminant validity of the study (Bas, 2016).

3.6. Limitations

The measuring scales utilized in this investigation have a significant restriction. All measures were adapted straight from existing literature, with no new scales generated expressly for this study. This method was chosen to take advantage of the previously demonstrated reliability and validity of these measures. While this assures consistency and comparability with previous research, it also introduces limitations. These measures were created and validated under specific situations and contexts that may differ considerably from those used in the current investigation. As a result, they may fail to reflect the distinctive subtleties or new trends that are now relevant to green entrepreneurship. For example, legislative and commercial contexts change swiftly, and scales developed some years ago may no longer accurately reflect current situations or the unique features of the countries under investigation.

Furthermore, employing known scales restricts the capacity to accurately adjust the measuring tools to the conceptual framework of this study. Custom-designed scales might have been created to more effectively quantify the unique interplay of regulatory assistance, entrepreneurial management, technical aptitude, and market potential in the context of green entrepreneurship. However, the substantial time and resources necessary to create, test, and verify new scales were outside the scope of this research. As a result, this study is based on the assumption that the original constructs and their operationalizations are directly applicable to the current

context, which may not always be true, potentially leading to measurement inaccuracies or an incomplete representation of the phenomenon under investigation.

In addition to the limits of measuring scales, the research population has major constraints. The data for this study were obtained broadly across several industries rather than specifically for one. While this generic method provides a broad perspective, it may not completely reflect the unique qualities and obstacles that green entrepreneurs confront in various areas. Different industries have distinct regulatory regimes, market prospects, and technological needs that can greatly impact the dynamics of green entrepreneurship. For example, the renewable energy sector has distinct commercial prospects and regulatory obstacles than the organic food business. The findings may neglect crucial sector-specific characteristics since they do not focus on individual sectors.

Furthermore, the sample's geographical concentration and demographic variety may restrict the generalizability of the results. If the study primarily sampled green entrepreneurs from certain geographies or demographic groupings, the findings may not be relevant generally. Regional disparities in legislative backing and market possibilities, as well as variable levels of access to technical resources, can lead to divergent entrepreneurial experiences and outcomes. Future study should strive for a more varied and representative sample, including various areas, sectors, and demographic groupings, to improve the findings' external validity and application.

Furthermore, the sample's demographic diversity, which includes criteria like age, gender, education level, and past entrepreneurial experience, was not completely controlled. These demographic characteristics can have a substantial impact on perceived and real market prospects, as well as the efficacy of regulatory and technical assistance. Without a wide and representative sample, the study may fail to capture the complete picture of green entrepreneurship.

The cross-sectional nature of the data gathering reduces the capacity to draw causal conclusions. Longitudinal research is required to better understand how changes in legislative backing, entrepreneurial management, technical aptitude, and market possibilities over time affect green entrepreneurship. This would yield more robust insights into the dynamics and causal linkages between these variables.



4. DATA ANALYSIS AND RESULTS

Our analyses were carried out using the SPSS 21.0 and AMOS 21.0 programs, with a 95% confidence level. Initially, the descriptive statics of survey attendances and frequency distribution statistics of variables were discovered based on the responses and answers. Skewness and kurtosis data were tested for normalcy to ensure that the distribution was within acceptable limits. This study use multivariate analysis to investigate factor analysis and variable influences. Exploratory Factor Analysis is used to control factors by reducing and summarizing data for each measurement scale. The KMO and Bartlett tests were used to determine whether the scale was adequate for factor analysis. Then, Confirmatory Factor Analysis (CFA) was performed, fit indices were employed to assess the model's adequacy, and Cronbach's alpha coefficients were regulated to ensure the scales' reliability. The Pearson correlation test was used to examine the relationships between the variables, and the correlation coefficient power levels were established. The findings from research meant to test hypotheses about how the influence of the independent variable on the dependent variable is transferred with a third variable were then evaluated using mediator variable analysis, which is a statistical approach used to assess the findings acquired from studies aimed to test hypotheses about how the effect of the independent variable on the dependent variable is transferred with a third variable. Statistical assessments were conducted within a 95%-99% confidence interval, and statistical significance levels of $p0.05$ and $p0.01$ were determined.

4.1. Descriptive Statistics

Demographic characteristics of research participants summarized is shown in Table 4.1.

Table 6 Demographic Characteristics Of Research Participants

Variables		Frequency	Percent	Cumulative Percent
Marital Status	Single	218	54.5	54.5
	Married	177	44.3	98.8
	Others	5	1.3	100.0
	Total	400	100.0	100.0
Gender	Male	250	62.5	62.5
	Female	150	37.5	100.0
	Total	400	100.0	100.0
Age	18-24 Years	106	26.5	1.3
	25-34 Years	213	53.3	3.5
	35-44 Years	68	17.0	6.0
	45-54 Years	10	2.5	19.3
	65 and Above	3	.8	53.8
	Total	400	100.0	100.0
Level of Education	Illiterate	5	1.3	1.3
	Literate	9	2.3	2.3
	Secondary School	10	2.5	2.5
	High School	53	13.3	13.3
	Bachelors	138	34.5	34.5
	Masters	185	46.3	46.3
	Total	400	100.0	100.0
Tenure	Less than 1 Year	114	28.5	28.5
	1-5 Years	167	41.8	70.3
	6-10 Years	86	21.5	91.8
	11-15 Years	8	2.0	93.8
	More Than 15 Years	25	6.3	100.0
	Total	400	100.0	
Working Hours	4-6 Hours	86	21.5	21.5
	6-8 Hours	133	33.3	54.8
	8-10 Hours	150	37.5	92.3

	10 or more hours	31	7.8	100.0
	Total	400	100.0	100.0
Workforce	Under 10	179	44.8	44.8
	10-25 Employees	91	22.8	67.5
	26-50 Employees	40	10.0	77.5
	51-100 Employees	20	5.0	82.5
	More than 100	70	17.5	100.0
	Total	400	100.0	100.0
Earnings	Less than 10.000 TL	26	6.5	6.5
	10.001-15.000 TL	65	16.3	22.8
	15.001 - 20.000 TL	147	36.8	59.5
	20.001 - 25.000 TL	104	26.0	85.5
	More than 25.000 TL	58	14.5	100.0
	Total	400	100.0	

Table 6 offers a detailed description of the sample population's demographics and other pertinent data, which included 400 respondents. The bulk of respondents (54.5%) are single, followed by married people (44.3%), with just a minor number falling into the "Others" group (1.3%). There are more male respondents (62.5%) than female replies (37.5%). The majority of responders (53.3%) are between the ages of 25 and 34, followed by 18 to 24 (26.5%) and 35 to 44 (17.0%). There are fewer responders in the elder age groups. The bulk of respondents have a Master's degree (46.3%) or a Bachelor's degree (34.5%), with a lesser number having finished high school (13.3%) or possessing other educational degrees. Overall, the table provides useful information on the respondents' demographic makeup and attributes, which may be used to assist future research and decision-making.

The poll is largely applied to self-employed people / entrepreneurs collecting data from TechnoPark Istanbul, and using Linkdin to spread the survey, with 80% of respondents from online retailers, 60% from banking and finance, and 60% from information technology. Figure 5 & 6 below shows.

Figure 5 Nature of Business of Respondents

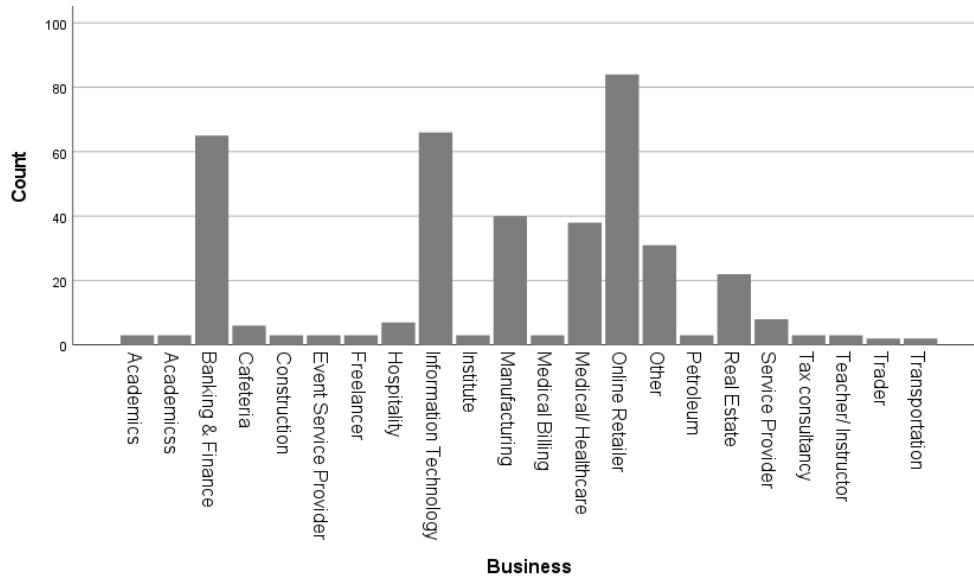
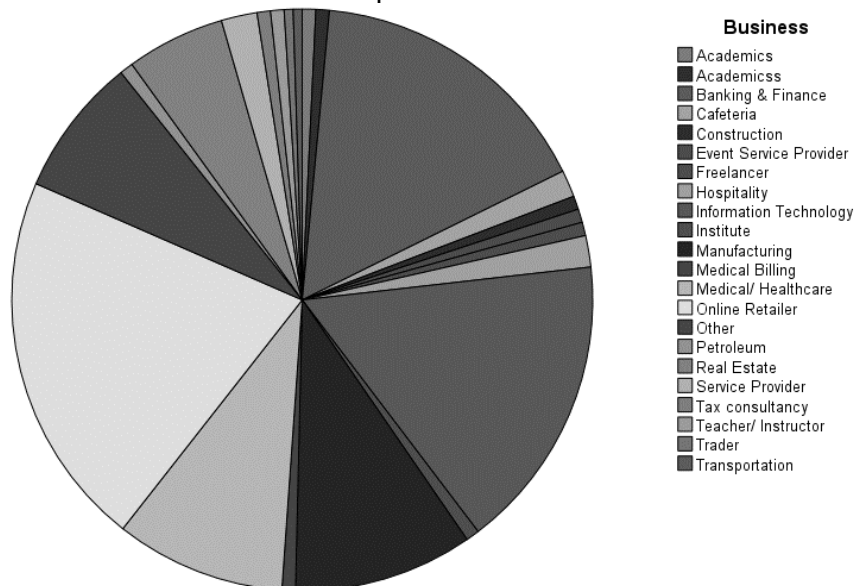


Figure 6 Nature of Business of Respondents



Source: Created by Author

Table 7 Statistics Of Perspectives on environmental sustainability

Sustainability Measure	Yes	277	69.3	69.3
	No	123	30.8	100
	Total	400	100.0	

Table 7 provides statistics on the participants' perspectives on environmental sustainability to help refine the study sample.

4.2. Goodness of Measuring Scales

The assessment of an instrument designed to measure a variable relies on both its validity and reliability. Reliability refers to the consistency of the scale, while validity pertains to the accuracy of the concept being measured using any scale (Blumberg, 2014) & (Sekaran, 2016). Validity indicates the extent to which an instrument accurately measures the intended concept. To assess the reliability of the instrument, Cronbach's Alpha values are calculated, while exploratory (EFA) and confirmatory factor analysis (CFA) are performed to validate the measuring scale. Cronbach Alpha is used to estimate the internal consistency reliability of measurement scale (Bernstein, 1989). The ranges of 0.70 to 0.99 are acceptable (Fisher Jr, 2007). A greater Cronbach's Alpha value signifies a more reliable measurement scale. However, there is no universally defined minimally satisfactory reliability value; the acceptability of a reliability value depends on the specific application in question.

Table 8 Reliabilities of all scale

Variable	No of Items	Cronbach Alpha in Current Study
Regulatory Support (RS)	05	0.897
Entrepreneurial Management Ability (EMA)	05	0.915
Entrepreneurial Technical Ability (ETA)	04	0.850
Market Opportunity (MO)	03	0.912
Green entrepreneurship (GE)	05	0.899

Table 8 shows the findings of the reliability analysis performed on numerous major variables in the current study, as well as the number of items in each variable and their respective Cronbach's alpha coefficients.

4.3. Exploratory Factor Analysis & KMO – Barlett Tests

According to (Watkins, 2018), Exploratory factor analysis is employed to uncover common factors that elucidate the patterns and structure among the measured variables. This method proves to be a potent tool for validating the measurement scale in psychological research. This study undertakes the questionnaire with have hypothesized model on existing scale.

Factor analysis is performed by using maximum likelihood with promax rotation, the communalities are examined and established to be above 0.3. Kaiser-Meyer-Olkin measure of sampling adequacy is 0.889, above the suggested value of 0.6 (Kaiser, 1974), and Bartlett test of Sphericity (Bartlett, 1950) is significant (χ^2 (231) =6629.085, $p < .01$). An assessment is made based on the scree plot, eigenvalues, and the total variance explained, leading to the decision to

retain 4 factors for subsequent analysis (eigenvalues >1, total cumulative variance explained = 69%, and on scree plot, the point of inflexion is on 3, and 5).

Table 9 Factor Loadings

	Component				
	1	2	3	4	5
RS1	.860				
RS2	.739				
RS3	.951				
RS4	.810				
RS5	.834				
EMA1			.967		
EMA2			.945		
EMA3			.715		
EMA4			.779		
EMA5			.801		
ETA1				.843	
ETA2				.937	
ETA3				.948	
ETA4				.813	
MO1					.897
MO2					.817
MO3					.921
GE1		.882			
GE2		.803			
GE3		.790			
GE4		.962			
GE5		.889			
Extraction Method: Principal Component Analysis. Rotation Method: Promax with Kaiser Normalization.					

The table 9 displays the findings of an exploratory factor analysis (EFA) on the components of many variables, including regulatory support (RS), entrepreneurial management ability (EMA),

entrepreneurial technical ability (ETA), market opportunity (MO), and green entrepreneurship (GE).

- Regulatory Support: Five components (RS 1–RS 5) were isolated. The component loadings vary from 0.739 to 0.951, demonstrating a substantial relationship between the items and their respective components, implying a consistent underlying structure within the RS variable.
- Entrepreneurial Management Ability (EMA): Five components (EMA1–EMA5) were found. Component loadings vary from 0.715 to 0.967, demonstrating a strong relationship between the items and their respective components, implying a clear and well-defined structure within the EMA variable.
- Entrepreneurial Technical Ability (ETA): Four components (ETA 1–ETA 4) were extracted. Component loadings vary from 0.813 to 0.948, demonstrating a strong relationship between the items and their respective components, implying a clear and understandable structure inside the ETA variable.
- Market Opportunity (MO): Three components (MO1-MO3) were found. Component loadings vary from 0.817 to 0.921, demonstrating a strong relationship between the items and their respective components, implying a cohesive and meaningful structure within the MO variable.
- Green Entrepreneurship (GE): Five components (GE1-GE5) were isolated. The component loadings vary from 0.790 to 0.962, demonstrating a significant relationship between the items and their respective components, implying a well-defined and interpretable structure inside the GE variable.

4.4. Convergent validity

Convergent validity involves evaluating the alignment of an item with the theoretical construct it was intended to measure. Likewise, discriminant validity entails examining the degree to which measures are correlated with their intended constructs and unrelated to others. Convergent Validity and Discriminant Validity assessments were conducted to ascertain the degree of convergence and discrimination among the constructs in the study. Convergent validity (Claes Fornell, 1981) encompasses the following:

- The composite reliability (CR) ought to exceed 0.80.
- The average variance extracted (AVE) for each construct should surpass 0.50.

Hence, the measurement scale demonstrates convergent validity. The final column has examined correlations among all constructs, with values notably below 0.90. Additionally, the square root of the average variance extracted (AVE) for all latent variables exceeds the correlations between the variables (Claes Fornell, 1981). The results in Table 4.5 satisfy all the conditions for discriminant validity.

Table 10 Convergent & Discriminant Validity

Variable	Composite Reliability	AVE	MSV	Correlation
Regulatory Support (RS)	0.898	0.640	0.374	0.800
Entrepreneurial Management Ability (EMA)	0.921	0.701	0.374	0.837
Entrepreneurial Technical Ability (ETA)	0.857	0.607	0.334	0.779
Market Opportunity (MO)	0.914	0.779	0.348	0.883
Green entrepreneurship (GE)	0.873	0.579	0.160	0.761

The table 10 shows the composite reliability, average variance extracted (AVE), maximum shared variance (MSV), and correlation coefficients for variables such as regulatory support (RS), entrepreneurial management ability (EMA), entrepreneurial technical ability (ETA), market opportunity (MO), and green entrepreneurship (GE). Overall, the variables have excellent composite reliability and substantial correlations, indicating that constructs are measured robustly and consistently.

4.5. Confirmatory factor analysis (CFA)

The most commonly employed technique for validating a measurement model is confirmatory factor analysis (CFA), which aims to confirm the factor structure of the measurement model. Confirmatory factor analysis assesses the extent to which the hypothesized factor structure aligns with the collected data. Furthermore, it elucidates the patterns in the data by examining the relationships between observed and unobserved variables, considering the loadings of all observed variables (Byrne, 2012)

The initial model fit did not meet the minimum requirements for model fit indices, with values such as CFI < 0.90, TLI < 0.90, GFI < 0.90, and RSMEA > 0.06 falling below the threshold shows a poor fit (Hu, 1998). To address this, several modification indices were examined to covariate redundant unobserved variables (residuals) and align the model with the minimum criteria for a satisfactory measurement model fit.

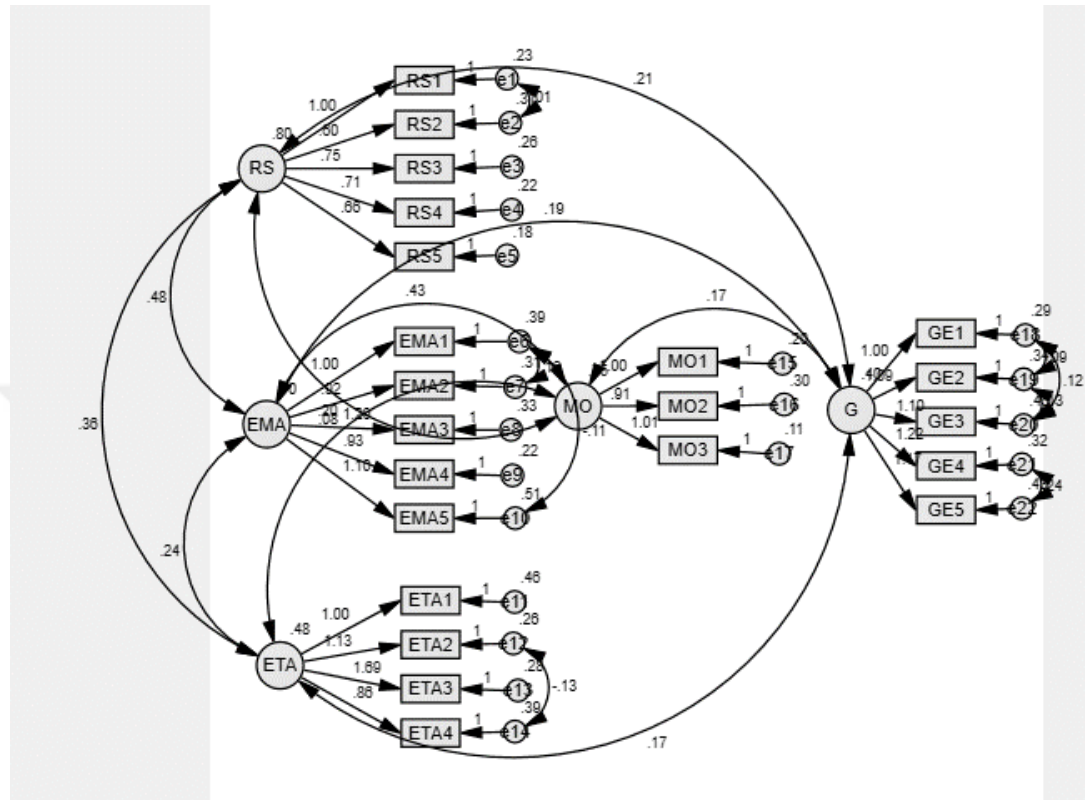
Table 11 Confirmatory Factor Analysis

	Chi-square	Df	CMIN/DF	RSMEA	GFI	TLI	CFI
Initial Model	909.647	199	4.571	0.095	0.817	0.874	0.891
Modified Model	534.463	191	2.798	0.067	0.900	0.936	0.947

The above tables 10 & 11 shows that adjusted model performs significantly better, with lower Chi-square, CMIN/DF, and RSMEA values and higher GFI, TLI, and CFI values, showing a better fit to the data and implying that the improvements improved the model's overall goodness-of-fitness.

Prior to hypothesis testing, confirmatory factor analysis was carried out to assess the construct validity and factor structure of both observed and unobserved variables. Confirmatory factor analysis not only reveals a more fitting model but also allows for the identification and potential removal of specific items in the measurement scale. In this study, the evaluation of confirmatory factor analysis was performed using AMOS software, and no items were discarded after achieving a satisfactory model fit, as indicated by loadings on variables. Through subsequent modifications, the threshold values necessary for achieving the best model fit indices were attained (Hair, 2011)

Figure 7 Confirmatory Factor Analysis



Source: Created by Author

4.6. Control Variable

In the initial phase of analysis, demographic variables are incorporated to enhance the precision of sample estimates and examine their impact on the variables within the model. These variables furnish insights into their respective influences on the proposed model (Cooksey, 2020). The questionnaire featured various demographic variables, such as gender, education, experience, designation, and department. One-way ANOVA was employed to assess the effects of these variables. Results indicate no significant influence of control variables like gender, age and tenure on green entrepreneurship. Results yielded age ($t = .541, p > 0.05$), gender ($t = 1.211, p > 0.05$) and tenure ($t = -.170, p > 0.05$). Similarly, no significant influence of control variables like gender,

age and tenure on regulatory support as age ($t = 1.838, p > 0.05$), gender ($t = 2.601, p > 0.05$) and tenure ($t = -.951, p > 0.05$). Likewise age ($t = 1.741, p > 0.05$), gender ($t = 1.211, p > 0.05$) and tenure ($t = -.735, p > 0.05$) have no impact on exploring market opportunities.

4.7. Descriptive Statistics

Descriptive statistics involve the use of numerical measures to summarize and describe essential features of a dataset. These measures provide a concise overview of the central tendency, variability, and distribution of the data (George, 2018). Multivariate correlation further conducted to analyze nature and strength of correlation among different variables **(see Table 4.7). (The relationship between canonical correlation analysis and multivariate multiple regression).**

Table 12 Descriptive Analysis by Variables

						Skewness	
Variable	N	Min	Max	Mean	Std. Deviation	Statistics	Std. Error
RS	400	2.00	5.00	3.840	.702	-.644	.122
EMA	400	1.60	5.00	3.734	.921	-.576	.122
ETA	400	1.75	5.00	3.846	.853	-.480	.122
MO	400	1.00	5.00	3.907	.883	-1.207	.122
GE	400	2.00	5.00	3.832	.786	-.538	.122

This table 12 provides comprehensive information on the descriptive statistics for the variables in the study. It includes the minimum, maximum, and mean values for each variable. Additionally, it presents measures of skewness and standard deviation from the mean. It's worth noting that the minimum and maximum values for each variable range from 1 to 5, reflecting anchored responses on a scale from 1 (strongly disagree) to 5 (strongly agree). Mean value of regulatory support is 3.840 with standard deviation of 0.702, illustrates more individuals hold

regulatory support for green entrepreneurship. Mean value of Entrepreneurial Management Ability is 3.734 with standard deviation of 0.921 depicts good entrepreneurial ability managed by individuals. Mean value of Entrepreneurial Technical Ability is 3.864 with standard deviation of 0.853 implies Entrepreneurial Technical Ability in respondents. Mean value of market opportunities suitable for green entrepreneurship are 3.907 with standard deviation of 0.883 and 3.833 with standard deviation of .786 respectively. Among all variables the regulator support and Entrepreneurial Technical Ability has highest meanwhile Entrepreneurial Management Ability has lowest mean.

4.8. Correlation Analysis

Correlation serves as a measure of both the strength and direction of the association between two variables, indicating whether they exhibit similar or opposite behaviors. Importantly, it does not imply causation between the variables. In this study, the chosen correlation coefficient is the widely utilized Pearson correlation coefficient, which assesses the correlation between two variables. The Pearson correlation coefficient values range from -1.00 to +1.00, signifying the strength and direction of the correlation: -1.00 indicates a perfect negative correlation, 1.00 signifies a perfect positive correlation, and 0 suggests no linear correlation between the variables.

Table 13 Correlation of Overall

Variable	RS	EMA	ETA	MO	GE
Regulatory Support (RS)	1				
Entrepreneurial Management Ability (EMA)	0.556**	1			
Entrepreneurial Technical Ability (ETA)	0.525**	0.399**	1		
Market Opportunity (MO)	0.246**	0.551**	0.136**	1	
Green entrepreneurship (GE)	0.316**	0.288**	0.347**	0.267**	1

****.** Correlation is significant at 0.01 level (2-tailed).

Table 13 displays that Regulatory support has a positive relationship with green entrepreneurship ($r = 0.316$, $p < .01$). Entrepreneurial Management Ability has positive link with green entrepreneurship ($r = 0.288$, $p < .01$). Further Entrepreneurial Technical Ability has positive association with green entrepreneurship ($r = 0.347$, $p < .01$). Market opportunities contribute positively in green entrepreneurship ($r = 0.267$, $p < .01$). All the independent constructs are positively and significantly associated with market opportunities.

4.9. Test of Direct Effects

- Hypothesis 1: Regulatory support significantly and positively effects market opportunity.
- Hypothesis 2: Entrepreneurial Management Ability significantly and positively effects on market opportunity.
- Hypothesis 3: Entrepreneurial Technical Ability significantly and positively effects on market opportunity.
- Hypothesis 4: Market opportunity significantly and positively effects green entrepreneurship.
- Hypothesis 5: Regulatory Support significantly and positively effects green entrepreneurship.
- Hypothesis 6: Entrepreneurial Management Ability significantly and positively effects green entrepreneurship.
- Hypothesis 7: Entrepreneurial Technical Ability significantly and positively effects green entrepreneurship.

Table 14 Regression Results of RS on MO

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	β	Std. Error	β		
(Constant)	2.717	.239		11.390	.000
Regulatory Support	.310	.061	.246	5.070	.000
	R	R²	Adjusted R²	S.E	F
	.246	.061	.058	.85722	25.708
<i>Dependent Variable: Market Opportunity</i>					

The table 14 above describes the positive association between regulatory support and market opportunity ($\beta = .246$, $p < 0.01$). Hence hypothesis H1 regulatory support is significantly and positively associated with market opportunity, is accepted.

Table 15 Regression Results of EMA on MO

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	β		
(Constant)	1.936	.154		12.557	.000
Regulatory Support	.528	.040	.551	13.167	.000
	R	R²	Adjusted R²	S.E	F
	.551	.303	.302	.73819	173.381
<i>Dependent Variable: Green Entrepreneurship</i>					

The table 15 above designates the positive association between regulatory support and market opportunity ($\beta = .551$, $p < 0.01$). Hence hypothesis H₂ entrepreneurial management ability is significantly and positively associated with market opportunity, has acknowledged.

Table 16 Regression Results of ETA on MO

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	β		
(Constant)	3.367	.203		16.626	.000
Entrepreneurial Technical Ability	.140	.051	.136	2.732	.000
	R	R²	Adjusted R²	S.E	F
	.136	.018	.016	.87630	7.465
<i>Dependent Variable: Market Opportunity</i>					

Above constructed table 16 defines the positive association between Entrepreneurial Technical Ability and market opportunity ($\beta = .136$, $p < 0.01$). Hence hypothesis H3 Entrepreneurial Technical Ability is significantly and positively associated with market opportunity, has approved.

Table 17 Regression Results of MO on GE

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	β		
(Constant)	2.904	.172		16.866	.000
Market Opportunity	.238	.043	.267	5.530	.000
	R	R²	Adjusted R²	S.E	F
	.267	.071	.069	.75838	30.581
<i>Dependent Variable: Green Entrepreneurship</i>					

Above made table 17 states according to the proposed hypothesis that there is positive association between market opportunity and green entrepreneurship ($\beta = .136$, $p < 0.01$). Hence hypothesis H₄ has ratified.

Table 18 Regression Results of RS on GE

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	β		
(Constant)	2.476	.208		11.911	.000
Market Opportunity	.353	.053	.316	6.637	.000
	R	R²	Adjusted R²	S.E	F
	.316	.100	.097	.74675	44.044
<i>Dependent Variable: Green Entrepreneurship</i>					

This table 18 provides evidence about regulatory support and Green Entrepreneurship has positively and significantly related to each other ($\beta = .316$, $p < 0.01$). Hence hypothesis H5 has been proved.

Table 19 Regression Results of EMA on GE

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	β		
(Constant)	2.916	.157		18.524	.000
Entrepreneurial Management Ability	.245	.041	.288	5.994	.000
	R	R²	Adjusted R²	S.E	F
	.288	.083	.080	.75370	35.980
<i>Dependent Variable: Green Entrepreneurship</i>					

Table 20 Regression Results of ETA on GE

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	β		
(Constant)	2.603	.171		15.261	.000
Entrepreneurial Technical Ability	.320	.043	.347	7.380	.000
	R	R²	Adjusted R²	S.E	F
	.347	.120	.118	.73810	54.464
<i>Dependent Variable: Green Entrepreneurship</i>					

The tables 19 & 20 display results of H6 and H7 and proves that there is significant and positive association between Entrepreneurial Management and Ability Entrepreneurial Technical Ability with Green Entrepreneurship respectively.

4.10. Test of Indirect Effects (Mediation)

- Hypothesis 8: Market opportunity has a mediator role between regulatory support and green entrepreneurship.
- Hypothesis 9: Market opportunity has a mediator role between entrepreneurial management ability and green entrepreneurship.
- Hypothesis 10: Market opportunity has a mediator role between entrepreneurial technical ability and green entrepreneurship.

For mediation analysis we opted bootstrapping estimation method at 5% significance level to analyze total, direct and indirect effects elaborated by (Hayes, 2012) by as Hayes Process Macro Model 4 through SPSS. Partial mediation implies that there is both a direct and an indirect

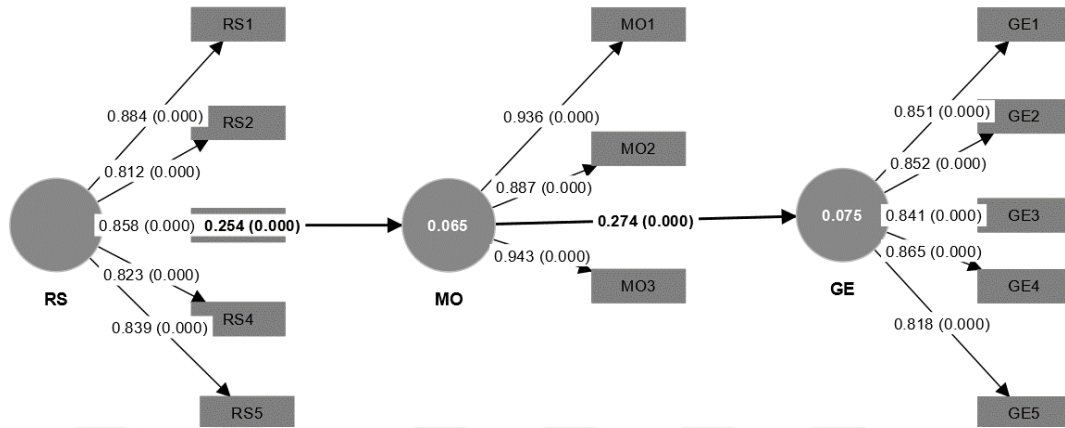
effect, whereas full mediation suggests that the indirect effect through the mediator completely explains the relationship, and the direct effect becomes insignificant (Tingley, 2014). The results are as following:

Table 21 Indirect Effect of RS on GE

Effects	Effect Sizes	Standard Error	95% Confidence Interval	
			LLCI	ULCI
Direct Effect of RS on GE	0.298	0.054	0.209	0.386
Indirect Effect of RS on GE	0.056	0.022	0.024	0.095
Total Effects	0.353	0.053	0.266	0.441

Above constructed table 21 depicts the results of mediation analysis presented H8-H10, which proposed market opportunity mediates the relationship between regulatory support and green entrepreneurship. Therefore, all variables are mean centered prior to proposed analysis to enhance interpretability of results (Cohen, 2013). The results spectacle the direct, indirect and total effects of hypothesis. Here found significant direct effects of regulatory support and green entrepreneurship with ($\beta = 0.298$, $SE = 0.054$, $CI = 0.209$; $UL = 0.386$). The indirect effect of regulatory support and green entrepreneurship through market opportunity was also significant with ($\beta = 0.056$, $SE = 0.022$, $CI = 0.024$; $UL = 0.095$). Lastly, total effects comprising direct and indirect effect of regulatory support and green entrepreneurship was also maintained with ($\beta = 0.353$, $SE = 0.053$, $CI = 0.266$; $UL = 0.441$). The bias-corrected confidence interval excludes zero and having same sign and above results possess partial mediation. Hence, H8 is accepted. We found regulatory support as predictor of green entrepreneurship with increase market opportunities.

Figure 8 Path coefficient of RS ► MO ► GE



Source: Created by Author

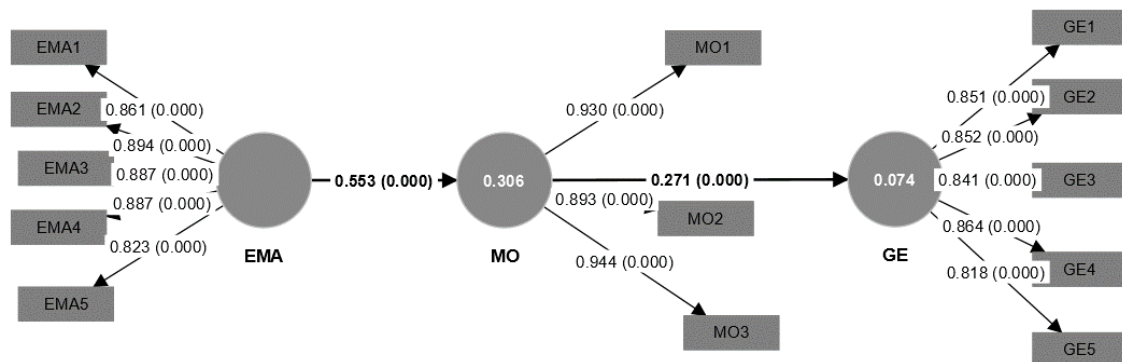
Figure illustrate the path coefficients of indirect effects of regulatory support and green entrepreneurship through market opportunity. In the context of Structural Equation Modeling (SEM) and specifically using the Partial Least Squares (PLS) algorithm, a path coefficient represents the strength and direction of the relationship between two latent variables or between an observed variable and a latent variable (Kock, 2014). The above figure is also demonstrating significant direct and indirect effects with outer model containing factor loadings with p-values and inner model is showing path coefficients along with p-values.

Table 22 Indirect Effect of EMA on GE

Effects	Effect Sizes	Standard Error	95% Confidence Interval	
			LLCI	ULCI
Direct Effect of EMA on GE	0.172	0.049	0.092	0.252
Indirect Effect of EMA on GE	0.073	0.033	0.020	0.129
Total Effects	0.245	0.041	0.178	0.313

Table 22 results demonstrate the direct, indirect and total effects of hypothesis. Here found significant direct effects of EMA and green entrepreneurship with ($\beta = 0.172$, $SE = 0.049$, $CI = 0.092$; $UL = 0.252$). The indirect effect of entrepreneur management ability and green entrepreneurship through market opportunity was also significant with ($\beta = 0.073$, $SE = 0.033$, $CI = 0.020$; $UL = 0.129$). Lastly, total effects comprising direct and indirect effect of entrepreneur management ability and green entrepreneurship was also maintained with ($\beta = 0.245$, $SE = 0.041$, $CI = 0.178$; $UL = 0.313$). The bias-corrected confidence interval excludes zero and having same sign and above results possess partial mediation. Hence, H_9 has established.

Figure 9 Path coefficient of EMA $\rightarrow$ MO $\rightarrow$ GE



Source: Created by Author

The figure also signifying direct and indirect effects with outer model containing factor loadings with p-values and inner model is showing path coefficients along with p-values.

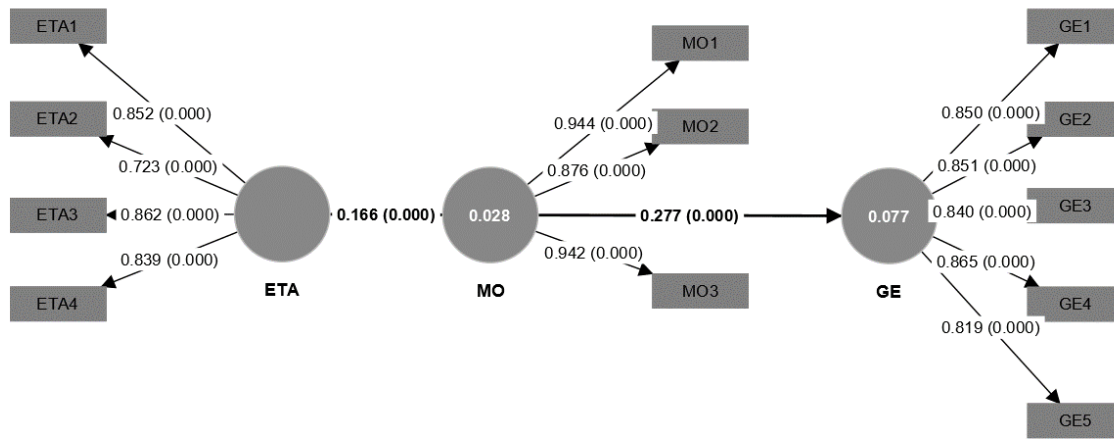
Table 23 Indirect Effect of ETA on GE

Effects	Effect Sizes	Standard Error	95% Confidence Interval	
			LLCI	ULCI
Direct Effect of ETA on GE	0.292	0.043	0.221	0.362
Indirect Effect of ETA on GE	0.028	0.015	0.008	0.056
Total Effects	0.320	0.043	0.248	0.391

Table 23 illustrates the indirect impact of entrepreneurial technical ability (ETA) on green entrepreneurship (GE).

The results of further analysis validate the direct, indirect and total effects of hypothesis. Here found significant direct effects of entrepreneur technical ability and green entrepreneurship with ($\beta = 0.172$, $SE = 0.043$, $CI = 0.221$; $UL = 0.362$). The indirect effect of entrepreneur management ability and green entrepreneurship through market opportunity was also significant with ($\beta = 0.028$, $SE = 0.015$, $CI = 0.008$; $UL = 0.056$). Lastly, total effects comprising direct and indirect effect of entrepreneur technical ability and green entrepreneurship was also maintained with ($\beta = 0.320$, $SE = 0.043$, $CI = 0.248$; $UL = 0.391$). The bias-corrected confidence interval excludes zero and having same sign and above results possess partial mediation. Hence, H10 has proven.

Figure 10 Path coefficient of ETA ► MO ► GE



Source: Created by Author

All hypothesis confirmation of this study can be summarized below Table 24:

Table 24 Hypothesis Results

Hypothesis		Approve	Reject
H1	Regulatory support significantly and positively effects market opportunity.	Yes	
H2	Entrepreneurial Management Ability significantly and positively effects on market opportunity	Yes	
H3	Entrepreneurial Technical Ability significantly and positively effects on market opportunity.	Yes	
H4	Market opportunity significantly and positively effects green entrepreneurship	Yes	
H5	Regulatory Support significantly and positively effects green entrepreneurship.	Yes	
H6	Entrepreneurial Management Ability significantly and positively effects green entrepreneurship.	Yes	

H7	Entrepreneurial Technical Ability significantly and positively effects green entrepreneurship.	Yes	
H8	Market opportunity has a mediator role between regulatory support and green entrepreneurship.	Yes	
H9	Market opportunity has a mediator role between entrepreneurial management ability and green entrepreneurship.	Yes	
H10	Market opportunity has a mediator role between entrepreneurial technical ability and green entrepreneurship.	Yes	

4.11. Discussion Of Results

The study sought to analyze the links among regulatory support, entrepreneurial managerial ability, entrepreneurial technical ability, market opportunity, and green entrepreneurship. All hypotheses were validated by careful analysis and empirical data, demonstrating the importance of numerous elements in developing green entrepreneurship.

To begin, regulatory support was shown to have a considerable and beneficial impact on market potential (H1). This shows that favorable regulatory regimes encourage the identification and exploitation of green market potential. Similarly, entrepreneurial management ability (H2) and entrepreneurial technical ability (H3) were found to have a substantial and positive impact on market opportunity, underscoring the relevance of managerial and technical competences in identifying and capitalizing on green market opportunities.

Furthermore, market opportunity was found to have a strong and positive influence on green entrepreneurship (H4). This indicates that the availability of feasible market prospects is critical in encouraging green entrepreneurial initiatives. Furthermore, regulatory support (H5),

entrepreneurial management ability (H6), and entrepreneurial technical ability (H7) were all found to have a significant and positive impact on green entrepreneurship, emphasizing the multifaceted nature of the factors that influence the emergence and success of green ventures.

The study also looked at how market opportunity acted as a mediator in the linkages between regulatory support, entrepreneurial managerial ability, entrepreneurial technical ability, and green entrepreneurship. It was verified that market opportunity acts as a mediator between regulatory support and green entrepreneurship (H8), entrepreneurial management ability and green entrepreneurship (H9), and entrepreneurial technical ability and green entrepreneurship (H10). This highlights the role of market opportunity as a bridge between external support mechanisms and internal entrepreneurial skills, resulting in actual green business outcomes.

To summarize, the widespread acceptance of all hypotheses emphasizes the relevance of governmental backing, entrepreneurial qualities, and market opportunity in encouraging green entrepreneurship. The findings are useful for policymakers, entrepreneurs, and practitioners looking to encourage sustainable business practices and profit on burgeoning green marketplaces.

If the emphasis was on traditional entrepreneurship rather than green entrepreneurship, the outcomes may be very different. In conventional entrepreneurship, regulatory assistance is often focused on broad corporate advantages such as tax rebates and access to capital, with no particular emphasis on sustainability. As a result, the mediating function of market opportunities may be less prominent, as these incentives are not designed to encourage sustainable activities. In a typical framework, entrepreneurial management would most likely emphasize profit maximization and market share above incorporating sustainable practices. As a result, while

managerial skills would remain important, the tactics adopted would be fundamentally different from those used in green.

Furthermore, technical aptitude in conventional entrepreneurship would include a diverse set of abilities applicable to a variety of businesses, with an emphasis on technological innovation and productivity rather than sustainability. Overall technology improvements, rather than green technologies, will form the mediator function of market potential. Market potential in conventional entrepreneurship would be determined by consumer demand, economic trends, and competitive dynamics, with a greater emphasis on profitability and market expansion than on environmental effect. These distinctions emphasize the particular problems and possibilities that green entrepreneurship presents, as well as the need of context-specific tactics and legislation for promoting sustainable business practices.

Conclusion

This thesis investigates the complex linkages between regulatory support, entrepreneurial management & technological ability, and the influence on green entrepreneurship, with a particular emphasis on the mediating function of market opportunity. The research highlights the need of regulatory support in promoting green entrepreneurship. Authors such as (Smith, 2020) claim that legislative frameworks are crucial in creating an atmosphere favorable to sustainable activities. They contend that policies may either directly encourage green entrepreneurship or indirectly impact it by establishing market circumstances favorable to long-term projects. In the context of green entrepreneurship, this thesis presents an in-depth examination of how market opportunity mediates the link between regulatory support, entrepreneurial management, and technical skill. This conclusion synthesizes major findings and ideas by merging a complete literature study with empirical results.

In the literature on green entrepreneurship, innovation appears as a prominent issue. Morrison and Hughes (2022) research emphasizes the need of innovation not just in product or service creation, but also in the overall business process and model. This innovation is frequently driven by the need to adapt to and capitalize on market possibilities offered by changing regulatory frameworks and customer preferences. Green entrepreneurship's innovative techniques are viewed as critical to attaining both sustainability and a competitive edge.

Another important topic covered in the literature is the global setting and its influence on green entrepreneurship. Chang and Kumar (2021) look at how global environmental policies, worldwide market trends, and cross-border partnerships affect green entrepreneurship.

The literature on green entrepreneurship and entrepreneurial management emphasizes the relevance of managerial abilities in capitalizing on possibilities generated by favorable regulatory regimes. According to (Johnson, 2019), good entrepreneurial management entails not just the strategic use of resources, but also the capacity to traverse regulatory environments and market dynamics. This expertise is critical for green enterprises in finding and capitalizing on market possibilities.

As mentioned by writers such as (Green, 2021), technical ability is another pillar in the green entrepreneurship ecosystem. According to their findings, technical competence, particularly in green technology and sustainable practices, is critical for identifying and capitalizing on market possibilities. This technical knowledge helps entrepreneurs to link their business models with environmental sustainability, allowing them to capitalize on market possibilities created by legislative backing and evolving consumer preferences. Managerial and technical talents are viewed as drivers of innovation and sustainability in green entrepreneurship, not merely as commercial capabilities. These skills help entrepreneurs to recognize and respond to environmental concerns with innovative solutions, transforming prospective market possibilities into profitable green companies.

This thesis makes a significant contribution by investigating market opportunity as a mediator in the interaction between regulatory assistance, entrepreneurial management, technical skill, and green entrepreneurship. (White, 2022) go into great detail about this notion, claiming that market opportunities operate as a bridge, transforming the advantages of regulatory backing and entrepreneurial talents into profitable green entrepreneurial businesses. According to their findings, even the most strong regulatory frameworks and advanced entrepreneurial abilities may not completely achieve their promise in supporting green entrepreneurship in the absence of

feasible market possibilities. In the literature, market opportunity emerges as a significant trigger. Market possibilities not only bridge the gap between regulatory support and entrepreneurial activity, but also increase the effect of entrepreneurial efforts in green companies. They say that green entrepreneurs must have a strong awareness of market dynamics, consumer trends, and future prospects in order to effectively traverse the complicated environment of sustainable business.

Authors such as Wilson and Thomas (2021) explore how green entrepreneurship may be both a driver and a beneficiary of environmentally friendly economic policy. They contend that green enterprises may be economically viable and successful while simultaneously contributing to environmental sustainability, especially when backed by suitable legal frameworks.

Scholars such as Jackson and Peters (2020) emphasize the significance of green entrepreneurship in improving sustainable company practices that go beyond profit-making. They stress that green entrepreneurs frequently prioritize environmental and social aims alongside economic ones, exemplifying a holistic approach to company that customers and stakeholders are increasingly demanding.

Regulatory Support and Market Opportunity (H1): The empirical findings suggesting a positive connection ($\beta = .246$, $p < 0.01$) support the literature's assertion that regulatory frameworks play a substantial role in determining market prospects for green entrepreneurship.

Entrepreneurial Management Ability and Market Opportunity (H2): The substantial positive association ($\beta = .551$, $p < 0.01$) between entrepreneurial management ability and market opportunity is consistent with theoretical ideas regarding the relevance of management abilities in recognizing and exploiting market opportunities.

Entrepreneurial Technical Ability and Market Opportunity (H3): This positive connection ($\beta = .136$, $p < 0.01$) supports the literature's claim that technical abilities are critical for capitalizing on market prospects in the green sector.

Market Opportunity and Green Entrepreneurship (H4): This hypothesis was validated ($\beta = .136$, $p < 0.01$), which is consistent with the literature, stressing the direct effect of market circumstances on the success of green entrepreneurial enterprises.

Regulatory support and Green Entrepreneurship (H5): Empirical data ($\beta = .316$, $p < 0.01$) supports the literature's conclusion that regulatory assistance has a direct beneficial impact on green entrepreneurship.

Entrepreneurial Management and Technical Abilities with Green Entrepreneurship (H6 & H7): Green Entrepreneurship requires entrepreneurial management and technical skills. The findings demonstrate the importance of both entrepreneurial management and technical talents in encouraging green entrepreneurship, mirroring the literature's emphasis on multiple capabilities.

Market Opportunity's Mediating Role (H8, H9, & H10): The empirical findings show that market opportunity plays a mediating role in the link between regulatory support, entrepreneurial talents, and green entrepreneurship, with substantial direct, indirect, and total impacts. This discovery lends empirical support to theoretical claims about the complexities of these interactions.

This thesis' detailed study elucidates the delicate interplay between regulatory support, entrepreneurial management, technological skill, and their aggregate influence on green entrepreneurship, with market opportunity serving as a critical mediating factor. The empirical

findings not only verify the stated assumptions, but they also contribute to the theoretical debate by offering real proof of these processes in action.

Thus, the thesis makes a substantial contribution to our knowledge of green entrepreneurship by exposing how legal frameworks, entrepreneurial talents, and market conditions all work together to define the environment for sustainable business practices. It emphasizes the significance of a supportive regulatory framework, competent management, and strong technical skills, all of which must come together through the essential intermediary of market opportunity to generate successful green entrepreneurship.

Green entrepreneurship literature emphasizes the critical role of regulatory support in creating an environment favorable to sustainable company practices. Regulatory frameworks, according to studies, can either promote or impede green entrepreneurial (Smith, 2020). As noted in the literature, entrepreneurial management talent is critical in spotting and capitalizing on these possibilities, particularly in the dynamic and often uncertain domain of green entrepreneurship (Johnson, 2019). Furthermore, technical competence is acknowledged in the literature as a vital aspect, emphasizing its relevance in producing creative and sustainable solutions.

Culture significantly influences the dynamics of green entrepreneurship. Future study should include cultural analysis to better understand how cultural elements affect regulatory support, entrepreneurial management, technical aptitude, and market potential in the context of green entrepreneurship. Policymakers, educators, and entrepreneurs may build more personalized and successful ways to encourage sustainable entrepreneurship practices across varied cultural contexts by recognizing and resolving cultural differences.

Recommendation

Academicians

Future research could look at the importance of market opportunity in many green industrial sectors (for example, renewable energy, sustainable agriculture, and waste management). This would aid in understanding industry-specific dynamics and how regulatory assistance and entrepreneurial management impact them (York, 2010). Examine the efficacy of various forms of regulatory assistance (e.g., subsidies, tax breaks, regulatory relief) in promoting market prospects for green entrepreneurship. This might give insights into policy formulation for long-term corporate practices (Cohen, 2007).

Investigate how technological breakthroughs (e.g., renewable energy technologies, sustainable materials) affect market potential and how entrepreneurs might use these innovations to improve their business models (Hall, 2012). Examine how market possibilities are viewed and exploited differently in global vs local situations. This may offer light on how global trends interact with local market conditions to impact green entrepreneurship (Zahra, 2011).

The unique entrepreneurial abilities and competencies (e.g., risk-taking, innovation, strategic planning) that are most effective in capitalizing on green sector market prospects. This would aid in the implementation of focused green entrepreneur training and development programs (Morris, 2011). Research how the consumer attitudes about green products and services to see how market demand effects business potential. This would assist in the development of more customer-focused green business strategies (Luchs, 2010)

How socio-cultural variables affect the identification and utilization of market possibilities in green entrepreneurship. Understanding cultural views toward sustainability can help market strategists (Spence, 2011). Encourage multidisciplinary research that combines environmental

science, business, and technological ideas to generate a more comprehensive knowledge of green entrepreneurship (Cohen, 2008)

Academics should promote interdisciplinary research that connects technical skills with market-oriented methods. Researchers can investigate novel ways to green entrepreneurship by encouraging interactions between disciplines such as business, engineering, and environmental sciences. Furthermore, concentrating on comparison research across geographies and regulatory settings would give useful insights into the results' worldwide application.

Finally, fostering an entrepreneurial attitude in academic institutions is critical. Academicians may give students and researchers with hands-on experience discovering and capitalizing on market possibilities by including experiential learning opportunities such as incubators and accelerators. This holistic strategy will provide future entrepreneurs with the skills and knowledge required to create long-term innovation and success.

Governments

Governments should explore developing laws that not only encourage but also actively generate market possibilities for green entrepreneurs. Subsidies, tax breaks, and prioritizing green procurement are all examples of this (Cohen, 2007). Modules focusing on managing and capitalizing on market possibilities, particularly suited for green initiatives, should be included in educational institutions and company incubators (Dean, 2007).

Through specialized training programs and seminars, greater emphasis should be placed on acquiring technical skills related to green technology and sustainable (Nambisan, 2017). Encourage collaboration among governmental agencies, educational institutions, and green firms to build a more unified environment that fosters green entrepreneurship growth.

Encourage firms, particularly those in the green sector, to invest in R&D. Innovation may be a crucial differentiator in the market, giving organizations who are early adopters of new green technology or practices a competitive edge (Schaltegger, 2011). Facilitating networking opportunities and collaborations among green entrepreneurs, investors, and other stakeholders can help green companies expand faster. This collaboration might result in the exchange of best practices, joint ventures, or even the creation of new market possibilities (York, 2010).

Collaboration between government agencies and educational institutions is critical for cultivating an environment that fosters technical talents and entrepreneurial management capabilities. Governments should promote efforts that offer training and resources to aspiring green entrepreneurs, such as workshops, mentorship programs, and access to cutting-edge technology. Establishing public-private partnerships might help to strengthen these initiatives by pooling resources and expertise from different sectors.

To successfully capitalise on market possibilities, governments must engage in extensive market research and data collecting initiatives. By making this data available, green businesses may discover developing market trends and possibilities. Furthermore, governments should encourage the construction of green business networks and incubators that allow entrepreneurs to interact, exchange best practices, and access important market information.

International collaboration is also important. Governments should participate in global discussions to learn from the effective regulatory frameworks and market tactics used by other nations. This knowledge sharing can assist to improve domestic policies and guarantee that they are in line with global sustainability objectives.

Transparency and stakeholder participation should be prioritized by governments during policymaking processes. Governments can guarantee that green policies are feasible, broadly accepted, and successfully handle the issues that green entrepreneurs encounter by incorporating entrepreneurs, industry experts, and the general public in the formulation process. This inclusive strategy will help to build a strong and vibrant green entrepreneurial ecosystem, therefore supporting long-term economic growth and environmental preservation.

Corporate

Businesses should perform market assessments on a regular basis to identify changing customer attitudes toward sustainability. Increasing customer understanding of the benefits of eco-friendly products can also help increase market demand (Crals, 2005). Encouraging green entrepreneurs to use sustainable supply chain strategies not only minimizes environmental impact, but also increases efficiency and lowers costs in the long term (Seuring, 2008).

The interaction of market opportunity, regulatory backing, entrepreneurial management, and technical aptitude is critical for green entrepreneurship success. Stakeholders, including legislators, educators, and industry leaders, must work together to foster and promote green entrepreneurship for long-term growth. Highlight the interdependence between regulatory backing, entrepreneurial management, technical aptitude, and market prospects. Recognize the complex and dynamic context in which green entrepreneurship occurs. Encourage a holistic approach to green entrepreneurship, understanding that success is about more than just individual enterprises, but also about fostering an environment that encourages long-term development and innovation.

To truly capitalize on these market possibilities, organizations need develop strong entrepreneurial management practices that promote sustainability. This involves creating a

business culture that promotes creativity and risk-taking in green activities. Companies that integrate sustainability into their fundamental business strategy can better detect and capitalize on market gaps, transforming regulatory restraints into competitive advantages.

Developing technical capacity is another crucial aspect. Businesses should invest in R&D to help improve green technology and sustainable practices. Collaborating with academic institutions and industry partners can give access to cutting-edge developments while also improving technical competence. This partnership may result in the creation of innovative goods and services that fulfill market demands while complying to sustainability standards.

Furthermore, organizations should conduct proactive market research to keep ahead of trends and customer preferences. Data analytics may give insights into developing market possibilities, allowing firms to make more informed decisions and position themselves strategically in the green economy.

Finally, corporations should take a collaborative approach, working with other businesses, government agencies, and non-profit organizations to push collective action toward sustainability. Businesses may have a greater influence and contribute to a more sustainable global economy by sharing their expertise, resources, and practices. This combined effort will not only improve individual firm performance, but will also create a strong ecosystem for green entrepreneurship, resulting in long-term economic and environmental advantages.

References

- Adams, R., Jeanrenaud, S. & Bessant, J., 2013. Sustainability-oriented innovation: a systematic review. *International Journal of Management Reviews*.
- Barney, J., 1991. Firm resources and sustained competitive advantage. *Journal of Management*, 17(1), pp. 99-120.
- Bartlett, M. S., 1950. Tests of significance in factor analysis. *British journal of psychology*, Volume 3, pp. 77-85.
- Bas, C. L., 2016. LE BAS, C. 2016. Frugal innovation, sustainable innovation, reverse innovation: why do they look alike? Why are they different?. *Journal of Innovation Economics & Management*, pp. 9-26.
- Baumol, W. J., 1990. Entrepreneurship: Productive, unproductive, and destructive. *Journal of Political Economy*, 98(5), pp. 893-921.
- Bernstein, I. H. & T. G., 1989. Factoring items and factoring scales are different: Spurious evidence for multidimensionality due to item categorization. *Psychological bulletin*, 105(3), p. 467.
- Bird, B., 1995. Towards a theory of entrepreneurial. *Firm Emergence and Growth*, pp. 51-72.
- Blumberg, B. C. D. & S. P., 2014. *Business Research Methods*. s.l.:McGraw Hill. .
- Blyler, M. C. R., 2003. Dynamic capabilities, social capital, and rent appropriation: ties that split pies.. *Strat. Manag. J.*, Volume 24, pp. 677-686.
- Burgelman, R. & Sayles, L., 2004. *Transforming invention into innovation: The conceptualization stage. In Strategic Management of*. Boston(MA): McGraw-Hill.
- Byrne, B. M., 2012. A primer of LISREL: Basic applications and programming for confirmatory factor analytic models. *Springer Science & Business Media*.
- Cai, Z. X. Y. a. A. F. ..., 2017. Eco-label credibility and retailer effects on green product purchasing intentions.. *Forest policy and economics*, , Volume 80, pp. 200-208.
- Carpenter, M. S. W. G. H., 2001. Bundling human capital with organizational context: the impact of international assignment experience on multinational firm performance and CEO pay.. *Acad. Manag. J.*, Volume 44, pp. 493-511.
- Chandler, G. N. & J. E., 1992. The founder's self-assessed competence and venture performance. *Journal of Business Venturing*, pp. 223-236.
- Chang, Y. H. J. & Y. S., 2021. The impact of government loan guarantees on green entrepreneurship. *Journal of Cleaner Production*, Volume 298.
- ChenYS, C. C., 2012. Enhance green purchase intentions The roles of green perceived value, green perceived risk, and green trust.. *Management Decision*, pp. 502-520.
- Claes Fornell, D. F. L., 1981. Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research*, pp. 39-50.

- Cohen, B. & W. M. I., 2007. Market imperfections, opportunity and sustainable entrepreneurship.. *Journal of Business Venturing*, pp. 29-49.
- Cohen, B. S. B. & M. R., 2008. Toward a sustainable conceptualization of dependent variables in entrepreneurship research. *Business Strategy and the Environment*, 17(2), pp. 107-119.
- Cohen, J. C. P. W. S. G. & A. L. S., 2013. *Applied multiple regression/correlation analysis for the behavioral sciences*. New York: Routledge.
- Cooksey, R. W., 2020. *Descriptive statistics for summarising data. Illustrating statistical procedures: Finding meaning in quantitative data*. s.l.:Springer Singapore.
- Crals, E. & V. L., 2005. The affordability of sustainable entrepreneurship certification for SMEs. *International Journal of Sustainable Development & World Ecology*, 12(2), pp. 173-183.
- De Franco, G. H. O.-K. L. H., 2017. Managerial ability and bank-loan pricing. *J Bus Fin Acc*, p. 1315–1337.
- Dean, T. J. & M. J. S., 2007. Toward a theory of sustainable entrepreneurship: Reducing environmental degradation through entrepreneurial action.. *Journal of Business Venturing*, , pp. 50-76.
- Delgado, M. P. E. & S. S., 2019. Clusters for Competitiveness: A New Federal Role for Stimulating Regional Economies.. *The Hamilton Project*..
- Drucker, P., 1985. *Innovation and Entrepreneurship: Practice and Principles*. s.l.:Harper & Row..
- Elkington, J., 1994. Towards the sustainable corporation: Win-win-win business strategies for sustainable development. *California Management Review*, 36(2), pp. 90-100.
- Elkington, J., 1997. *Cannibals with forks. The triple bottom line of 21st-century business*.. Oxford: Capstone.
- Emami, D., 2014. Networks and clusters of green entrepreneurship, Social, Economic, Scientific and Cultural Monthly.. *J. Work Soc*, pp. 50-64.
- Estrin, S. M. T. a. S. U., 2013. Entrepreneurship, social capital, and institutions: Social and commercial entrepreneurship across nations.. *Entrepreneurship theory and practice*, 37(3), pp.479-504, pp. 479-504.
- Ferran Giones, S. T. K. K., 2019. The Learning Process in Technology Entrepreneurship Education. *Wiley*.
- Filatova, U., 2020. Environmental entrepreneurship as a type of social entrepreneurship. *EDP Sciences*.
- Filimonau, V., Mika, M. & Pawlusiński, R., 2016. Public attitudes to biofuel use in aviation: Evidence from an emerging tourist market.. *Journal of Clean Production* , p. 3102–3110.
- Fisher Jr, W. P. (. . . , 2. 1., 2007. Rasch measurement transaction. *Transaction of the Rasch Measurement SIG American Educational Research Association*, 21(1), p. 1095.
- Fisher Jr, W. P., 2007. Rasch measurement transaction. *Transaction of the Rasch Measurement SIG American Educational Research Association*, 21(1), p. 1095.
- Follows SB, J. D., 2000. Environmentally responsible purchase behavioral test of a consumer model,. *European journal of marketing*, pp. 723-746.

- Gaughran, W. F. a. B. S. a. P. P., 2007. Intelligent manufacturing and environmental sustainability. *Pergamon Press, Inc.*, Volume 23.
- Gaylen N.Chandler, E. J., 1992. The founder's self-assessed competence and venture performance. *Journal of Business Venturing*, 7(3), pp. 223-236.
- George, D. & M. P., 2018. *Descriptive statistics. In IBM SPSS Statistics 25 Step by Step*. New York: Routledge..
- Gerard George, R. M. a. S. S., 2020. Digital Sustainability and Entrepreneurship: How Digital Innovations Are Helping Tackle Climate Change and Sustainable Development. *Entrepreneurship: Theory and Practice*.
- Gerlach, A., 2001. Sustainable entrepreneurship and innovation. *Centre for Sustainability Management (CSM), University of Lueneburg* .
- Gibbs, D. a. O. K., 2016. Future Green Economies and Regional Development: A Research Agenda. *Regional Studies*, Issue 50, pp. 161-173.
- Green, T. & B. R., 2021. Technical Abilities and Market Opportunities in Sustainable Entrepreneurship. *Journal of Green Technology*.
- Hair, J. F. R. C. M. & S. M., 2011. PLS-SEM: Indeed a silver bullet. *Journal of Marketing theory and Practice*, 19(2), pp. 139-152.
- Hall, J. K. & W. M., 2012. Integrating sustainability into firms' processes: Performance effects and the moderating role of business models and innovation. *Business Strategy and the Environment*, pp. 183-196.
- Hao Jiao, D. Y. M. G. P. X. Y. W., 2016. Entrepreneurial ability and technological innovation: Evidence from publicly listed companies in an emerging economy. *Technological Forecasting & Social Change*.
- Hart, S., 1995. A natural-resource-based view of the firm. *Academy Management Review*, 12(4), p. 991.
- Hasnain Zaheer, Y. B. J. D., 2019. Digital entrepreneurship: An interdisciplinary structured literature review and research agenda. *Technological Forecasting & Social Change*.
- Hessels, J. v. S. A. & S. K., 2008. Entrepreneurial intentions, entrepreneurial attitudes, and the entrepreneur: A comparative study of three countries.. *Journal of Entrepreneurial Behavior & Research*, pp. 366-387.
- Hockerts, K. & W. R., 2010. Greening Goliaths versus emerging Davids – Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship. *Journal of Business Venturing*, 25(5), pp. 481-492.
- Hockerts, K. & W. R., 2010. Greening Goliaths versus emerging Davids—Theorizing about the role of incumbents and new entrants in sustainable entrepreneurship.. *Journal of Business Venturing*, pp. 481-492.
- Hu, L.-t. & B. P. M., 1998. Fit indices in covariance structure modeling: Sensitivity to underparameterized model misspecification. *Psychological methods*, 3(4), pp. 424-453.

- Ireland, R. D. H. M. A. & S. D. G., 2003. A model of strategic entrepreneurship: The construct and its dimensions.. *Journal of Management*, pp. 963-989..
- J.Teece, D., 2016. Dynamic capabilities and entrepreneurial management in large organizations: Toward a theory of the (entrepreneurial) firm. *European Economic Review*, Volume 86, pp. 202-216.
- Jamali, D. & S. Y., 2017. Green entrepreneurship: An innovative business model for addressing environmental challenges.. *Business Horizons*, 60(6), pp. 793-803..
- Jamali, D. & S. Y., 2017. The antecedents and consequences of adopting procurement policies for sustainability-enhancing innovations in developing countries.. *Journal of Business Ethics*, pp. 529-550..
- Johnson, J. & J. K., 2019. The Role of Entrepreneurial Management in Green Ventures. *Entrepreneurship and Innovation Review*..
- Kaiser, H. F., 1974. An index of factorial simplicity. *Psychometrika*, 39(1), pp. 31-36.
- Kaplan, S., 2008. Cognition, capabilities, and incentives: assessing firm response to the fiber-optic revolution.. *Acad. Manag. J*, Volume 51, pp. 672-695.
- Keskin D, D. J. M. N., 2013. Innovation process of new ventures driven by sustainability. *Journal of Cleaner Production*, pp. 50-60.
- Kirzner, I. M., 1973. *Competition and Entrepreneurship*. s.l.:University of Chicago Press.
- KYRGIDOU, I. N. K. a. L. P., 2017. THE CONCEPT OF SUSTAINABLE ENTREPRENEURSHIP: A CONCEPTUAL FRAMEWORK AND EMPIRICAL ANALYSIS.. *Academy of Management*.
- Liliana Doganova, M. E.-R., 2009. What do business models do? Innovation devices in technology entrepreneurship. *Research Policy* .
- Liliya Satalkina, G. S., 2020. Digital Entrepreneurship and its Role in Innovation Systems: A Systematic Literature Review as a Basis for Future Research Avenues for Sustainable Transitions. *sustainability*.
- Luchs, M. G. N. R. W. I. J. R. & R. R., 2010. The sustainability liability: Potential negative effects of ethicality on product preference. *Journal of Marketing*, 74(5), pp. 18-31.
- Luthra, S. K. A. M. S. K. & G. D., 2018. Green entrepreneurship: literature review and future research directions.. *Journal of Cleaner Production*, pp. 576-593..
- Maryam Lotfi, A. Y. S. J., 2018. The Effect of Emerging Green Market on Green Entrepreneurship and Sustainable Development in Knowledge-Based Companies. *Sustainability*, 7(2308).
- Masocha, R., 2018. Does Environmental Sustainability Impact Innovation, Ecological and Social Measures of Firm Performance of SMEs? Evidence from South Africa. *Sustainability* .
- Mazzucato, M. S. G. & R. R., 2017. Financing renewable energy: who is financing what and why it matters.. *Technological Forecasting and Social Change*, pp. 17-29.
- Melville, N. P., 2010. INFORMATION SYSTEMS INNOVATION FOR ENVIRONMENTAL SUSTAINABILITY. *Melville/IS Innovation for Environmental Sustainability*, 34(1), pp. 1-21.

- Menon A, M. A., 1997. Enviropreneurial Marketing Strategy: The Emergence of Corporate Environmentalism as Market Strategy.. *Journal of Marketing*, pp. 51-67.
- Mike Wright, B. C., 2020. Technology Entrepreneurship and Shaping Industries. *Academy of Management Discoveries*, 6(3).
- Morris, M. H. K. D. F. & C. J. G., 2011. Corporate entrepreneurship & innovation. *Cengage Learning*.
- Muñoz, P. & C. B., 2018. Mapping out the sharing economy: A configurational approach to sharing business modeling.. *Technological Forecasting and Social Change*, pp. 21-37.
- Nambisan, S., 2017. Digital Entrepreneurship: Toward a Digital Technology Perspective of Entrepreneurship. *Sage Journals*.
- Nandumuri, D. P., 2015. Entrepreneurial Management Capabilities-The Differential Effect of Role Models. *Journal of Entrepreneurship and Management*, Issue 4, pp. 22-29.
- Nguyen Anh Tuana, D. T. H. H. V. T. B. T., 2019. Factors affecting entrepreneurial intentions among youths in Vietnam. *Children and Youth Services Review*, Volume 99, pp. 186-193.
- Nikolaoua, E., Ierapetritis, D. & Tsagarakis, K., 2011. An evaluation of the prospects of green entrepreneurship development using a SWOT analysis.. *Int. J. Sustain. Dev. World Ecol.*, pp. 1-16.
- Nunnally, J., 1978. *Psychometric theory*. New York: McGraw-Hill.
- OECD, 2019. *Financing and investing in environmentally sustainable infrastructure: practices, challenges and opportunities*., s.l.: OECD Publishing.
- Pablo MUÑOZ, B. C., 2018. SUSTAINABLE ENTREPRENEURSHIP RESEARCH: TAKING STOCK AND LOOKING AHEAD. *Sustainable Entrepreneurship Research*.
- Pacheco, D. F. D. T. J. & P. D. S., 2010. Escaping the green prison: Entrepreneurship and the creation of opportunities for sustainable development.. *Journal of Business Venturing*, pp. 464-480..
- Parker, J. S. L. T. J. a. Z. M., 2014. A maturity model for sustainability in new product development. *Research-Technology Management*, 57(1), pp. 50-57.
- Parris, T. M. & K. R. W., 2003. Characterizing and measuring sustainable development.. *Annual Review of Environment and Resources*, pp. 559-586..
- Pathak, S. & M. E., 2016. Informal Institutions and their Comparative Influences on Social and Commercial Entrepreneurship: The Role of In-Group Collectivism and Inter-Personal Trust.. *Journal of Small Business Management*, Volume 54.
- Peter B. Robinson, J. H., 1991. An Attitude Approach to the Prediction of Entrepreneurship. *Entrepreneurship: Theory & Practice*, Issue 15, pp. 13-31.
- Phil Metz, S. B. T. R. H. S. K. a. L. S., 2016. The Path to Sustainability-Driven Innovation. *Research-Technology Management*, 59(3), pp. 50-61.
- Polonsky MJ, R. P., 2001. Reevaluating Green Marketing: A strategic approach.. *Business Horizon*, pp. 21-30.

- Porter, M. E. & v. d. L. C., 1995. Toward a new conception of the environment-competitiveness relationship. *Journal of Economic Perspectives*, 9(4), pp. 97-118.
- Qing Ye, R. Z. M. A. A. N. S. a. F. A., 2020. Entrepreneurs and Environmental Sustainability in the Digital Era: Regional and Institutional Perspectives. *International Journal of Environmental Research and Public Health*.
- Qu, Y. & Z. L., 2020. What drives green entrepreneurship? Evidence from China.. *Business Strategy and the Environment*, pp. 266-280..
- Rae, D., 2007. *Entrepreneurship: From opportunity to action*.. New York : Basingstoke: Palgrave Macmillan..
- Schaltegger, S. & W. M., 2011. Sustainable entrepreneurship and sustainability innovation: categories and interactions. *Business Strategy and the Environment*, 20(4), pp. 222-237.
- Schumpeter, J. A., 1934. *The Theory of Economic Development*. s.l.:Harvard University Press.
- Seelos, C., Mair, J., Battilana, J. & Tina Dacin, M., 2011. The Embeddedness of Social Entrepreneurship: Understanding Variation across Local Communities. *Emerald Group Publishing Ltd*.
- Sekaran, U. & B. R., 2016. *Research methods for business: A skill building approach*.. s.l.:John wiley & sons.
- Seuring, S. & M. M., 2008. From a literature review to a conceptual framework for sustainable supply chain management. *Journal of Cleaner Production*, 16(15), pp. 1699-1710.
- Sharma NK, K. G., 2015. Emerging Green Market as an Opportunity for Green Entrepreneurs and Sustainable Development in India. *Journal of Entrepreneurship & Organization Management*, p. 134.
- Short, J. C. M. T. W. & L. G. T., 2010. Research in social entrepreneurship: Past contributions and future opportunities. *Strategic Entrepreneurship Journal*, pp. 161-194.
- Singh PB, P. K., 2012. Green Marketing: Policies and Practices for sustainable development.. *Integral Review A Journal of Management*, pp. 22-30.
- Smith, A. & S. B., 2020. Regulatory Frameworks and Their Impact on Green Entrepreneurship. *Journal of Sustainable Business*..
- Spence, L. J. F. J. G. M. J. N. & N. J., 2011. Social Entrepreneurship and Broader Theories: Shedding New Light on the Bigger Picture. *Journal of Social Entrepreneurship*, 2(1), pp. 115-136.
- Teece, D. J. P. G. & S. A., 1997. Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), pp. 509-533.
- Tingley, D. Y. T. H. K. K. L. & I. K., 2014. Mediation: R package for causal mediation analysis.. *Journal of Statistical Software*, 59(5).
- Urban, B. & Kujinga, L., 2017. The institutional environment and social entrepreneurship intentions. *International Journal of Entrepreneurial Behaviors*, Volume 23, p. 638–655.

- Valdez, M. E. & R. J., 2013. Institutional Determinants of Macro–Level Entrepreneurship. *Entrepreneurship Theory and Practice*, 37(5), p. 1149–1175.
- Wagner, S. S. a. M., 2011. Sustainable Entrepreneurship and Sustainability Innovation: Categories and Interactions. *Business Strategy and the Environment*, p. 222–237.
- Wan, C. S. G. a. Y. A., 2014. The role of perceived effectiveness of policy measures in predicting recycling behaviour in Hong Kong.. *Resources, Conservation and Recycling*, pp. 141-151.
- Watkins, M. W., 2018. Exploratory factor analysis: A guide to best practice. *Journal of Black Psychology*, 44(3), pp. 219-246.
- White, D. & B. E., 2022. Market Opportunities as a Mediator in Green Entrepreneurship.. *Business and Environment Journal*.
- William F., G. S. P. P., 2007. Intelligent manufacturing and environmental sustainability. *Robotics and Computer-Integrated Manufacturing*, 23(6), pp. 704-711.
- Xu, L. & L. M. & S. M., 2017. External influences on forming residents' waste separation behaviour: Evidence from households in Hangzhou, China. *Habitat International*, pp. 21-33.
- York, J. G. & V. S., 2010. The entrepreneur–environment nexus: Uncertainty, innovation, and allocation.. *Journal of Business Venturing*, , pp. 449-463.
- Zahra, S. A. & W. M., 2011. Entrepreneurship's next act. *Academy of Management Perspectives*, 25(4), pp. 67-83.
- Zhang, X. & H. H. & Z. R. & D. S., 2014. Interactions between China's economy, energy and the air emissions and their policy implications. *Renewable and Sustainable Energy Reviews*, pp. 624-638.
- Zhao, F. & Collier, A., 2016. DIGITAL ENTREPRENEURSHIP: RESEARCH AND PRACTICE. *Innovation, Entrepreneurship and Digital Ecosystems*.
- Zhigir, A. A., 2021. Financial and credit instruments of activation of environmental entrepreneurship in the agrarian spheres. *Earth and Environmental Science*.