

**EVALUATING THE ROLE OF ENTREPRENEURSHIP
IN NIGERIA'S TRANSITION PATHWAY - A
SUSTAINABLE PRACTICES ADOPTION
PERSPECTIVE**

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**Author: Ogochukwu, Emeka Richard
Subject: International Business and Entrepreneurship
Supervisor: Sufyan, Muhammad**

ABSTRACT

Author Ogochukwu, Emeka Richard	
Title Evaluating The Role Of Entrepreneurship In Nigeria's Transition Pathway - A Sustainable Practices Adoption Perspective.	
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<p>Abstract</p> <p>This study seeks to explore the relationship between entrepreneurs and sustainability transition by looking at the adoption of sustainability practices by entrepreneurs in Nigeria. The study uses interviews to gather qualitative data in order to get a firsthand understanding of the current barriers and drivers that moderate entrepreneurs' willingness and ability to adopt sustainability practices.</p> <p>The data is analyzed using the framework of Three Mechanisms of Institutional Isomorphic Change presented by DiMaggio & Powell (1983) in their paper titled Institutional Isomorphism and Collective Rationality in Organizational Fields. The emergent factors that influence entrepreneurs to adopt more sustainable practices are put into three categories namely coercive, mimetic and normative. Each of these categories offers deeper insights into how the study participants manage sustainability practices currently, and the opportunities for growing the adoption of these practices across entrepreneurs in Nigeria.</p> <p>The research question is: What factors (drivers and barriers) moderate the adoption of sustainability practices among entrepreneurs in Nigeria?</p>	
Keywords Sustainability transition, entrepreneurship, sustainability, organizational practices	
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1 INTRODUCTION

In the last three decades, much attention has been given to the topics of climate change, environmental sustainability and the forces that threaten the health and well-being of the planet (Hörisch, 2015; Xing et al., 2024). While these broad environmental and general sustainability discussions were developed gradually over time in academia, government and corporate contexts, much of the early work of formalizing, categorizing and expanding the substance of the subject matter has been primarily the business of the United Nations (Environment and Development UN, 2024).

The history of sustainable development as a part of the official focal work of the United Nations began with the United Nations Conference on the Human Environment held in Stockholm, Sweden, in 1972. This was the UN's first significant conference addressing environmental issues. Some of these issues are consistent with present reality, including air pollution, GHG emissions, nuclear risks, short- and long-term security of supply, energy poverty and exploitation control have become areas of research that have helped to deepen knowledge and set the direction of progress (Markard et al., 2012).

The conference led to the adoption of the Stockholm Declaration and Plan of Action, which outlined principles for the preservation and enhancement of the human environment and provided recommendations for international environmental action. Additionally, the conference established the United Nations Environment Programme (UNEP), the first UN entity dedicated solely to environmental issues.

Since then, the United Nations has organised conferences and cardinal events in different parts of the world to explore new areas of knowledge, avenues of diplomacy and means of macroeconomic support for a sustainable global economy and society.

Beneath the layer of the United Nations, national governments and private enterprises have been identified as important agents in achieving sustainable transition. In his paper on corporate social responsibility, Banerjee (2008) discusses the nature of the role of corporations. He posits that despite their emancipatory rhetoric and messages of corporate citizenship, corporate social responsibility is primarily driven by narrow business interests that ultimately restrict the concerns of external stakeholders. His position aligns with the increasingly popular opinion that while corporations might be prolific instruments in organising the mechanisms of economic and indeed environmental transition and change, their primal nature of capital formation, profit-making and shareholder value appreciation means they cannot be left to their own devices as the world seeks to move its core economic and social systems in a more environmentally sustainable direction.

Porter and Kramer (2006) further extend the discussion of corporate participation in sustainability transition by defining four arguments widely adopted by sustainability proponents for corporate entities to engage in social responsibility. These four arguments include The Moral Appeal, The Principle of Sustainability, The License-to-Operate approach and the Reputation Argument (Porter & Kramer, 2006).

Beneath the multilateral organizations (like the UN and World Bank), national governments and corporate entities, there is the entrepreneur whose role in society straddles all levels of economic activity from small family-owned shops to medium enterprises to large multinational outfits operating in sectors from oil

and energy to technology to media. Entrepreneurs play a central role in all economies. By deploying their skills and initiative, entrepreneurs anticipate economic deficiencies and needs and bring new ideas to market (Hall & Wagner, 2012).

Given their ubiquitous presence in the economy, entrepreneurs have been explored as potential agents for sustainable development and transition. Johnson & Schaltegger (2020) describe the entrepreneurship context for sustainable development as a multilevel concept that brings together the social, environmental and economic dimensions of entrepreneurial processes, market transformations, and large-scale societal developments. These three dimensions are also the same dimensions through which much of the analysis on sustainability and the sustainable transition has been done. The presence of entrepreneurs in the social, environmental and economic parts of society makes them a critical agent for analysis in the sustainability transition process of any country. If the factors that affect entrepreneurs' adoption of sustainable practices can be better understood, then the agency of entrepreneurs in enabling faster and more effective sustainable transition will be better exploited.

1.1 Research Focus

The thesis seeks to assess the dynamics of the adoption of sustainability practices among entrepreneurs in a developing country context. The thesis focuses on Nigeria as the focal developing country. Given the differences in market conditions, customer perceptions and other country-specific realities, researching Nigerian entrepreneurs specifically is important as it sheds more light on one of the largest but least researched entrepreneur groups in the world in the context of their sustainability progress and the level of impact they could have if understood properly.

1.2 Context and Relevance of Research

As Africa's largest market and one of the 20 largest economies in the world, Nigeria represents an important focal country in assessing sustainability progress globally (World Population Review, 2024). Thinking through the three pillars of the Brundtland Report - Economic, Social and Environmental (Brundtland, G.H, 1987), Nigeria represents a social cluster of 200 million people (a population that is projected to grow to over 350 million in the next three decades), an energy production and consumption cluster that is ranked 20th and 38th in the world respectively (U.S. EIA, 2022) with its attendant environmental implications and an economic area that is ranked 4th in Africa and 42nd in the world (Galal, 2024). Nigeria holds an inherently consequential position in terms of the impact of its internal policies and decisions on the global sustainability transition, a symbolically important position in terms of its role as a region leader both in the ECOWAS sub-group and in the African Union as a whole, and a proxy position of relevance, as it serves as an important trade entrepot for many countries in the region.

Given the similarities in key economic indicators and social indices across the West African region, understanding how sustainability practices are adopted by entrepreneurs in Nigeria can give useful insights on how to create more effective sustainability transition mechanisms for entrepreneurs across the West Africa sub-region and other developing country contexts.

Nigeria's entrepreneurial landscape is also both diverse and dynamic. It features a mix of traditional businesses and innovative startups, spanning sectors from oil and energy to fintech, banking and agriculture. In Nigeria, several factors are driving the growth of entrepreneurship. One of the most important is the country's young demographic. With a median age of around 18 years, Nigeria is home to a large pool of young, tech-savvy talent. This demographic is driving

innovation and pushing the boundaries of what's possible in business. Another driver is entrepreneurship's role in job creation. High unemployment rates have led many to create their own opportunities through entrepreneurship resulting in a sharp rise in small businesses and startups, contributing to growth and new job creation (Spratt, 2024).

Both factors noted above make researching the relationship between sustainability practices and entrepreneurship in Nigeria a timely and important work. The kind of market opportunities these young entrepreneurs pursue and how they pursue these opportunities (sustainably or unsustainably) will significantly affect Nigeria's transition journey. This thesis therefore explores how government policy influences these entrepreneurs' decisions – both in terms of opportunities chosen and methods for fulfilling them.

1.3 Study Contribution

This thesis contributes to the existing works of researchers who have sought to explore entrepreneurship as one of the key areas in sustainability transition research. This thesis employs an organizational isomorphism framework to analyze the barriers and drivers Nigerian entrepreneurs face as they try to adopt sustainable practices. The analysis of the qualitative data gives insight into the nature of the institutional, competitive and sector-specific environment, and how these environments aid or hinder entrepreneurs from being effective agents of sustainability.

2 BACKGROUND AND THEORETICAL FRAMEWORK

This chapter covers the core ideas of the thesis including sustainability, transition governance, organizational dynamics and practices adoption among entrepreneurs. These concepts are assessed with the entrepreneur as the focal subject.

This thesis employs the definition of entrepreneurship put forward by Shane & Venkataraman (2000). They define the field of entrepreneurship as the study of “how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited”. The entrepreneur can therefore be perceived as the person who is at the centre of discovering, evaluating and exploiting market deficiencies and opportunities and transforming them into future goods and services.

Another fundamental proposition of Shane & Venkataraman (2000) is that entrepreneurship can include but not necessarily require, the creation of new organisations. They build this notion on the reality that entrepreneurship can also happen within standing organisations and entrepreneurial ventures and opportunities can be sold to other people or to existing companies.

Shane & Venkataraman (2000) rightly also define the entrepreneur as more than the characteristics that make certain individuals more inclined to start or run a business. They extend their conceptualisation of an entrepreneur to also include the situation in which the entrepreneur's work is done. According to the authors, given that a large and varied set of individuals engage in the ever-evolving field of entrepreneurship, it is not possible that entrepreneurship is explained solely by a characteristic of certain people independent of the situations in which they

find themselves. They thus surmise that when some people and not others engage in entrepreneurial behaviour, it is the manifestation of the tendency of certain people to respond to situational cues of opportunities rather than a stable characteristic that differentiates some people from others across all situations.

These “situational cues of opportunities” can include readily available market demand or opportunities to exploit comparative advantages like natural resources, and other legacy business models or easy-to-fulfil business processes regardless of their sustainable quality. The situations in which these cues of opportunities manifest themselves also often include the policy environment with the obtainable institutional dynamics. The entrepreneur is therefore both the person most likely to respond to situational opportunities and the person who best manages the situational dynamics within which these opportunities manifest themselves. It is in the context laid out above the core ideas of this thesis are assessed in the following sections.

2.1.1 Sustainability Transition

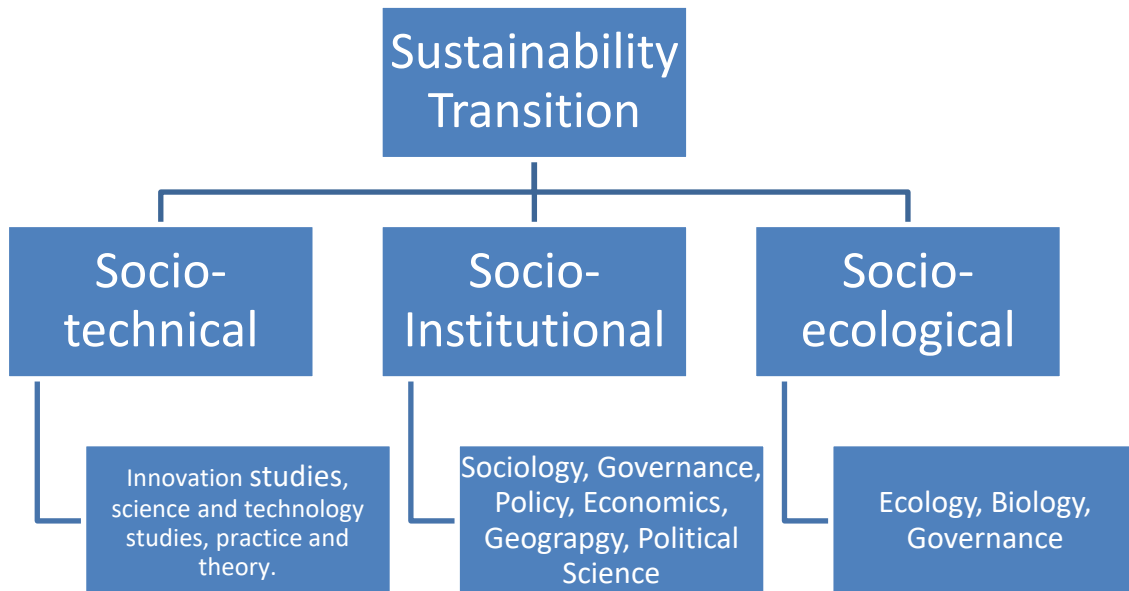
The term “transition” is often broadly employed in different areas of scientific research and refers to a nonlinear shift from one dynamic equilibrium to another (Loorbach et al., 2017). From disciplines such as ecology, demography (demographic transition), psychology (development transitions), and economics, the term captures the search for a new equilibrium where specific variables are optimized for using different techniques to achieve a new desired state of normal.

The term sustainability transition similarly is used to refer to large-scale societal changes, deemed necessary to solve big economic and environmental problems, especially with regard to achieving a new normal that preserves the quality of the natural environment while keeping economic output in a steady growth state. Many researchers have explored developing a proper definition of the

sustainability transition and some are captured below. According to Huttunen et al. (2022), sustainability transition refers to systemic changes needed in societies in response to the current global environmental crisis. They posit that research on sustainability transitions aims at understanding the dynamics of socio-technical systems change towards an eco-friendlier direction and how this change can be enabled. Their definition contains a focal term, “socio-technical” that is at the centre of the work of building cleaner economies. The “socio” part focuses on the human element - entrepreneurs, citizens, governments, consumers etc while the term “technical” focuses on the technology, infrastructure, tools and policy that aid the human part of the equation. Without a balancing of both transition is largely impossible.

Loorbach et al (2017) adopted a more accessible and long-term definition, defining sustainability transitions as “processes of long-term structural change towards more sustainable societal systems”. These include profound changes in ways of doing, thinking and organising, as well as in underlying institutions and values. They discuss three approaches to sustainable transition including The Socio-Technical, the Socio-institutional and the Socio-Ecological approach. Each approach discusses the technological, agency/political and environmental method to achieving this desired equilibrium shift to a more sustainable economy.

Figure 1. Loorbach et. al. (2017) Perspective on Sustainability Transitions (Disciplines).



What is however consistent in all three approaches is the “Socio” element which tracks the participation of entrepreneurs, communities, corporate stakeholders and the general human collective in the process.

Given that the focal dimension of this thesis is the impact of government policies on entrepreneurs and sustainability transition, the socio-institutional approach of Loorbach et. al. (2017) offers a pertinent perspective. The authors posit that this perspective is relevant to evaluating societal systems including transportation, energy and public services systems but increasingly also, systems such as finance, education and regulation. Systems that are central to the economy and where consumption patterns (sustainable or otherwise) can easily be locked in for long periods.

In Loorbach et. al.’s presentation of the socio-institutional approach, institutional dynamics (the interaction of different agents in a social or economic space) is used

significantly to explain stagnancy and inertia as well as to explore questions of agency, politics and power. All of these represent important institutional variables that all economic agents deal with - not least entrepreneurs. The authors synthesize a rich collection of existing literature on sustainability transition in their paper and ultimately emphasize that sustainability transitions are integrally political as they imply direct systemic change often only possible with the effective intervention of political institutions through policy.

Different governments around the world have tried to pursue sustainability transition in the modern era using several policy instruments (Bailey, 2024). These policy instruments are the result of a process known in the academic literature as transition governance (Loorbach et al., 2017). Governance in sustainability transitions has been at the heart of transitions research since the climate and environmental challenges came into the limelight. The main driver behind the emergence of transition governance research has been the search for new understandings and concepts to ascertain how to avoid unsustainability lock-in (for example resource exploitation-based economic value chains) and how to assemble and empower disruptive innovations and transformative capacity from the institutions, corporations and society toward new and greener sustainability equilibriums (Bailey, 2024; Rezaeian et al., 2024, Loorbach et al., 2017.)

2.1.2 Sustainability Transition – Resource Value Chains

The global economic landscape has evolved over the last century to assume the form of a cluster of many value-creation logics and processes (Lee & Tang, 2018). From manufacturing to energy, transportation, infrastructure, fashion and utilities, these single-train value-creation processes in the global economy have manifested in the form of a cycle of resource extraction, processing, product creation, waste disposal and profit maximisation (Markard et al., 2012; Salant, 1995). As depicted in Figure 2 below, this chain has created a situation of ever-

diminishing resources, ever-increasing waste left behind for disposal and negative environmental externalities including greenhouse gas emissions and the resultant planetary degradation.

Figure 2. Natural resource economy value chain – optimal scenarios in brackets (Lee & Tang, 2018; KGHM, 2024)

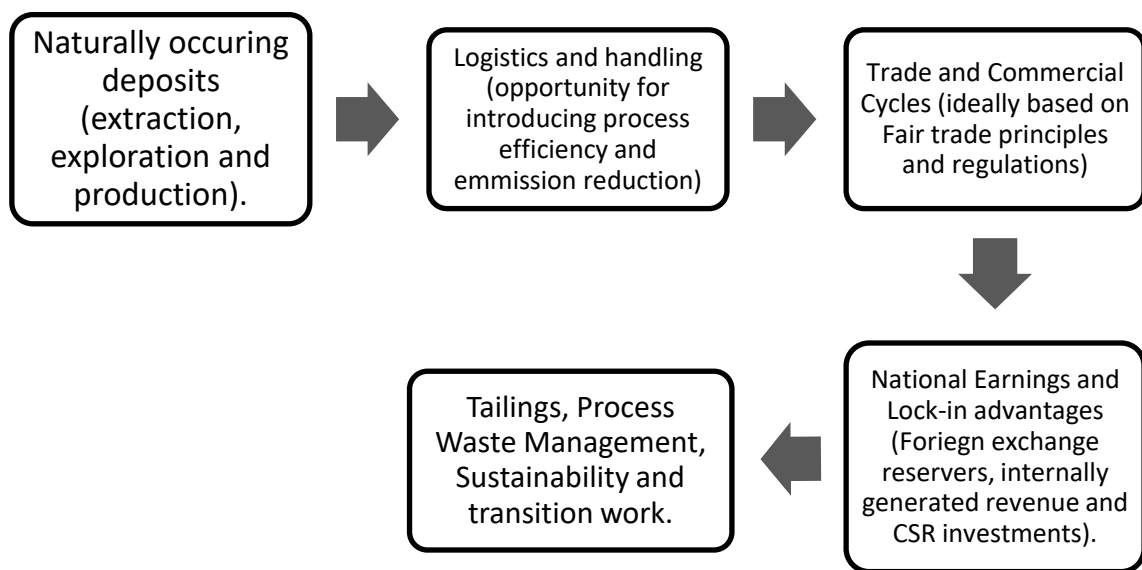


Figure 2. above captures the typical natural resource value chain. Usually transition and sustainability issues are handled at the end of the process when ideally, there should be a transition and sustainability component in every box (Lee & Tang, 2018). Lock-in usually happens long before transition and sustainability are discussed. Infrastructure, comparative advantage, physical capital, business systems and all the attendant sunk and capital costs components have been introduced by then.

These value-creation processes intertwine with more than just the technology and industrial systems required to execute them, they also integrate with the

institutions, regulatory frameworks, social systems, and even political and institutional structures (Granceri Bradaschia et al., 2024; Markard et al., 2012). Consequently, the present capitalist economic system as composed of value creation systems or value chains and their attendant effects both on the environment and all other stakeholders, present strong challenges that are coupled with and heightened by the strong path-dependencies and synergies obtainable in every sector. Many of the problems of these existing value-creation systems have been effectively categorized and documented by academic researchers and other institutions involved in exploring the relationship between the global economy and the environment.

The United Nations Environment Programme (UNEP) for example divided the environmental and social impact of resource extraction activities into two categories: Primary impacts and secondary impacts. Primary impacts occur in the immediate period and place of the resource extraction activities. These impacts include environmental and nature-defacing activities including site building, population movements, and changes in local ecologies and economies. Secondary impacts on the other account for deforestation, biodiversity alteration and loss, unnatural developments in the middle of established natural systems and social unrest resulting from changes in power and wealth structures (UNEP, 2024). Both categories carry their respective consequences and require tailored strategies for change and remedy.

Researchers at the European Environment Agency (EEA) have put out insights in the same line, accurately measuring the numerical magnitude of the current extractive models of our value chains. In its 2021 report on “Improving the Climate Impact of Raw Material Sourcing”, EEA scientists noted that raw material extraction and processing activities account for around 18 % of the total greenhouse gas (GHG) emissions associated with the EU's consumption of all goods and services (EEA, 2021) – this number stands at 50% globally with most

of these resources used as intermediary inputs in the existing value chains of different industrial economies. Interestingly, while the GHG emissions measured might be in the European Union, the overall footprint of the entire extraction process goes as far back as towns and communities in developing countries where other primary and secondary impacts have not been fully accounted for.

The International Resource Panel (IRP) also established a numerical estimation, stating that the extraction and processing of natural resources, ranging from energy carriers to minerals and food, is responsible for over 90 % of impacts associated with water stress and biodiversity loss (International Resource Panel, 2019). This externality related to water stress is especially significant in assessing extractive industries' impacts in developing countries in Africa where much of the water supply is still dependent on natural freshwater sources which are in short supply (Nkatha, 2024).

Liu et al., (2023) analyzed the environmental effects of resource exploitation in the world's largest developing country market - China. They sought to provide a more specific understanding of the overall impacts of natural resource exploration by examining the economic and environmental effects based on the level of development across regions. Using data from provinces across China, they found resource exploitation contributes to economic development that is often balanced out by corresponding environmental pollution. However, the magnitudes of the impacts are different for local governments at different development stages. In less privileged provinces, mineral resource exploitation was found to be more conducive to reviving economic development but led to more severe environmental pollution than in developed areas (Liu et al., 2023).

This intra-China insight also corresponds to the global resource and sustainability reality today. Underdeveloped and developing countries often rely on resource exploration for economic growth while allowing a higher tolerance

for the attendant negative environmental externalities. Sub-Saharan African countries especially Nigeria are caught up in this cycle. Relying on crude oil and other mineral resource extraction for 80% of its foreign exchange earnings which go on to finance the imports of critical manufacturing technology and development of local economic value chains (National Bureau of Statistics, 2022).

This reality of resource-driven value chains and their environmental impact appears consistent globally. Fu & Liu (2023) examined the influence of natural resource rents on global sustainable development. They found that natural resource rents (or royalties in the case of certain resources) boost the revenue purse of governments and significantly enhance economic growth. Specifically, rents from these natural resources encourage industrial expansion at national and regional levels and enhance global GDP growth - depending on the quality of institutions and institutional policy frameworks available at the time.

The dominant challenge however is that given the almost seamless logic of the resource extraction-based economic model, both in terms of providing much-needed resources for the national economy and important rents and revenues to help local governments develop local value chains, it is only natural for countries and entire regions to become calcified in this system (described as lock-in in institutional theory) despite the proven adverse effects on the environment (Aladejare, 2022; Scott, 2014).

Nations, after decades of running on this model soon find not just their value chains and industrial configurations, but also legal, policy and institutional environments tightly built around enabling and protecting the resource extraction model of economic participation and growth (Scott, 2014). This situation prompted the area of sustainability studies known as Adaptation Studies (Granceri Bradaschia et al., 2024; Muñoz-Mas et al., 2024; Rohrer & Rubio, 2024) Therefore, the complexity of sustainable transition as explored in this thesis

begins with the need to understand the nature of these economic value chains through the entrepreneurs who develop and operate in them and how their impact on the environment is distributed across different points of economic activity and mediated by the institutions with which they interact. (Rohrer & Rubio, 2024).

It is essential to understand that much of the friction of sustainability transition lies in developing new or innovating around existing value chains to become lighter in terms of their carbon emission component and environmental costs. As it is with most systems modifications, a significant portion of the challenge lies with the human factor. Governments whose entire policy frameworks and economic planning are built around resource rents and entrepreneurs whose investments, business models and life's work are locked in age-old resource-based industries are often locked in intense exchange seeking a new equilibrium point. This situational interaction is effectively captured by the concepts of institutional dynamics and institutional theory explained succinctly by Scott (2014) and DiMaggio and Powel (1983) in their seminal literature.

Scott (2014) relaying the ideas of Talcott Parsons, layers the concept of "cultural-institutional" dynamics on organizations. This concept is proven by studying the organization and its social and institutional environment and defining the relationship between both entities especially how the value system of an organization is legitimized by its connections to primary institutions in "different functional contexts". Scott (2014) relays that the broader regulating structures in societies serve not only to validate the existence of organizations but, more explicitly, to legitimize the main functional patterns of operation which are necessary to execute the organization's goals and business logics. He posits that schools, for example, gain legitimacy in society to the degree that their goals are connected to wider national values, like education and training for economic

growth, and to the degree that they structurally and procedurally conform to established “patterns of operation” specified for educational organizations.

This argument brings to the fore the dependent-independent relationship between organizations and the institutional environment. Organizations not only rely on institutional alignment at the value creation level, but also at the level of “how the value is created” whether goods or services. What activities, materials, and processes go into making the goods and services of organizations and how do these constituent elements affect the natural environment that the organizations share with its institutional partners and other socio-cultural stakeholders?

DiMaggio and Powell (1983) describe this reality in their discussion of organizational isomorphism. They describe isomorphism as a constraining process that conditions one unit in a population to attain a form similar or even identical to other units in the population that face a similar set of environmental conditions. They split isomorphism into two: competitive and institutional and proceed to affirm that organizations compete not only for customers and resources but also for institutional legitimacy, economic agility and political influence. Organizations seeking to acquire institutional alignment and legitimacy often have to adopt some level of isomorphism i.e. align their strategies, operational procedure and EPC (engineering, procurement and construction/manufacturing practices) to suit the set constraining conditions of the primary institutions and institutional environment.

2.1.3 Sustainability Transition - Mitigation and Adaptation

Sustainability in its full conceptualisation intersects several distinct but connected domains. These domains include the environment (global, regional and national), business operations carried out within these environments (including marine, land and air-based business activities), the supply chains that connect all these businesses and the stakeholders (people and entities) who live in these environments and interact with these businesses (European Environment Agency, 2024; Sohag et al., 2024).

One primary target of much of the work of sustainability is environmental preservation and renewal. Put differently, sustainability is a long-term goal for society to fulfil the needs of economic growth at its current pace while exerting the least amount of impact on the environment. This long-term goal is generally pursued along two paths environmental mitigation and environmental adaptation (Horn, 2024; Kim et al., 2024; Liepold et al., 2024; European Environment Agency, 2024). Each individual path creates specific economic and social advantages and challenges and displays a level of progress disparity in levels of implementation in the developed and developing world.

Environmental mitigation (also referred to as climate mitigation) focuses on managing the human activities that degrade the environment. This can take the form of reducing the flow of heat-trapping greenhouse gases into the atmosphere, reducing the concentration of carbon dioxide (CO₂) by improving sinks (e.g. increasing forests and vegetation areas), economic emissions management in the form of controlling released gases from sources such as power plants, factories, cars, and farms etc (UNFCCC, 2024; European Environment Agency, 2024; Horn, 2024; Kim et al., 2024).

The idea of mitigating revolves around modifying already existing systems and industries in order to reach less harmful emissions levels and improve the overall footprint of these systems and activities.

The United Nations Framework Convention on Climate Change (UNFCCC) otherwise known as the Convention manages the mitigation requirements of all Parties (The word 'Parties' generally refers to nations grouped in developed and developing countries), keeping in mind their responsibilities and abilities, to articulate and execute programmes containing procedures to mitigate climate change (UNFCCC, 2024; European Environment Agency, 2024).

These programmes, while designed in the public policy domain usually target economic activity (hence affecting entrepreneurs and business entities) with the objective of incentivizing actions, business models and strategies that are cleaner while also disincentivizing those that result in large amounts of GHG emissions (Hörisch, 2015; Iyke, 2024; Subhan et al., 2024). They include incentives and investment programmes, policies and other instruments which address all sectors, including energy generation and use, manufacturing, agriculture, transport, buildings, forestry, and waste management. Mitigation measures translate to, for example, increased use of renewable energy, adoption of innovations such as electric cars, or modifications in behaviours, such as choosing to drive less or changing components of one's diet (UNFCCC, 2024; Estacio et al., 2024; Kim et al., 2024).

Mitigation requires the agency of human actors. From engineers and innovators designing more energy-efficient and carbon-neutral technologies to entrepreneurs pursuing new green opportunities, or greener strategies to existing opportunities. Given the attendant human and capital cost of modifying existing technologies, industrial and business systems to reduce carbon emissions, developed countries have generally been able to implement mitigation procedures faster than developing nations. According to Kharas et al. (2023) of the Brookings Institution, "Developing countries will be the most severely affected by accelerating climate change and, even excluding China from the calculation, are likely to emit more than half the annual global total of

greenhouse gas (GHG) emissions as early as 2030. However, the international community has not focused sufficiently on the range of development, adaptation, and resilience priorities and constraints these countries face in tackling the world's interwoven emissions mitigation imperative". They further expound on the important disparities between these countries including significant fiscal flexibility and stability challenges in the most vulnerable small island nations, to the considerable concerns put forward by high-growth emerging economies fearing that embarking on an energy transition will hinder their overall economic growth and hard-won progress in confronting food security, social welfare, education, and other elements of sustainable development (Kharas et al., 2023).

The political economy of transition to a low-carbon economy can be daunting. Vested interests in carbon-based and fossil-fuel industries can be strong, including in Nigeria, the focal country of this thesis where the overwhelming majority of local investments, banking focus and entrepreneurial activity is in the oil and gas sector due to potential legacy industry development and potential for returns.

Adaptation or Climate Adaptation on the other hand refers to adjustments in social, biological, or economic systems in response to climatic stimuli, expected or actual and their outcomes (Granceri Bradaschia et al., 2024; Rohrer & Rubio, 2024). Adaptation describes the modifications in practices, structures and processes to control the potential damages or induce benefits from opportunities associated with climate change (Muñoz-Mas et al., 2024; UNFCCC, 2024) . In simple terms, countries and communities need to develop adaptation solutions and implement actions to respond to current and future climate change impacts (Horn, 2024; Muñoz-Mas et al., 2024; Wat et al., 2024; UNFCCC, 2024).

While environmental mitigation focuses on reducing emissions directly at the source (industrial, individual and commercial GHG footprint), adaptation focuses on preparing the broader society (its environmental configuration,

architecture/urban planning and business and commercial systems) to be climate-ready and resilient to adverse climate occurrences like storms, droughts, extreme air/water pollution situations, extreme weather events like tsunamis, typhoons and similar situations.

Adaptation actions can take many forms, depending on the unique context of the communities, businesses, organizations, countries, or regions in question. Adaptation can be implemented in multiple ways, from building flood defences, setting up early warning systems for cyclones, redesigning communication systems, switching to drought-resistant crops, and innovating existing business operations and government policies. A large number of countries and communities are already taking steps to develop resilient societies and economies.

Muñoz-Mas et al. (2024) discuss how Climate change is already affecting agriculture on the European continent and will continue or aggravate in the future, even under the most optimistic scenarios. This is also consistent with Ogunkan (2022) who discusses how the absence of strong governance in Nigeria is challenging the realization of sustainable development in Nigeria both in terms of resilient national systems and economic growth. The United Nations has set up units and workstreams relevant to progressing adaptation responses and enhancing societal and environmental resilience and has done this in multi-group country divisions (Ogunkan, 2022; UNFCCC,2024).

The multi-group country divisions range from least-developed countries to developed countries. The Least Developed Countries especially, have an Expert Group or LEG which was established in 2001 and is currently mandated to provide technical guidance and accelerate support to the LDCs on the process of formulating and implementing national adaptation plans (NAPs). These countries including Nigeria and many in the ECOWAS region have both significant barriers and advantages for developing climate adaptation

capabilities. For example, much of their urban areas (outside national capitals and often one major business district), have not been built and thus present the opportunity for climate adaptation and resilience from scratch rather than retrofitting after the fact (Isiani et al., 2024).

Secondly, given their relatively present exposure to climate stimuli, these countries can serve as a real-time lab for climate adaptation innovations and testing with access to performance data and the net utility of new technologies. The dominant challenge however remains in the area of financing adaptation and ensuring consistency in running programs as regimes and governments change hands.

2.1.4 Institutional Theory and Isomorphism Mechanisms

The central framework of the thesis is derived from the seminal work of DiMaggio & Powell (1983). In their paper, they sought to answer the important question of how entrepreneurs, businesses and organizations attain a point of homogeneity in organizational practices and processes; and how this convergence, attained from a starting point of significant diversity, is influenced by three specific mechanisms. The authors establish a cyclical and consistent pattern, stating that “organizations in a structured field, respond to an environment that consists of other organizations responding to their environment”. Effectively an evolving symbiosis exists between organizations and the environment in which they operate. A symbiosis in which while they may not directly control the form and substance of the environment (policy or competitive or normative environment) in the case of this thesis, they must respond appropriately to maintain legitimacy and unison with their market. DiMaggio & Powell (1983) termed the concept that most accurately describes this

homogenization process as isomorphism. Consistent with Scott (2014) and Friedland and Alford (1991).

DiMaggio & Powell (1983) through an analytical typology identify three mechanisms that enable institutional isomorphic change. Each mechanism has its own intrinsic qualifications and effective attributes. The authors listed them as: Coercive isomorphism which is borne out of political influence exerted on entrepreneurs, businesses and organizations and the problem of legitimacy (institution-heavy). Mimetic isomorphism develops from normal responses of entrepreneurs, businesses and other entities to uncertainty and Normative isomorphism, which is most associated with professionalization.

Table 1. Isomorphism and the Mechanisms of Institutional Isomorphic Change (DiMaggio & Powell, 1983).

Mechanism	Form	Relevance
Competitive Isomorphism		
	Assumes a structure of rationality that prioritizes market competition, niche adjustment, and fitness measures	Most relevant for those fields in which free and open competition exists
		Applies more effectively to explain the early adoption of innovation.
Institutional Isomorphism	<i>Coercive isomorphism.</i> Coercive Isphsm, Is the result of both formal and informal pressures applied to entrepreneurs and businesses by institutions & organizations on which they are dependent and by socio-cultural expectations of the	In many situations, important organizational change is a direct response to government mandates. e.g. manufacturers adopting better waste control technologies to conform to environmental regulations; nonprofits keeping transparent accounts,

	society within which they operate.	and businesses following anti-discriminatory practices.
	<p><i>Mimetic processes:</i> This form of isomorphism derives from uncertainty - a powerful force that encourages imitation. Poorly understood organizational technologies, ambiguous goals, or symbolic environmental uncertainty, often compel organizations to model themselves on other organizations.</p>	<p>Modelling is often an efficient response to uncertainty. The modelled business or entity need not be aware of the modelling or have a desire to be copied; it merely serves as a convenient source of practices that the borrowing organization uses to survive and innovate through unfamiliar terrain.</p>
	<p><i>Normative pressures.</i> Normative pressures stem mainly from professionalization. Professionalization is interpreted to be the joint work of members of an occupation to specify the conditions and methods of their work or industry in order to control the active methods of producers of value in that sector.</p>	<p>Organizations in the economic sector are often constrained to adopt standard requirements across operations and value development in order to maintain legitimacy and continual access to the market.</p>

In the context of this thesis, isomorphism serves as an excellent lens to understand how a diverse spectrum of entrepreneurs in society can be influenced by external factors to adopt a uniform position on sustainability and sustainable

transition – from the current set of practices, methods and business value they pursue, to a more ideal set of practices methods and business value that friendly to the environment and do not destroy the possibility of future generations doing the same. DiMaggio & Powell (1983) hypothesize that the greater the dependence of an organization on another institution, the more it will pursue conformity to that institution both in climate, behavioral substance and structure. Public institutions can exploit the reliance entrepreneurs have on them to develop a cache of policies and incentives that turn entrepreneurs into active agents in the transition journey towards a more sustainable reality.

If organizations intentionally pursue “sustainable isomorphism” through coercive, mimetic and normative mechanisms, then the stakeholder institutions around them can develop a strategically designed operative environment where entrepreneurs comply with regulations (coercive), model themselves after more sustainable organizations in order to enjoy institutional support and incentives (mimetic) and consistently pursue and maintain preset sustainability standards, in order to gain the legitimacy of their sector peers (normative).

This thesis explores the state of this possibility in the focal country – Nigeria. Using semi structured interview questions that have been developed to cover all three categories of isomorphism mechanisms, entrepreneurs operating in Nigeria’s institutional environment are engaged and their responses are used to evaluate the current level of effect Nigeria entrepreneurs have on the country’s sustainability transition journey.

Kostova & Roth (2024) also employ institutional theory to aid the understanding of the adoption and diffusion of practices among organizations. They put forward that a central tenet of the institutional perspective is that organizations that share the same environment will use similar practices and therefore become "isomorphic" with each other. In their paper, they focus on practices within large

multinational organizations but go through a few hypotheses similar to DiMaggio & Powell (1983) and Grant (1996). The authors suggest that the adoption of business practices comprises behavioural and attitudinal elements, corresponding to the implementation of the practice and the “internalized belief in the value of the practice”. They extend their thinking by discussing two contexts of practice adoption. The external or institutional context and the internal or relational context. These contexts align with DiMaggio and Powell’s (1983) model of external or coercive forces and internal forces which can be responses to both competition, uncertainty and sector-specific requirements.

The flexibility and usefulness of institutional theory in understanding how businesses adopt practices is exhaustively present in academic literature and thus has been employed here.

2.2 Entrepreneurship and Sustainability Transition

The study of entrepreneurship as a means for achieving sustainable development has created a multilevel discipline connecting the social, environmental and economic scopes of entrepreneurial processes, market transformations and society-wide developments (Johnson & Schaltegger, 2020). In the academic literature, many streams of research including in social, environmental and sustainable entrepreneurship, have determined that enterprising individuals and ventures are often the active agents who create, exploit or discover opportunities for sustainable technological and social innovations. These innovations result in institutional and market transformations. Johnson & Schaltegger (2020) stated that existing conceptual frameworks of entrepreneurship for sustainability have established, using a Schumpeterian lens that entrepreneurial processes can undo present market structures and consumption patterns, replacing them with more sustainable alternatives.

Hall & Wagner (2012) discussed entrepreneurship's efficacy in terms of the speed and attractiveness of transition by categorizing transition into radical and incremental innovation cycles. They suggest that radical innovation substantially improves existing technologies, while incremental innovation remains bounded by the existing technological trajectory. Building on the work of Hart and Milstein (1999) the authors relay that radical innovation is needed to transition away from the existing unsustainable business methods and value chains. They also highlight existing opposing views that caution that radical innovation for sustainable development is usually driven by society at large rather than just markets or entrepreneurs which makes these innovation processes risky but not necessarily financially rewarding.

Others in the research community have suggested that sustainability-improving innovation necessitates both radical and incremental innovations. The line of thought follows that, while the former can substantially improve the environmental quality of production processes and the finished products (leaving consumers with full benefits and utility). Incremental innovation on the other hand can improve the eco-efficiency of production processes through deeply entrenched institutional processes. (Hall & Wagner, 2012).

Baumol (1990) defines a relationship between policy environments and entrepreneurs by hypothesizing that while the total supply of entrepreneurs differs in different societies, the productive contribution of each society's entrepreneurs differs even more because of their distribution between productive actions such as innovation and unproductive activities such as rent seeking or crime. He states that this allocation is significantly influenced by the incentives or payoffs each society offers for such activities. This line of thought indicates that policy can influence the allocation and eventual output of entrepreneurship more effectively than it can influence its supply. It is therefore safe to infer that entrepreneurial productivity can be allocated towards a more

sustainable economy and sustainability transition if policy institutions in any focal society appropriate a fitting collection of incentives and payoffs to stir entrepreneurs accordingly. Baumol (1990) insists that it is the collection of regulations and not the stock of entrepreneurs or the substance of their objectives that changes over time and determines their effect on the economy via the allocation of resources. The significance of the entrepreneur for multi-sector and multi-objective impact is sure but constrained but the obtainable policy environment. He states that “if what is required is the adjustment of rules of the game to induce a more felicitous allocation of entrepreneurial resources, then the policymaker's task is less formidable, and it is certainly not hopeless.”

Meek et al. (2010) explore an area which has received less attention in the entrepreneurship-sustainability research ecosystem – which is the impact of institutions in influencing the path of entrepreneurship towards the creation of social wealth. The authors explore the lens of social norms in sustainable entrepreneurship research and the coordinating effect of public political institutions and social, private institutions in this regard. They describe social norms as accepted guidelines of behaviour within a social unit with the attendant desired behaviours and the associated penalties for not following these behaviours.

The authors posit that if social norms vary across entrepreneurs' units because of different value systems, and social norms are influential in individuals' appreciation of the natural environment, then social norms are likely to influence motivation and therefore, the likelihood, of entrepreneurship in the environmental and sustainability context. The authors further structure the perspective of norms by highlighting specific consequential norms that influence the actualization of sustainable entrepreneurship and sustainable transition. One of the highlighted consequential norms is Consumption norms. The authors posit

that societies with high levels of environmentally responsible consumption social norms will similarly have a large number of environmentally responsible entrepreneurs. They extend this hypothesis to account for incentives suggesting that State-level incentives will positively affect the number of environmentally responsible entrepreneurs in societies with higher levels of environmentally responsible consumption social norms. The authors however introduce a counter-intuitive but insightful perspective contrasting the characteristics of entrepreneurs and business owners to be disruptive and unique with the tendency of institutions to pursue conformity in a bid to for example achieve uniform sustainability practices and successful transition. They surmise that societies with higher levels of conformity to social norms concurrently have a lesser number of environmentally responsible entrepreneurs. Extending their position on the effect of state incentives, they account for a reduced outcome when conformity is heavily forced on entrepreneurs.

Minniti (2008) explored the relationship between entrepreneurship and economic growth. Her paper affirms recent studies showing that the contribution of entrepreneurial activities to employment and GDP across different national markets is increasing. Given the important social and economic implications of entrepreneurship, policy discussions have centred on the idea that governments seeking to stimulate their overall economies or specific dimensions of it should strategically manage constraints on entrepreneurship (Chell, 2007; Minniti, 2008)

Although Minniti's central argument closely aligns with Baumol (1990) on the effect of institutions and their policies in allocating entrepreneurial resources, her unique perspective rests on the idea that "one size does not fit all". She suggests that if entrepreneurial resources will be properly allotted to productive activities, policy strategies, concerning entrepreneurship, must be "tailored to the specific institutional context of each economic region". Minniti's simple yet insightful argument is that the institutional and policy environment needed to create an

end state of entrepreneurship, for example, sustainable entrepreneurship will differ in its constitution depending on what that end state is and the geographic location where this end state is to be developed. As such, policy design needs to take account of local differences and adapt different mixes and scales of existing resources, networks, and market capabilities.

Across multiple dimensions of analysis, the relationships between entrepreneurship and socio-economic reality and between institutions and entrepreneurship have been developed, affirmed and established. These valid relationships make the study of entrepreneurship as an effective marker for sustainability transition a valid pursuit. Entrepreneurship is the most potent and common organizing activity for financial, human and natural resources in any society (Baumol, 1990; Minniti, 2008). Given that many of today's environmental challenges result from the coordination and deployment of these resources, understanding the entrepreneur's decision-making process and possible influencing factors (institutional and otherwise) affecting these decisions could help shed light on the entrepreneur's place in the sustainability transition, whether positive, negative, or neutral. One final established linkage between the innovation and entrepreneurship literature is creative destruction. Several recent publications have drawn on this concept to argue that new sustainability challenges create several types of market failures, and consequently opportunities for new participants. They suggest that environmental degradation is in some way a product of market failures (absence of better technology, cleaner processes or proper incentives). This can create an environment for innovation with the right incentives as entrepreneurs notionally see opportunities in market failure. Entrepreneurship is therefore possibly a key driver for improving the environmental and social impacts following a rich body of research that suggests that entrepreneurship is a solution to market failures (DiMaggio & Powell, 1983; North and Thomas, 1970) and fixing negative externalities (Minniti, 2008).

3 DATA AND METHODOLOGY

To get the right insights required to properly explore the thesis topic and answer the research questions, the primary accounts of entrepreneurs in the focal country and their engagement with sustainability transition issues on a daily basis are explored. These lived experiences when properly documented and analyzed using a relevant theoretical framework can offer answers to the research questions of this thesis. To do this, semi-structured interviews have been selected as the means of gathering relevant data for this study.

3.1 Interviews as a Research Method

Arsel (2017) defines interviews in the context of research as an orchestrated dialogue designed for the purpose of extending knowledge by employing a “reflexive and pragmatic approach”. Put differently, In other words, interviews should instinctively and intentionally be built on an existing theory, questioning that theory, and seeking to extend or modify the core of that theory. Arksey & Knight (1999) conceptualize interviewing as not just a singular research method but a collection of approaches to research with only one thing in common among them – conversation between people in which one person has the role of researcher.

Arksey & Knight (1999) state that interview-based research is essentially a process of ‘systematic enquiry’, requiring significant skill in choosing the right subjects, taking a stance on some complex and important debates and executing productive exploration. A focused approach to interviews does not however simply have to be confirmatory and deductive in either direction of the

researcher's stance (Arsel, 2017), the interview itself should instead have a guiding purpose that seeks to progressively and persistently create new knowledge around an ever-evolving research question. Arsel (2017) captures interviews as a process of qualitative research under two categories – ethnographic and formal. The interviews conducted in the study fall under the category of formal. Ethnographic interviews are designed as in situ, short, and spontaneous conversations that happen in the constraints of a field site. Formal interviews, however, are generally prearranged and follow to different extents a predetermined guide.

3.2 Interview Structure and Guide

Given that qualitative research is more concerned with understanding and describing complexity and less with measuring numerics, Arksey & Knight (1999). Patton (2014) suggests that interviews constitute an effective way to collect data that researchers cannot observe in person including subjective elements such as thoughts, assigned values and cognitive preferences, meanings and emotions stemming from certain situations. Given its status as one of the most ubiquitous methods of qualitative data collection, interviews aid researchers in learning more about the experiences of individuals and their contextual interpretations of the study-specific topic (DiCicco & Crabtree, 2006).

Formal interviews fall into three different types namely unstructured, semi-structured, and structured. In practice, however, semi-structured is the most popular for researchers relying on qualitative data sourced for research participants (DiCicco & Crabtree, 2006; Arksey & Knight, 1999). Structured interviews assume a more tightly controlled nature with research participants required to answer a predetermined and pre-agreed set of questions and the interviewer sticks rigidly

to the script. Unstructured interviews follow a completely laissez-faire approach with the researcher having only a set of broad topics or themes on the guide or even none, and the participant usually setting the direction of the conversation (Arksey & Knight, 1999).

Semi-structured interviews, on the other hand, combine the best of both worlds. They involve the development of a directing interview guide but also leave enough room for the researcher to improvise, explore insights and meanings and uncover areas of interests (Arksey & Knight, 1999; Arsel, 2017). In terms of developing an excellent interview guide, Arsel (2017), differentiates between research questions and interview questions by stating that research questions are designed to map the relationships between concepts, while interview questions seek to understand subjective and simple formulations of these concepts. A good researcher must therefore carefully formulate interview questions that enrich the exploration of the research topic and help to build answers for the research questions.

3.3 Study Context

With a total population of over 210 million people, Nigeria currently stands as the largest economy in Africa, the largest emitter of GHG in the continent and the leading player in Africa's mission to meet the goals of the Paris Climate Agreement in this region. Nigeria's concern with climate change is complicated by the fact that her economy is dependent on fossil fuels while her internal energy consumption is. This reality makes it increasingly challenging for the country to decouple emissions from its economic growth trajectory without exploring other innovative avenues (Emezirinwune et al., 2024; Falebita & Koul, 2018; Yusuf, 2023).

In 2021, Nigeria submitted an updated version of its Nationally Determined Contributions (NDCs) as a follow-up to the ratification of the Paris Agreement in

March 2017, through this document, the nation pledged to an unconditional 20% emission reduction below business-as-usual by 2030, and a 47% emission reduction conditional upon international financial support, technology transfer and capacity building - three of which constitute the primary challenges highlighted by its leadership earlier (Foye, 2023; Ministry of Environment, 2024).

In addition, Nigeria pursued a climate governance approach by developing and approving a series of policy documents including the *National Climate Change Policy (NCCP) 2021-2030* and the *Nigeria Climate Change Act 2021*. Regardless of these milestones, numerous challenges in the energy sector have undermined the drive for carbon neutrality. Nigerian leadership at the Federal and regional government levels has brought to the fore the core difficulties that lie on the country's carbon transition pathway. They include the country's current reliance on fossil fuels for revenue and economic energy, the need for technical partnerships, greater access to international finance (especially for climate adaptation projects) and a lack of clear and consistent policy across government ministries and subregions.

Amid Nigeria's current transition journey and the constituent challenges, entrepreneurship remains a strong component of the national economy and strongly embedded in the socio-cultural life of the country. According to the National Bureau of Statistics (2017), MSMEs - which is significantly the largest category of entrepreneurs - contributed 49.78% to the national GDP in 2017. Recent data from the Bureau put the current number of entrepreneurial ventures (MSME category) at 41,543,028 in 2017. Education and Manufacturing make up the largest share of Small and Medium Enterprises, while Wholesale and Retail trade and Agriculture Make up the largest number of enterprises in the Micro Enterprises sector. In terms of total participation numbers, entrepreneurial activity in Nigeria contributed total employment number of 59,647,954 persons owners included, (equal to 86.3% of the national workforce).

In its recent National Survey of Micro Small & Medium Enterprises (MSMEs), the coordinating body for entrepreneurs in Nigeria, SMEDAN (Small and Medium Enterprises Development Agency of Nigeria) identified the three most unfavourable policy intervention areas that affected Nigerian SMEs, namely: High Fuel Price, High Taxes and Poor power supply/High Electricity Tariff.

Two of these three policy areas are high emission factors for businesses as entrepreneurs seeking alternative energy sources for their business operations can very quickly turn to heavy fuel oils such as automotive gasoline oil (AGO or diesel) and dual-purpose kerosene to power their power generators. It is the operating context in which the chosen entrepreneurs for the interviews provide their responses to the questions.

3.4 Data

To focus on the scope of interviews conducted for the study and therefore improve the quality of the qualitative data gathered, certain parameters have been set for qualifying the research participants. To qualify for the interviews for this study, participants must:

- Be an entrepreneur operating a micro, small or medium enterprise in Nigeria.
- Be above the age of 18 and have run their business for at least 3 years.
- Have a physical component to their business operations (measuring sustainability activities of fully online entrepreneurs is out of scope).
- Have a business with less than 20 employees.

A total of six participants were interviewed for the study across a variety of industries and years of experience. Their specific sustainability challenges and drivers and barriers mix also differed significantly.

Table 2. Overview of Research Participants

Participant	State of Residence	Years Active	Type of Business
Entrepreneur 1	Edo	3	Farming (Poultry)
Entrepreneur 2	Lagos	10	Print Media and IT
Entrepreneur 3	Delta	5	Food Processing
Entrepreneur 4	Delta	7	IT Services
Entrepreneur 5	Rivers	9	Oil and Energy
Entrepreneur 6	Rivers	10	Oil and Energy

The interview guide was developed to explore the daily experiences of the research participants in the context of handling sustainability issues. Using a semi-structured interview, the questions asked clustered insights around four themes which are derived from DiMaggio & Powell (1983) paper on Institutional Isomorphism and Collective Rationality in Organizational Fields. The framework develops an understanding of factors influencing entrepreneurs and businesses in different value chains to adopt similar organizational forms and practices. The framework gives a guiding scientific basis and structure to the analysis of the qualitative data gathered for the study. The three mechanisms put forward by DiMaggio & Powell (1983) are: *i) Coercive Isomorphism - Awareness and response to the institutional environment ii) Mimetic - awareness and response to uncertainty and the competitive environment iii) Normative - Sector-specific requirements and perception.* These mechanisms are the clustering themes of the analysis. Each of these themes breaks down into small themes which offer more specific insights into the positions of the entrepreneurs. The study interviews and resulting analysis, however, start by seeking an understanding of the *General awareness and attitudes towards sustainability* of the research participants.

4 RESULTS AND FINDINGS

The resulting insights from the interviews will be relayed across the three organizing factors or themes highlighted above, with resulting sub-themes from the interviews also discussed. The directed responses of the research participants will be introduced in the text and discussed in the context of relevant frameworks from the theoretical literature. The analysis however opens with a discussion of general awareness and attitudes.

4.1 General awareness and attitudes towards sustainability

Subtheme 1 - Attitudes

This section of the discussion focused on interviewees' attitudes towards sustainability and current steps taken towards sustainability transition. All the participants showed at least a basic grasp of the concepts of sustainability and sustainability transition. However, the attitudes towards sustainability differed significantly:

- "I perceive it as a luxury It's not something that comes first to the mind due to the harsh business environment, I'm currently in. So, you have to take a lot of things into consideration before you even think about sustainability. You have to look at surviving first. First, you have to survive as a business before you can think of sustainability, and you also need additional options. (Entrepreneur 1).

A similar sentiment was put forward by another interviewee:

- "Discussing sustainability in Nigeria is tricky, while I know what sustainability is and its benefits for our environment, the means to maintain a sustainability culture is not readily available. For example, my business produces a lot of electronic waste which should be recycled or disposed of properly, but we just throw them out along with other waste because there is no specific provision to sort them out and who knows

where it will all end up. So yeah, we are aware of sustainability, but the enabling environment is not really there.” (Entrepreneur 4)

While the interviewed entrepreneurs have a proper awareness of sustainability and the need to transition their business processes in a more sustainable direction, the barrier of lacking infrastructure and a challenging business environment moderate their attitudes towards a more effective sustainability transition. There appeared to be sector-specific differences in general attitude towards sustainability. Entrepreneur 2, whose business involved mostly digital services displayed a more positive attitude to sustainability transition.

- Yeah, since we mostly have to do with digital business. Ours is unlike other business for example industrial-based that has to do with a lot of carbon emissions or gases. We do use a lot of technology hardware and there's also some requirement for extreme power consumption. There is also a cost factor that we always consider when it comes to production because when we print the designs it takes a lot of Energy to print. We try as much as we can to use only energy-efficient machines and low-emitting channels to deliver our final product to customers. (Entrepreneur 2)
- Sustainability is well, a little more than a byword in our line of business. While we know of it and it comes up at conferences and industry meetings, there is no real impulse to pursue sustainability in my daily operations or as part of my business strategy. Since I sell compressed petroleum gas (CPG) I consider myself a sustainable entrepreneur as CPG is a better alternative to older cooking fuels which burn with black smoke and soot. (Entrepreneur 6).

The disparity in attitudes may indicate the absence of isomorphism among the participating entrepreneurs.

Sub-theme 2 - Steps Taken Towards Sustainability

There was a general openness towards sustainable actions. Some interviewees however were hindered by barriers while others could still act.

- Yes, we have acted to be more sustainable, and it has reduced my costs because a large part of this cost comes from running fossil fuel for power. Well, for your generators in this case you need to be able to run your

generator so that you can have your chicks or your chickens at optimal temperatures at specific times. So, with all of these, yeah, because and again the driving force was not really sustainability. It was managing costs. Because if you look at the news over the last one year, the cost of energy has sort of like tripled. Quadrupled. In this case, it's crazy. So instead of looking at that, you now have to look at alternatives like solar energy. And again, it's not coming from sustainability - it's just about surviving. (Entrepreneur 1).

This response was reaffirmed by another of the interviewee.

- Since I'm involved in food processing, I have taken time to transition my packing to eco-friendly packaging. So, I've done that. What I've not been able to do is proper waste management. Not because I don't have the mind to but because when we try to recycle, the companies don't come for them. Not because they don't want to but because they are overwhelmed by the population. So, I end up bearing the cost of eco-friendly packages, old separate rubbers and training for my staff to follow the new eco-friendly practices. So, I have just gotten to adopting some solar energy and transitioning my packaging to eco-friendly materials. That's as much as I can afford. (Entrepreneur 3).

As stated above, the difference in sectors often meant different strategies for pursuing a positive attitude towards sustainability even with similar barriers.

- Ok so there have been some steps that over the years we've taken, and they have really helped us a great deal. For example, for any equipment we want to purchase, we are very conscious of the power rating. We want to use the lowest power-rating equipment. We do this so that we can adapt our workflows to the energy sources available to us. We also partnered with an NGO for some time on proper e-waste disposal. So yeah.... The culture is there, and we try to keep up with the culture but who knows.... so yeah, we do the little we can (Entrepreneur 4).

Subtheme 3 - Desired Drivers

Questions in this theme sought to assess early on what ideal drivers would influence entrepreneur sustainability attitudes and help them adopt more sustainable practices in their different business value chains.

- Ideally you want to share costs on things like sustainability with public agencies. This whole thing is not a central part of our business so if we can

share the cost of doing it, that would be encouraging. You also want to see clarity and consistency in how this thing is pursued. Whether among us business leaders or as how the government enforces it. If it is hot and cold, we will lose interest (Entrepreneur 6).

- The best I can think of now is support to convert my alternative power source of power from diesel to CNG because it's friendlier to the environment. The central power grid does not supply sufficient power to keep our systems going. I would have loved an enabling environment where entrepreneurs could get assistance with securing consistent clean energy. Our biggest limiting factor is power for our devices and that is where the biggest difference can be made. I wish there could be a more enabling environment to secure clean energy (Entrepreneur 4).

This line of discussion brings to the fore some of the areas where the interviewed entrepreneurs would willingly unify into sustainable practices if there was a coordinating intervention at the institutional level.

- I would like to be sustainable. I don't have any specific thing in mind now for I haven't thought about it in depth, but I would really like to have the business environmentally sustainable. I mean, I spent the entirety of 2017 in a dense forest in southeastern Nigeria and to say I love the environment is an understatement. But I cannot afford to now simply because the external economic environment is not conducive to that. The only way I would be able to think about it or try and do is if there is an environment that actually supports business. I need the government to be on my side as a businessman. I should not have to provide everything I need for a business. Water, electricity. I'm setting up all of these things myself and then still be expected to think about the environment. (Entrepreneur 5)
- I would love to depend on reliable clean energy but the central grid is unreliable, and solar panels are an expensive investment so I rely on fuel generators. If I'm able to say through, subsidies go fully solar, I don't think I will have use for generators anymore. Another thing too, I would like to get certified for eco-friendly standards so I can access international markets, but these certifications are expensive. So, support in these two areas would be excellent drivers.

There is significant awareness and a positive attitude towards sustainability transition in the entrepreneurial landscape. While there are clustering challenges that appear across the responses of all the entrepreneurs despite differences in business sectors, these clustering challenges present opportunities for

harmonizing sustainability practices. If institutional interventions are designed to tackle these clustering challenges, they can lead to harmonizing sustainability practices among entrepreneurs. These clustering challenges are highlighted later but for now, we look at insights from the interviews across the three dimensions of the study framework paper: coercive, mimetic and normative mechanisms.

4.2 Coercive - Response to the institutional environment

Subtheme 1 - Existing Policy and Regulatory Environment

The discussion in this section explored the participating entrepreneurs' awareness of policy and institutional environment and their effect on entrepreneurs' sustainability choices. Insights on how entrepreneurs respond and adapt also surface.

- To be honest I'm not really exposed to government measures in putting out these policies, but I have to a limited extent seen how much the government has encouraged small business owners to take more alternative measures in generating energy, securing bio-friendly input materials and transportation. Because of the state of the economy fuel is even expensive. Not to my knowledge or understanding have I seen the government actively take part in or invest in policy implementation. So, it might be there but maybe not pursued enough (Entrepreneur 2).
- I wouldn't know if governments are actually putting policies for sustainability in place. Maybe they are putting it actually, but we are not seeing the effect of such policies. If we look at the area of transportation, I will say yeah there are a few policies, but I don't know if they will hold weight. The biggest one is helping citizens convert vehicles from petrol to CNG. They are trying to make the process that costs around a thousand dollars free. They've also tried to implement carbon taxes and remove subsidies from fossil fuels. It ultimately depends on whether they can hold through those policies. Personally, I don't think the government is pressing enough to make them work. (Entrepreneur 4).

Unlike in general knowledge and attitudes, the interviewees appeared less aware of government policies and regulations in terms of sustainability and generally

had less positive attitudes towards it. Entrepreneur 3 was the exception. Similar to the awareness section, this difference seemed to be business sector specific (Food processors must follow specific policy requirements).

- There are quite a number of policies, but I will speak on the one that concerns me the most. We have the National Environmental Standard and Regulation Enforcement Agency (NESREA) and the ISO14001 certification for environmental management (systems especially for food). These two policy elements are important and control decisions in my line of business. (Entrepreneur 3).

At the national level, the existing policy and regulatory environment appeared generally unclear and unsubstantiated to the entrepreneurs. There appeared a combination of lack of knowledge or concern. Coercive mechanisms thus seemed less effective in influencing the interviewed entrepreneurs.

Subtheme 2 – State and City-Level Sustainability Policies

- In my location currently there are no city-level policies on sustainability that I know of but in some other locations I believe there are environmental policy projects going on. (Entrepreneur 4).
- I live in Delta State and here we have the Waste Management Board that handles general waste management. Beyond that, I cannot think of any city-level policies (Entrepreneur 3).
- The city mostly handles general waste management and maybe some awareness campaigns but no really impactful programs (Entrepreneur 6).
- The Lagos State government has invested a lot in solar energy and has also encouraged people to use solar to power their small businesses as best as they can. I think that's the one thing I can think of. I can't quote the policy, but it's the only one that comes to mind (Entrepreneur 2).

There seem to be little to no policies at the subnational level (state and city) to influence entrepreneurs' practices. This removes the net influence of coercive or

institutional mechanisms of sustainable practices adopted from the direct operating vicinity of the entrepreneur and might diminish the will to transition.

Subtheme 3 – Effect of Institutional Environment on Business

DiMaggio & Powell (1983) describes the Coercive mechanism as resulting from both formal and informal pressures put on organizations by institutions on which they depend and by the expectations of the society in which these organizations function. These pressures could be in the form of force or persuasion. For example, an entrepreneur or organization may implement changes as a direct response to mandated government regulations as is the case when companies adopt new pollution control practices to conform to environmental regulations or other forms of changes. This line of discussion explores the effects of institution's policies, and the institutional environment have on business.

- The primary effect is in the area of cost. The Waste Management Board for example have a monthly fee, it is not pay-as-you-go. It's a fixed cost but at the end of the day, I feel like I pay for full service but get rendered half service. The costs of the policies that affect us as food processors are there so that's an effect, but the quality of services is still questionable. (Entrepreneur 3).
- As commercial energy traders, our value chain is inherently fossil-based so there is almost no direct regulation on us. The government understands the nature of the business and its importance to the economy, So nobody asks us to do anything sustainable. We are an oil economy and we're still opening refineries till date so there are no real policies and for me, no effect on my business (Entrepreneur 5).
- These policies mostly have a neutral effect on my business decisions. I run an IT Services business so in that sense we are not too regulated (Entrepreneur 4).

- What the government has done is to offer us incentives on sunk costs in terms of being more sustainable. For example, with solar, this helps with the cost of installation. Their platforms and channels that they have created also. Some energy companies, if they receive short-term support from the government, they reduce their price. Now I haven't implemented full solar because most of my machines are really energy and solar can't do it all. Other than this, it hasn't directly affected me in any other direct area (Entrepreneur 2).

While the value chains and specific key activities of each business differed significantly. Clustering factors such as cost, and institutional proactiveness (provision of infrastructure, responsiveness of public agencies) quickly show up where there is an institutional effect on the entrepreneur. The clustering factors represent the dominant barriers and drivers.

Subtheme 4 - Desired Institutional Policies and Interventions

As in the flow of data gathering for the Attitudes section of the study, we now assess the desired policy environment of the entrepreneurs interviewed.

- For us, it's power and transportation. That is it. Power, transportation. If I could get materials from point A to point B and it's cheap and possibly sustainable, it would be great. The cost of running a business like this is a lot of power and If those incentives directly affect my business I will see more profits from it. Ultimately every measure that we take, in terms of our personal policies, are to allow us to optimize our business to see maximum profit by consuming less power and then also getting our products from point A to B cheaper. For us this kind of reality, It's going to help better (Entrepreneur 2).
- If the government can create an enabling environment and infrastructure to enable for example recycling e-waste and also if government can give us stable power from the grid that will reduce our consumption of fossil fuel for alternative generators, I think that will be a very good starting point for us (Entrepreneur 4).
- Ultimately, once this PMS (motor spirit) to CNG (motor gas) policy directive becomes more widespread, we will happily convert our business vehicles to gas. It is so much cheaper and will be a good scenario for us. Also, if there is institutional support for us to uptake and distribute more

gas at subsidized costs as alternative fuel, we will happily do that (Entrepreneur 6).

- The major driver for me would be the government's willingness to support business. We don't even want you to look at sustainability, we just want you to support business. Give us support for businesses and you will see environmentally friendly solutions coming up (Entrepreneur 1).

In almost all of the insights provided, increased institutional support in the form of government intervention to make factors like cost and infrastructure easier to manage were the most dominant. Entrepreneur 1 provided a unique perspective however, stating that sustainable transition can be driven by open market innovation, especially in a market environment where certain fundamentals for business success are provided.

4.3 Mimetic - Response to Uncertainty & Competitive Environment

DiMaggio & Powell (1983) not all unification of practices by organizations, however, comes from coercive authority. Uncertainty plays an important role in encouraging imitation. When technologies are inadequately understood or business goals are ambiguous, or when the competitive or general business environment creates symbolic uncertainty, entrepreneurs and the organizations they lead may mold themselves and their business practices on other organizations. The discussions in this dimension explore the participants' competitive environment and its impact on the adoption of sustainability practices.

Subtheme - 1 Awareness and Response to Competitors' Sustainability Practices

- Not in my space per se. But there is an environmental protection board in the city that was going around checking for businesses using heavy fuel generators and imposing special premiums on them. Interestingly, however, this clampdown did not affect some hotels. When I asked around, I discovered that these people bribed the agency's officials to

bypass the fine and this makes the entire competitive environment distorted in terms of sustainability. My thoughts on it is I don't know if competitors can influence each other if they can just bypass the sustainability roadblocks set for them (Entrepreneur 4).

- Having a sustainable policy is not just about cutting costs it's about also saving the environment and the top of my head there aren't a lot of people in my industry who think of this because it's not directly impactful. The influence in the competitive environment isn't substantial because most of what we do is with our computers when it's time for printing we print and we go to deliver so from conception to production. Most of my competition don't think that they have the responsibility. So, I really can't pinpoint where my competitors have taken the initiative (Entrepreneur 2).
- There are some of my acquaintances in the business who are already exploring CNG conversions. They want to switch energy costs to gas. If it works for them, we will try it. We are part of multiple commercial unions and if one or two big players go in a direction that creates an advantage, of course, everyone will change gears too. So, there has been some influence but in terms of sustainability transition, we are still observing to see what works (Entrepreneur 6).

Entrepreneur 1 provides a trans-sectional perspective below by linking institutional and competitive environments. The absence of the influence of institutional mechanisms on entrepreneurs' abilities to adopt sustainable practices makes the competitive environment a more corporative one, where entrepreneurs in the sector come together to pool ideas to survive and attain some level of sustainability.

- As much as I can remember, nothing much from my competitors' side. Because competitors, I can't even say they are competitors because we're all just trying to survive in this business, all trying to survive and at some point, in time, we even share resources and like, OK, how do we go about this? How do we need to get this? Because it's crazy. The policy indecisiveness and the government's unwillingness to actually help businesses are affecting all of us (Entrepreneur 1).
- Yeah, I see what they do. For now, they mostly focus on adopting some components of solar energy to supplement the unreliable national grid, transitioning to eco-friendly materials, especially packaging, and tracking

and reducing overall waste from their processes. From interacting with a couple, I realized we are still all limited by costs (Entrepreneur 3).

Subtheme 2 – Managing Uncertainty through Imitation

This line of discussion tries to understand how competitors' activities in sustainable transitions influence the participating entrepreneurs to act in the direction of sustainable transition.

- When you see your competitors adopt these practices and do well, it actually challenges you to do better. I started out worried about matching costs with outcomes too. But now I realize that it even also helps with how our customers and partners perceive us. When we interacted with customers, we actually realized that they had seen what our competitors were doing in terms of sustainability and proper waste management and were looking for us to do the same, so we were already playing catch up. So now we're constantly watching and making the changes we can afford (Entrepreneur 3).
- The maintenance cost of many of the sustainable solutions we have seen around are way cheaper than what we use now. Solar panels, for example, don't need a mechanic for that as we do for our fuel generators. We've seen adjacent businesses make moves, but the dissuading factor is the cost of transitioning. The biggest uncertainty is matching the sunk costs of transition with benefits. So, we're watching but sticking to using electrical specifications to reduce power consumption (Entrepreneur 4).

The influence of managing uncertainty through mimetic action is present but varies with the digital-based businesses expressing the least pressure from the mimetic dimension and feeling the least uncertainty.

- There's not a lot of need to copy any specific competitor or confusion for now. We know where we aim to start, which is CNG conversion. Then maybe more efficient handling of the products we carry to reduce waste and spills. And then we go from there (Entrepreneur 6).
- For me, it's survival and profits. If anyone in our business finds a magic wand that is sustainable and profitable we will wave it immediately. So, we're more collaborating and the market is good so even when we work together, we still move stock out. Our way to manage uncertainty is to share ideas and for now, we're doing so and surviving (Entrepreneur 1).

4.4 Normative - Response to Sector-Specific Environment

This final line of discussion explores the requirements of sustainability practices placed on entrepreneurs by the sector-specific regulator (if any exists). It explores at a level lower than the national and regional (state or city) provisions and goes into the organizing or “professionalizing” bodies that control the specific business or trade the entrepreneur is involved in. This level is necessary as it assesses steps towards sustainability practices adoption for entrepreneurs by other practitioners who also understand the drivers and barriers of the entrepreneur.

Subtheme 1 - Sector-wide sustainability requirements

- I'm not sure I'm aware of that. If we have any coordinating body? 'cause my industry is a lot less regulated by the government? So it's not a line of business with heavy central regulation. There is the National Information Technology Development Agency but they mostly focus on development projects and less so on controlling what individual businesses do. There aren't a lot of policies that directly affect us in my digital space (Entrepreneur 2).
- We have a lot of regulators in the sector. There is the Nigerian Midstream and Downstream Petroleum Regulatory Authority, the Ministry of Environment and others like the Petroleum Marketer Organization. All of these are mostly business-focused regulators and do very little in terms of sustainability issues. We're really not there yet in Nigeria (Entrepreneur 6)
- There's really no central regulator in our sector. Besides the Ministry of Agriculture in the national capital. We mostly just have a corporative and its primary goal is to harmonize ideas, rules and best practices for staying in business and staying profitable (Entrepreneur 1).

There appeared to be a low level of impact in the normative dimension. From the study participants' responses, there was no real presence of coordinating organisations in terms of setting and pursuing entrepreneurs' sustainability practices requirements. As shown below in Entrepreneur 3's response sector

specific differences also exist in terms of the regulatory body's presence and enforcement pressure.

- When you work in food processing, some requirements are fixed and required of you to follow. For example, food safety standards, waste management standards, and packaging standards (especially with plastic and the possibility of heating before consumption). All of these have sustainability dimensions. The bodies that regulate us are I believe, NAFDAC (National Agency for Food and Drug Administration and Control) and SON (Standard Organization of Nigeria) The first one has more force for enforcing requirements because they also oversee drug makers and other consumables. Altogether it is not a heavily regulated environment (Entrepreneur 3).

Subtheme 2 Sector Specific Market Perception.

This final subtheme explores the pull effect of customers' perception on entrepreneurs' willingness to adopt sustainable practices. The single question asked focused on entrepreneurs' judgement of the premium placed by their customers on the level of sustainability in the process through which the business value proposition is created.

- Customers are getting more aware. Especially if you do simple things like recycle or use organic ingredients as an input material. The younger customers especially. Most of them now check the contents of the product from the packaging. They want to know what's going into their body and how it's made. So, we now value the perception (Entrepreneur 3).
- Yes, Like I said I think it improves our brand values to include sustainability as part of our overall brand values. We have also taken the initiative of sending out digital materials and writing blog articles regarding this topic on our online platforms. At least making more and more people aware and all that. Sustainability helps the environment, not just saving costs on business, but. If they can be part of the solution and also be responsible. Yep, so (Entrepreneur 2).

There was significant appreciation and consideration of the perception of customers on sustainability practices by most of the study participants. Sector-

specific differences arise as the entrepreneurs in Oil and Energy below show little to no pull effect on customer perception. This may be due to the demand inelasticity of the product they sell. The need for energy seems to exceed to willingness to examine the process of its production and sale.

- We don't have that issue. I don't think. It's a utility product. People want the product for essential activities. So, we never have that question (Entrepreneur 5).
- Nobody cares, because, I mean, everybody's thinking about a lot of things. Nobody really cares about sustainability, but they would care if it makes the product cheaper. Yes. Well, well, I mean, even if you slap on the product a label of "Sustainable we used, 50% fewer yields of gas", nobody gives a **** actually. Our customers are more price-sensitive (Entrepreneur 1).

Again clustering factors like cost and ease of practice adoption emerged repeatedly in the entrepreneurs' responses. The discussion and conclusion section will address the clustering factors.

5 DISCUSSION

The study assessed the relationship between entrepreneurs and sustainability transition in Nigeria, focusing on the adoption of sustainability practices. Using semi-structured interviews, qualitative data was gathered to aid the understanding of entrepreneurs' daily experiences and the barriers and drivers that affect their ability to adopt more sustainable practices as part of their business process. Several factors were repeated across all entrepreneur's responses and were identified as factors that could be the most consequential drivers of sustainability practices adoption if they are incentivized. Some barriers were also identified that could be turned in opportunities for impact if they are resolved.

5.1 Identified Barriers

These are the primary factors that the interviewed entrepreneurs repeatedly identified as factors that could enable them to adopt sustainable practices more rapidly and consistently.

5.1.1 Institutional Intervention

All the entrepreneurs interviewed pointed out that unclear and non-specific policies, lack of necessary infrastructure and weak regulatory enforcement made it almost impossible for them to pursue the adoption of sustainable practices, at the rate they would have preferred. This is consistent with DiMaggio & Powell (1983) who posit that Coercive isomorphism (the unification of practices due to public regulations) is the result of formal and informal pressures exerted on organizations by the institutions on which they depend. This suggests that in the absence of active institutional participation by the public entities concerned with

sustainability issues, a key dimension is missing and thus the next speed and effectiveness of the transition mission is weakened. The entrepreneurs discussed multiple dimensions of weak institutional intervention, including the absence of cost-sharing programs to aid the adoption of often costly eco-friendly materials and processes, the absence of a stable supply of key resources like power and energy which will discourage the use of heavy fuel generators as alternatives, and the absence of clearly defined and required sustainability standards.

5.1.2 Cost

Another recurrent barrier identified in the research data was the cost of transitioning or adopting sustainability practices. All entrepreneurs interviewed identified capital expenditure or sunk costs as a primary barrier. Although there were sector-specific differences. Some entrepreneurs had a more significant cost factor if they chose to adopt more sustainable practices. Entrepreneur 3, in food processing, had the highest cost burden, while Entrepreneur 4 in IT services had the least. It was however consistent from their responses that without some form of subsidy or credit purchase system, the willingness to sink in the capital in more sustainable materials, energy or processes will be firmly limited by the limits of the entrepreneurs' financial capacities. Costs as a barrier straddle both the coercive and mimetic dimensions of organizational isomorphism. The absence of public institution participation in entry cost sharing often makes the financial barriers to entry higher for entrepreneurs as they seek to adopt more sustainable practices. The need to stay competitive and align with the competitive environment also moderated the willingness of entrepreneurs to adopt certain practices. If there was no obvious competitive advantage then the investment was not made.

5.1.3 Market Conditions

The interview responses provided another insight into the primary barriers the entrepreneurs faced in adopting sustainability practices. Market factors like price sensitivity and customer perception were important to the entrepreneurs in gauging the need to adjust processes in a more sustainable direction. Entrepreneurs 1, 5, and 6 stated that there was no advantage gotten from adopting more sustainable practices in terms of how their customers perceived them. Given the utilitarian nature of their products (energy and food), they stated that the customers' needs for these essentials far outweigh their care for how sustainably they were sourced or produced. Entrepreneur 1 stated that price sensitivity meant sustainability was often sacrificed for affordability. Entrepreneur 3 was the only exception stating that there was some level of concern by customers about the materials involved in the production processes especially as these were consumables. Entrepreneurs 2 and 4 were largely neutral. The market conditions dimension aligns with the mimetic isomorphism force introduced in this study's framework by DiMaggio & Powell (1983) they posit that new organizations are often designed to replicate existing ones throughout an economy, and entrepreneurs or business managers actively seek functioning models that align with market realities upon which to build. The authors emphasize that to cope with uncertainty entrepreneurs and the organizations they lead will do what others in their line of business are doing including tailoring the value proposition, price structure and practices to suit the common market realities.

5.2 Identified Drivers

There were factors from the qualitative data that constituted drivers that aided entrepreneurs in more readily adopting sustainability practices. These drivers were consistently mentioned by all or most of the entrepreneurs interviewed, even though there were sector-specific differences.

5.2.1 Reliability and Efficiency

Besides entrepreneurs 5 and 6, all others interviewed referred to solar energy as their first step towards being more sustainable. Given the unreliable nature of power in the country, gasoline or heavy fuels-based generators are the primary alternatives to having reliable energy to run their business. The interviewed entrepreneurs however mentioned their preference for solar energy as it was cheaper to run daily even though the purchase costs are significant. Given the need of maintenance and consistent purchase of fossil fuels to power these alternative generators, 4 of the 6 study subjects had adopted solar energy to different degrees and indicated a willingness to do more.

5.2.2 Awareness and Social Responsibility

All the entrepreneurs interviewed indicated a positive attitude towards sustainability. This is well captured in the first section of the research results and findings chapter. While not necessarily quantifiable, all the entrepreneurs indicated a willingness to make changes and adopt more sustainable practices at the pace of their financial capabilities. Also, depending on the level of public institution support and in response to the competitive environment. This driver carries significance as cognitive alignment is a critical factor in the spread of organizational practices as identified by Kostova & Roth (2024). For practices to spread, the subjects who need to implement these practices must align

cognitively and normatively with the practices otherwise adoption might end up being mostly ceremonial or forced.

5.3 Limitations of the Study

The study only assessed the situation of entrepreneurs in the Southern part of Nigeria. Given the size and scale of the study, there may be other unique drivers and barriers native to the Northern part of the country. This is a valid limitation, as the predominant businesses in the northern part of the country (livestock and mining for example) have sector-specific differences from businesses in the Southern region.

Another limitation is the scale of the research study. Given the large population of Nigeria (220 million), a much larger sample size will be required to obtain more microscopic insights into the full nature of the adoption of sustainable practices by entrepreneurs in Nigeria.

5.4 Suggestions for Future Research

In the future, sector-specific drivers and barriers could be studied to get a deeper understanding of how to better enable entrepreneurs in specific sectors to adopt more sustainable practices. These sector-specific insights could enable entrepreneurs to use economies of scale to attain significant collective transition gains at lower costs.

Research could also be done to understand the intricate dynamics of specific barriers and drivers. For example, why do specific institutional interventions fail? Or what cost-sharing models could be more effective for a price-sensitive market like Nigeria in order to enable a lower barrier to entry?

5.5 Implication and Recommendations

The study highlights the first-hand experiences of entrepreneurs in Nigeria, in the context of the adoption of sustainable practices. The ultimate aim is to enable an understanding of Nigeria's transition journey, and the role entrepreneurs are playing and could play in enabling it. The study has identified barriers and drivers that constitute opportunity areas for governments seeking to create a more suitable environment for transition. If these barriers are eradicated and the drivers exploited, Nigeria's transition journey could be made more effective with entrepreneurs playing a significant role. As a country with the sixth largest population in the world and almost half of its GDP coming from entrepreneurial activities, the potential of this massive cohort of entrepreneurs to mitigate GHG emissions and enable a more environmentally friendly system of production and trade is significant.

Public institutions can design incentives into the competitive environment to motivate all entrepreneurs in a specific sector to pursue similar sustainable practices and thus gain increasing access to support, subsidies or other benefits like tax breaks and market platforms. These kinds of policies will make the coercive component of DiMaggio & Powell (1983) framework more corporative rather than coercive, even though regulatory enforcement is also very important. The provision of fundamentals like stable national grid power, critical infrastructure for waste sorting, management and proper disposal, and access to training and orientation will help ease adoption and strengthen the already present cognitive alignment with sustainability practices. The study through the use of primary data gathering reveals a relevant mix of willingness to act and obstacles to action in entrepreneurs' daily lives and given the simplicity of the responses also presents an easily accessible set of solution elements that can be built on for a more effective sustainability transition journey in Nigeria.

6 CONCLUSION

The study offers insights into an important issue in today's global economic and social space. Given the importance of managing global warming and climate change, now more than ever, it is important to explore the effectiveness of all agents in tackling change. Political agencies, multilateral institutions, corporations, entrepreneurs and other stakeholders have been researched in different contexts. This study adds to the pool of knowledge by researching entrepreneurs in the context of the adoption of sustainability practices in a developing country situation - with Nigeria as the focal country. Opportunities for impact and progress emerged in the form of barriers and drivers to sustainability. These can be useful in understanding where action can be taken for near-term effects or as a starting point for understanding the state of things and for deciding in what direction to perform more research. The study presents relevant avenues for policy intervention and also shows layers of activity and layers of inactivity. For example, the responses of the study participants show that most of the coercive forces currently influencing entrepreneurs to adopt sustainability practices are at the federal layer of government while state and local governments which are much closer to the entrepreneurs have almost no active mechanisms of enforcing unified sustainable practices among entrepreneurs. The study ultimately opens different areas where deeper research could be conducted to reach a clearer and more potent understanding of the most effective ways to crystallize positive sustainable practices adoption both in the coercive, competitive and normative dimensions of the entrepreneurial space in Nigeria.

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APPENDICES

APPENDIX 1: Interview Guide

Interview Guide.

Section 1 - General knowledge of sustainability/sustainability transition

- 1) What kind of entrepreneurial activity do you do and how long have you been an entrepreneur?
- 2) What is your general attitude towards sustainability?
- 3) What steps have you taken to move towards sustainability?
 - Why have you taken these steps, or why have you have not?
- 4) What immediate specific sustainability actions you would like to take?
 - Why have you not taken them?
 - What would enable you to take those actions?

Section 2 - Awareness and response to the institutional environment

- 1) What are the government policies on sustainability transition in Nigeria?
- 2) Are there any policies on sustainability or environmental conservation in your state or city of residence?
- 3) How do these institutions and their policies affect your business?
- 4) What specific policy point would help you be more sustainable?

Section 3- Attitudes toward sustainability transitions among competitors

- 1) Do you know what your competitors/organizations in your business sector have done regarding sustainability practices?
- 2) What are your thoughts on these practices?
- 3) Have you followed similar practices (why/why not)?
- 4) What sector-wide sustainability requirements are present in your line of business?

Section 4 - Customer and Market Dimension on Sustainability

- 1) How does sustainability affect your brand?
- 2) What is the customer perception of sustainability in your market?
- 3) What is the value of sustainability to your brand perception and overall market presence?
- 4) How does the customer perception premium influence your business decisions?