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Sustainable Supply Chain Management in the Nigerian Consumer Goods Manufacturing Sector

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This is to certify that the doctoral dissertation by

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Walden University
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Abstract

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MBA, Clayton State University, 2013

MS, De Montfort University, 2006

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Dissertation Submitted in Partial Fulfillment

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Abstract

Supply chain practitioners in developing economies, like Nigeria, experience challenges in implementing sustainable supply chain management practices. Poor sustainability implementation engenders the negative effects of supply chain operations on people, the environment, and business continuity. The purpose of this qualitative transcendental phenomenological study was to explore and describe the experiences of supply chain practitioners in the consumer goods manufacturing industry in Nigeria about sustainable supply chain management based on the theoretical foundations of stakeholder and general systems theories. The focus of the research question was to examine the experiences of supply chain practitioners to understand the challenges in implementing sustainable supply chain management practices. Data were collected through semistructured face-to-face interview of 21 practitioners with a minimum 3 years of professional experience using the purposive sampling strategies of key knowledgeables and snowball to achieve saturation. Interviews were transcribed and analyzed guided by the Husserlian transcendental phenomenological approach for essences. The major finding was that the cost of implementing sustainability initiatives and poor government policies and regulations were the most significant barriers. Sustainability in the supply chain is still at its infancy in Nigeria, with room for improvement. The findings could contribute to positive social change as supply chain practitioners may better engage stakeholders and implement sustainability practices that minimize the negative effects of their supply chain operations on society and the environment.

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Dedication

I dedicate this study to the Almighty God for His Grace and Mercies.

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I want to specially thank my wife, Emoshoke, for her unflinching support and being by my side throughout this period. This journey would not have been possible without her. I would also like to mention my children, Izoduwa and Ivie, for their presence and motivation, who would later realize and understand why daddy was always working on his computer. My mother-in-law, Lilian Braimah, who was there when we needed her the most. My late brother Owen, 'The Constitution Amender,' truly an inspiration. My parents, Senator and Mrs. Owie KSJI, for their continuous support, prayers, and belief.

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Chapter 1: Introduction to the Study

Sustainability is a significant topic given the need to consider social and environmental issues for the benefit of present and future generations. The topic of sustainable supply chain management (SSCM) has transitioned from merely fringe to mainstream due to the need to consider a wide range of environmental and social issues in the operations of firms (Mani, Gunasekaran, & Delgado, 2018; Pagell & Shevchenko, 2014). Scholars have continued to examine the topic of sustainable supply chain management (Dubey, Gunasekaran, Childe, Papadopoulos, & Fosso Wamba, 2017a; Rajeev, Pati, Padhi, & Govindan, 2017).

Sustainable supply chain management integrates sustainability principles in terms of economic, social, and environmental considerations into supply chain management practices (Ansari & Qureshi, 2015; Esfahbodi, Zhang, & Watson, 2016). Despite the literature on the importance of sustainable supply chain management, and success stories of firms driving sustainability in their supply chains, firms in developing and emerging economies experience unique challenges (Galal & Moneim, 2016; Silvestre, 2015).

The focus of this study was to explore and describe the experiences of supply chain practitioners in the consumer goods manufacturing industry in Nigeria on sustainable supply chain management. The social implications of this study could be a paradigm shift from the traditional single economic metric considerations in the supply chain activities of firms. This shift could engender a broader approach to incorporating other critical factors such as the impacts of the supply chain activities on society and the environment.

In this first chapter, the discussions will encompass the background on the topic of SSCM, the articulation of the problem statement, purpose statement, and research questions. The discussions in this first chapter will include a brief introduction of the theoretical and conceptual foundations underpinning this study, the nature of the study, scope, delimitations, limitations, and significance of the study

Background of the Study

Sustainable supply chain management is an important topic in research. Research into sustainable supply chain management has gained tremendous attention in the supply chain management, operations management, business, ethics, and sustainable development discourses (Brandenburg, Govindan, Sarkis, & Seuring, 2014; Mani et al., 2018; Pagell & Shevchenko, 2014; Touboulic & Walker, 2015a). Sustainable supply chain management brings to bear the level to which firms and their stakeholders can collaboratively manage processes related to intraorganizational and interorganizational dynamics to achieve sustainability performance (Lu, Lai, & Chiang, 2016).

Sustainable supply chain management as an integrative approach to managing business processes for sustainability to achieve long-term benefits for all stakeholders is critical. Having a holistic or integrative approach for collectivity in enhancing decision making for improved sustainability is vital (Brandenburg et al., 2014; Rajeev et al., 2017). In the supply chain environment, firms cannot operate independently (Lam, 2018). As such, internal sustainability practices of leveraging resources, capabilities, and competencies as well as external collaboration with partners to extend sustainability

practices for effective performance can foster the desired synergistic coordination in supply chains as Lu et al. (2016) alluded.

There is a scarcity of knowledge in the literature regarding how supply chain practitioners in nondeveloped economies plan and implement sustainable supply chain management practices considering their contexts (Galal & Moneim, 2016; Silvestre, 2014, 2015). The lack of research focused on the factors that are specific and valuable to supply chain practitioners in developing and emerging economies as against the most propagated and hegemonic western perspectives accentuate the dearth in the literature (Rajeev et al., 2017; Touboulic & Ejodame, 2015). How supply chain practitioners in nondeveloped contexts experience sustainable supply chain management is also important to enriching the literature that could improve research and practice.

Supply chain practitioners in emerging and developing economies encounter challenges in implementing sustainable supply chain management practices (see Galal & Moneim, 2016; Silvestre, 2015). Uncovering the challenges based on the unique experiences of sustainability by practitioners in a developing or emerging economy context could engender strategies for mitigating such challenges. Such unique strategies are vital for successfully implementing and managing sustainable supply chains that face context-specific circumstances (Silvestre, 2014).

The field of sustainable supply chain management has had its fair share of a multiplicity of research frameworks. There have been various challenges related to theory and methodology in sustainable supply chain management research and practices given the operations management integration backdrop (Touboulic & Walker, 2016).

The supply chain management field has increasingly seen studies that examined issues using case study methodology and little theoretical grounding with the importation of conventional theories from other related fields (Touboulic & Walker, 2015a, 2016).

There have also been studies done using field research, surveys, and mathematical models (Brandenburg et al., 2014; Wu, Liao, Tseng, & Chiu, 2016). There is less attention to the systemic and transformative aspects of sustainability in sustainable supply chain management research and a focus more on organizational survival or profitability (Rajeev et al., 2017; Touboulic & Walker, 2016). The interests in the field are geared towards the economic aspect of organizational survival and less on the social and environmental transformative aspects.

Scholars are conducting more studies in the field of sustainable supply chain management considering the significance of addressing issues related to the society and environment (Pagell & Shevchenko, 2014; Rajeev et al., 2017). The field has been characterized by the separation of sustainable supply chain management research and supply chain management as well as variations in prioritizing one aspect of sustainability over others (Brandenburg et al., 2014; Pagell & Shevchenko, 2014; Rajeev et al., 2017; Touboulic & Ejodame, 2015).

There has been a focus by researchers on green supply chain management that overlooks the social aspect of the holistic sustainability principle. A more inclusive systems approach to research in sustainable supply chain management that takes into consideration the relationships and interdependence of all actors and interests in the

supply chain is a step in the right direction (Rajeev et al., 2017; Touboulic & Walker, 2016; Vidal & Croom, 2018).

Despite the advancement in research for fostering more sustainable supply chains, the challenge remains in providing answers related to ways for achieving true sustainability of supply chains (Montabon, Pagell, & Wu, 2016; Pagell & Shevchenko, 2014). Supply chain professionals are better placed to shape sustainable practices even though they may perceive sustainability in diverse ways (Azadi, Jafarian, Saen, & Mirhedayatian, 2015; Carter & Rogers, 2008) as well as implement supply chain processes and take actions (Schulze & Bals, 2018). The integration of supply chain practitioners in academic research is important to positively advance theory and practice (Fahimnia, Sarkis, & Davarzani, 2015). Overall, research on sustainability is about recognizing change drivers for enhancing current practice (Touboulic & Walker, 2016).

Notably, the gap in the literature regarding sustainability from the perspective of nondeveloped economies and the chasm between theory and practice in sustainable supply chain management accentuate the problems in implementing sustainability practices especially in the nondeveloped economies (Gualandris, Klassen, Vachon, & Kalchschmidt, 2015; Schulze & Bals, 2018; Silvestre, 2015; Touboulic & Ejodame, 2015; Varsei & Polyakovskiy, 2017). These developing and emerging regions face complex realities in dealing with sustainability in their supply chains (Galal & Moneim, 2016; Silvestre, 2015; Touboulic & Ejodame, 2015). This qualitative transcendental phenomenological study was vital to exploring and describing the experiences of supply chain practitioners in the consumer goods manufacturing sector in Nigeria about

sustainable supply chain management from the perspective of a developing economy. The findings could provide context-specific insights as to how to create truly sustainable supply chains in those regions.

Problem Statement

The unsustainable supply chain management practices of organizations are a major contributing factor to some negative social and environmental occurrences (Human Rights Watch, 2016; Huq, Chowdhury, & Klassen, 2016; Lopez & McKevitt, 2016). Because of these management practices, millions of people including children die and are abused yearly due to forced labor, trafficking, and environmental pollution (International Labour Organization, 2017; Thorlakson, de Zegher, & Lambin, 2018; World Health Organization, 2016). Studies on sustainable supply chain management are essential for organizations in considering the social and environmental issues in their operations to mitigate these attendant negative consequences.

The general problem was that developing and emerging countries experience challenges implementing supply chain management sustainability due to their unique circumstances and dynamics that limit the progress towards achieving sustainable performance targets (Galal & Moneim, 2016; Silvestre, 2015; Touboulic & Ejodame, 2015). The challenge of implementing sustainability in supply chains by practitioners is on the increase on a global scale (Gualandris et al., 2015; Schulze & Bals, 2018; Varsei & Polyakovskiy, 2017). Most of the studies on sustainability in supply chain focus on the contexts of developed economies (Ansari & Kant, 2017; Mathivathanan, Kannan, & Haq, 2018; Rajeev et al., 2017).

The specific problem was that the implementation of sustainability in supply chains in Nigeria, a developing economy, is a challenge (see Ojo, Mbohwa, & Akinlabi, 2015; Shitu & Mohd-Nor, 2017; Touboulic & Ejodame, 2015). What supply chain practitioners know about sustainable supply chain management implementation and practice from the developed contexts may not apply to all developing and emerging economies (Pereseina, Jensen, Hertz, & Cui, 2014; Silvestre, 2015; Touboulic & Ejodame, 2015) leading to sustainability implementation challenges. The consumer goods manufacturing industry in Nigeria is a major contributor to the gross domestic product (National Bureau of Statistics, 2018; The Nigerian Stock Exchange, 2017). Supply chains of consumer packaged-goods companies account for 80% of greenhouse gas emissions and 90% of the negative impact on natural and geological resources globally (Titia Bove & Swartz, 2016). Poor sustainability in supply chains engenders negative social and environmental impacts that could also affect the profitability of firms (Huq et al., 2016; Titia Bove & Swartz, 2016; Tseng, Lim, & Wong, 2015). Understanding the challenges of implementing sustainability by supply chain practitioners in the consumer goods manufacturing sector in Nigeria is important.

Purpose of the Study

The purpose of this qualitative transcendental phenomenological study was to explore and describe the lived experiences of supply chain practitioners in the Nigerian manufacturing consumer goods sector about sustainable supply chain management to understand the challenges they face in implementing sustainability. The sustainable supply chain management phenomenon involves the focus on the integration of the triple

bottom line vis-à-vis economic, social, and environmental considerations within an organization's supply chain from raw materials to the finished product in customers hands (Ansari & Qureshi, 2015; Eitiveni, Kurnia, & Buyya, 2017; Jaegler & Sarkis, 2014).

Research Question

The following research question shaped this study:

RQ: What are the lived experiences of supply chain practitioners in implementing sustainable supply chain management practices in the consumer goods manufacturing industry in Nigeria?

Theoretical Foundation

The development of a framework is a fundamental part of the research process. A framework provides the overarching platform that supports the study and provides context for the main components vis-à-vis the research problem, purpose, significance, question, and design (Crawford, 2016). The theoretical lenses for this study are stakeholder theory and general systems theory. The use of the propositions of stakeholder and general systems theories for this study was to provide contextual support for the conceptual frameworks in the holistic examination of sustainable supply chain management practices through the collaboration of different stakeholders across various organizational functions.

Stakeholder theory brings to bear the considerations of a firm's internal and external stakeholders (Freeman, 1984). Stakeholder theory proposes that a firms' value creation should include ethics and economic considerations (Freeman, Wicks, & Parmar,

2004). In addition, stakeholder theory involves the coordination of organizational activities in a complex and dynamic environment (Freeman, 1984). The use of stakeholder theory for this study ties into the concept of the sustainability phenomenon under investigation that involves economic, social, and environmental considerations by organizations in their supply chains.

General systems theory is about seeing and exploring organized entities in a complete picture rather than isolating specific parts in the broader scheme of investigating a phenomenon (Bertalanffy, 1972). General system theory is about the totality of a self-regulating system with multiple interactions among different agents, integrating different points of views to achieve a common purpose. The general systems lens allows for the transcending of boundaries or hybrid disciplines (Boulding, 1956). The use of this theory in this study was for the holistic exploration of sustainable supply chain management practices by supply chain practitioners in organizations.

According to Ravitch and Carl (2016), a component of the conceptual framework is the theoretical underpinnings that capture formal theories that are relevant to the concepts of the study. Thus, the role of theory here was inductive in contextualizing the concepts of the study (see Babbie, 2017; Ravitch & Carl, 2016) as they relate to the various elements of the study such as the goals and research questions. The combination of the conceptual perspectives within the overlapping general systems and stakeholder theories provided the integrative and multidimensional view for gaining insights into the phenomenon under study (see Varsei, Soosay, Fahimnia, & Sarkis, 2014). The theories

accounted for the investigative lenses into the phenomenon under study (see Dawidowicz, 2016).

Conceptual Framework

Qualitative study as an inductive approach mostly uses the conceptual framework (Ngulube, Mathiapa, & Gumbo, 2015) based on the researcher's philosophical orientation (Burkholder, 2016; Burkholder & Burbank, 2016). Thus, the choice of a conceptual framework for this qualitative study is consistent with my constructivist philosophical orientation that crystalizes the theoretical perspective (see Creswell & Poth, 2018; Denzin & Lincoln, 2013). The conceptual framework for this study was Carter and Rogers's (2008) and Gupta, Abidi, and Bandyopadhayay's (2013) three-dimensional framework for sustainable supply chain management.

Carter and Rogers's (2008) conceptual framework for sustainable supply chain management involves the triple bottom line concepts that include economic, social, and environmental. The supporting facets are risk management, transparency, strategy, and culture (Carter & Rogers, 2008). The underpinning philosophy behind the framework is that the four supporting facets vis- à -vis risk management, transparency, strategy, and culture make up the overall organizational levers for transparently integrating, coordinating, and collaborating with stakeholders for sustainability performance and long-term benefits. This framework and the related concepts were very relevant to understanding the sustainability phenomenon and lent credence to the qualitative approach of this study and is discussed in Chapter 2.

Gupta et al.'s (2013) framework involves three dimensions that include (a) supply chain actors vis-à-vis supplier, manufacturer, distributor, retailer, and the customer; (b) strategic, tactical, and operational management functions; and (c) innovation, environmental, and social sustainability goals. The essence of this three-pronged framework discussed in Chapter 2 highlights the notion that the sustainable management of supply chain actors across all management functions will engender effective sustainability performance.

According to Ravitch and Carl (2016), a conceptual framework is a foundational source of reflexive thought and actions throughout the research process. In other words, the conceptual framework is like the floorplan of a house that contains the details of the structure of the study, which includes the logical flow of concepts that convey the relationships of the different elements in the study (Grant & Osanloo, 2014).

Both Carter and Rogers's (2008) and Gupta, et al.'s (2013) framework provided concepts that consistently run through the seminal and extant literature on sustainable supply chain management. Also, the frameworks highlight the encapsulating concept of integrative management that focuses on meshing social, environmental, and economic considerations in a holistic manner (see Jabareen, 2008), and thus, relevant to this study. These concepts were valuable in developing the interview questions for the research instrument consistent with the goals and central research question of the study to elicit detailed responses as well as provided guidance during analysis and situating of findings.

Nature of the Study

The focus of this study was to explore and describe the experiences of supply chain practitioners about sustainable supply chain management from a developing economy standpoint. The nature of this study was qualitative. The qualitative approach allows for the use of naturalistic methods in the natural environment of the participants, an inductive as well as an interpretive process for describing and analyzing the contextual phenomenon under study relative to the participants (Denzin & Lincoln, 2013; Erickson, 2011; Ravitch & Carl, 2016). The qualitative approach enabled the interaction with participants in their unique and natural environment to provide insights for understanding their experiences and broader mindsets (see Merriam & Tisdell, 2016; Yin, 2016).

Phenomenology is about studying human experiences relative to a phenomenon (Dawidowicz, 2016; Moustakas, 1994; Sloan & Bowe, 2014; Vagle, 2014). The qualitative phenomenological approach was crucial to exploring the experiences of supply chain practitioners related to sustainable supply chain management based on their unique and individual experiences for commonalities (see Moustakas, 1994). Most importantly, the phenomenological approach allows for the exploration and description of the experiences of individuals for exclusive or shared meanings (Patton, 2015).

There are various strands and traditions in phenomenology (Van Manen, 2014). For this study, the transcendental phenomenology approach was best and provided the structure for exploring the lived experiences as they are presented while attempting to draw meanings and describe essences of the experiences of the participants without using non-given factors (see Moustakas, 1994; Giorgi, 2009). Unlike Heidegger's hermeneutic

phenomenological approach that focuses on interpretations, the goal of this study was to describe the experiences of participants by putting aside preconceived notions consistent with transcendental phenomenology (see Laverty, 2003; Sloan & Bowe, 2014).

A case study approach was part of the consideration as the method of inquiry to provide an in-depth understanding of the contemporary phenomenon in the context of a developing economy (Yin, 2018). Case studies allow for the exploration of a phenomenon with respect to human activity within a particular context (Stake, 2011). Because the focus of using case studies is to understand the attitudes of participants in a bounded unit with respect to a phenomenon (see Crawford, 2016; Merriam & Tisdell, 2016), whether, by defined setting and timeframe (see Creswell & Poth, 2018), the approach was not suitable for this study.

According to Creswell and Poth (2018), the constructivist worldview is evident in phenomenological studies. In the same vein, Burkholder and Burbank (2016) posited that the ontological and epistemological assumptions of constructivism are relativist because the truth is subject to the individual perception of reality and knowledge is cocreated through the interactions of individuals respectively. This philosophy is consistent with the beliefs that individuals, groups, or communities can present unique facts that may not necessarily be generalizable and thus, aligned with the phenomenological approach. As Van Manen (1990) pointed out, phenomenological studies are the antitheses of generalizing that undercut the unique experiences of situations. This qualitative phenomenological approach helped to provide context-specific experiences of the phenomenon under consideration in this study.

In phenomenological studies, the primary parameter is that the individual has lived the experience under study (Moustakas, 1994). The sampling plan for this study involved the consideration of the general and essential criteria such as age, location, willingness to participate, and relevant experiences of potential participants. Participants were above the age of 18, with a minimum of 3 years of experience as a supply chain practitioner in the consumer goods manufacturing sector in Nigeria. The combination of key knowledgeables and snowball sampling strategies constituted the purposive sampling plan (see Patton, 2015) to find 21 supply chain practitioners to achieve saturation given the homogeneity of participants (see Guest, Bunce, & Johnson, 2006).

The data collection format was face-to-face interviews in the field using an audio recorder and field notes. An in-vivo hand coding method (Saldaña, 2016) facilitated the coding of the verbatim transcripts supported by NVivo 12 plus software. Overall, the framing of the analysis was within the Husserlian transcendental methodological steps as adapted by Moustakas (1994) that involved epoche, phenomenological reduction, imaginative variation, and synthesis of descriptions to generate essences with respect to the phenomenon under study.

Definitions

A review of relevant extant and seminal key concepts and terms related in a study is important in understanding fundamental dimensions in that field and provides the foundation for gaining deeper insights into the topic under consideration (Burkholder, 2016). Altogether, terms and concepts provide clarity and minimize ambiguity

(Burkholder, 2016; Burkholder & Burbank, 2016). Accordingly, the list of the relevant terms and concepts in this study are:

Epoche: Greek word for abstention; an essential step in the transcendental phenomenological method for putting aside preconceived notions in looking at phenomena as presented (Moustakas, 1994).

Essences: Descriptions of universal meanings based on the perceived experiences of individuals as presented (Moustakas, 1994).

Management: Procedures and practices for dealing with complexity, ensuring order, and consistency in achieving set targets (Kotter, 2001).

Stakeholder: A person or group with vested interests that can influence certain decisions and could also be impacted by decisions (Mulcahy, 2013).

Supply chain: A supply chain comprises of organizations or individuals and processes for the movement of information and materials from source to customers across the upstream and downstream flow (Jacobs & Chase, 2013; Mentzer et al., 2015).

Sustainable: A state of a system that assures short-term and long-term survival across social, economic, or ecological interests (Brown, Hanson, Liverman, & Merideth, 1987).

Sustainability: Principles and practices to achieve a sustainable state where the current state of affairs does not diminish the well-being of the future (Kuhlman & Farrington, 2010).

Systems: Sets of interconnected things or people that generate a certain pattern of behaviors over a period (Meadows, 2008).

Transcendental: Descriptive phenomenology for reducing individual experiences into patterns and themes for essences (Dawidowicz, 2016).

Triple bottom line (TBL): A conceptual term that was developed to capture the economic, social, and environmental elements in an integrated way for sustainability progress (Elkington, 2004).

Assumptions

As part of the delineators of a study, assumptions are essential. Despite the self-evident nature of assumptions, explicitly articulating assumptions is crucial to provide the basis and make the study meaningful (Leedy & Ormrod, 2013). Assumptions should convey the critical condition of the study, the justified basis, and connection with the attendant procedures of the study (Crawford, Burkholder, & Cox, 2016). Overall, assumptions enhance the strength of the research report (Walker, 2003).

The first assumption for this study was that the transcendental phenomenological approach that is consistent with the constructivist philosophy would provide the structured path to exploring and describing the experiences of supply chain practitioners. The second assumption was that the selected participants would be a reflection of the population and be able to provide appropriate and accurate responses to the interview questions based on their unique experiences and state of mind.

A third assumption related was that there would be no unpredictable and random events that would interrupt the interviewing sessions. A fourth assumption consistent with the analysis and reporting procedure was that the local factors in the settings might provide for the contextual understanding of the inductive patterns and themes generated.

A fifth assumption related to the analysis was that a complete reflection was possible in the epoche stage during the transcendental phenomenological analysis.

Scope and Delimitations

In providing further clarity and focus to the study as part of the delineators, the articulation of the scope and delimitations is crucial. According to Crawford et al. (2016), the scope of the study addresses the applicable population or the interested group and should be in alignment with the title of the study while the delimitations streamline other aspects of the study such as participants, time, or setting with reasons for inclusions and exclusion in alignment with the chosen population. These boundary choices are the prerogative of the researcher in line with the goals of the study (Simon & Goes, 2013).

To this end, the scope of this study was limited to a developing economy, Nigeria. This boundary was consistent with the problem of the study to understand the experiences of supply chain practitioners in that region regarding supply chain management sustainability. The choice of this population was consistent with the gap in literature to explore the context-specific perspectives of sustainable supply chain management from nondeveloped economies, given the unique and dynamic complexities in those economies (see Mathivathanan et al., 2018; Silvestre, 2015; Touboulic & Ejodame, 2015). Thus, the choice of the Nigerian population was consistent with the gap in literature as the country is one of the developing economies in the world.

Other developing and emerging populations were excluded as the Nigerian economy that was purposively chosen may offer the potential to provide insights through thick descriptions that could inform further studies in other similar economic contexts.

There are other frameworks that were excluded from the study, such as Porter's (1985) value chain and the Mentzer's (2000) supply chain model, as they did not account fully for the related sustainability concepts consistent with the goals of the study. In addition, theories, such as resource-based view, natural resource-based view, and institutional theories, that were also excluded have typically been used in quantitative research and did not align with the inductive approach to this study.

In narrowing the scope of this study, the population was delimited by not including other sectors of the economy such as the agricultural, construction, and oil and gas. This exclusion was consistent with the problem and purpose of the study to interview 21 supply chain practitioners in the consumer goods manufacturing industry to achieve saturation given the homogeneity of the participants (see Guest et al., 2006). In line with the research question, the chosen phenomenological design and the appropriate data collection method of interviews delimited the study. In addition, participant selection was from the consumer goods manufacturing sector of focal or buying firms located in the Southwestern region of the country based on feasibility and time frame for the completion of the doctoral study.

Limitations

The discussions about the limitations of a study address weaknesses in the design and methods as well as possible ways to mitigate the effects (Crawford et al., 2016). Every research will have some forms of limitations or attendant challenges (Simon & Goes, 2013). Most importantly, discussions about the limitations and biases of a study by

the researcher convey transparency, which is significant in demonstrating sincerity as part of the quality criteria (Tracy, 2010).

A limitation was the nonrandom sample size of 21 participants from one setting for the study. Given the scope and goals of the study, timeframe, and prohibitive logistical costs, interviewing a wider range of participants was not feasible. The use of purposive sampling strategies to identify key informants that allowed for in-depth findings (see Cohen, Manion, & Morrison, 2011) as well as providing thick descriptions of the research details provided a cushion in dealing with the limitation related to transferability of findings (see Anney, 2014; Guba, 1981).

Further, a limitation given my possible interpretive biases in data analysis arose from my experience as a supply chain professional and interest in sustainability and having done so from the Western context. Assuring the dependability of my findings involved keeping documents of data from the study without any participant identifying information for at least 5 years to enable audit trail (see Bitsch, 2005). The use of reflexive journals and the epoche process helped to mitigate these biases. I relied on participant validation and mentor examination of my analyses for the assessment of any possible drawbacks as well (see Ravitch & Carl, 2016; Guba & Lincoln, 1982). Altogether, these steps that addressed the potential limitations of the study formed the framework that mitigated the dependability issues.

Significance of the Study

The discussions about the significance the findings of a study could make are important. According to Crawford et al. (2016), articulating the significance of a study is

vital in conveying the *so what* of the research by way of contribution to practice, shaping policy changes, and inspiring future research. The approach to this study was qualitative to illuminate meanings by capturing the contextual experiences of others for an in-depth understanding of a problem that could engender solutions (see Patton, 2015). This qualitative transcendental phenomenological study could contribute to theory, practice, and positive social change as discussed below.

Significance to Practice

Fostering sustainable supply chain management practices is challenging without an understanding and integration of the requirements and attendant complexities in implementation (Reefke & Sundaram, 2017). The findings from this qualitative transcendental phenomenological study may provide support for professional practice by exposing unique experiences and perspectives about sustainable supply chain management and challenges in the consumer goods manufacturing industry in Nigeria. The insights could help to develop integrative strategies for implementing sustainable supply chain management practices and mitigating challenges towards achieving set performance targets. As Titia Bove and Swartz (2016) noted, companies cannot make progress towards sustainability without first understanding issues affecting their sustainable supply chain implementation.

This study may have the potential to contribute to filling the gap in the literature regarding the dearth of research that addresses the perspectives of sustainable supply chain management from the viewpoint of developing and emerging economies (Silvestre, 2015; Touboulic & Ejodame, 2015). According to Fahimnia et al. (2015), the lack of

non-Western research in the sustainable supply chain management discipline is a challenge, and more studies in such contexts are needed to provide innovative and exciting future directions. Researchers have mostly conducted studies in sustainable supply chain management in the developed context (Ansari & Kant, 2017; Fiorini & Jabbour, 2017; Mathivathanan et al., 2018; Touboulic & Ejodame, 2015). Thus, this study could provide original non-Western context-specific challenges or barriers to sustainable supply chain management in the manufacturing industry of a developing economy (see Silvestre, 2015) and opportunities for improving practice.

Significance to Theory

The dearth in the literature regarding supply chain sustainability from the perspectives of practitioners in nondeveloped economies and the chasm between theory and practice in sustainable supply chain management accentuate the problems in implementing sustainability practices in nondeveloped economies (Silvestre, 2015; Touboulic & Ejodame, 2015). The exploration of underresearched areas in sustainable supply chain management could provide insights for developing relevant theoretical frameworks that are currently lacking in the field (Touboulic & Walker, 2016). This research could provide underexplored insights into sustainability in supply chains from a developing economy perspective for holistic theoretical development to enhance understanding in the discipline and bridge the gap between theory and practice.

Theoretical themes on sustainability in supply chain management that are well structured could provide practitioners the prescriptive platform in shaping sustainable supply chain performance (Reefke & Sundaram, 2017). The findings from this study

may be consistent with providing insights into applicable sustainable supply chain theories such as stakeholder and systems theories for a better understanding of varying contextual dynamics. Findings from this study could provide theoretical insights that supply chain practitioners could use in a prescriptive manner in effectively implementing sustainable supply chain management practices.

Significance to Social Change

Social change is about helping and making a difference in people's lives and society. Social change is a social issue given the actions, outcomes, or processes that individuals embrace for the betterment of their communities and to advance common good (Yob & Brewer, n.d.), which could occur over a period (Spanos-Dunfey, 2017). The findings from this proposed study could positively affect supply chain practices at the local and national levels. At the local level, the understanding of the unique perspectives of participants and the challenges experienced in implementing sustainable supply chain management practices could help to develop strategies to mitigate those challenges. This step could engender considerations for social and environmental concerns at the local environments the companies and their supply chain partners operate in.

At the national level, the findings of this study could serve as a reference point for stakeholders in other industries across the country to collaborate and develop holistic sustainable models for mitigating challenges related to sustainability in supply chains in the interest and benefit of all stakeholders. The understanding of the perspectives based on sectors could also provide a framework for policymakers in decision making

(Brandenburg et al., 2014). Such industry-wide collaborative efforts might result in synergistic benefits for the organizations, the society, and the environment. Thus, the achievement of positive social change drive could happen when industries and key players begin to thoughtfully consider the effects of their operations on the society and the environment.

Summary and Transition

The emphasis on the importance and significance of sustainability practices in supply chains cannot be enough for improving practice. Sustainable supply chain management encompasses practices in the supply chain activities of firms that take into consideration social and environmental issues along with the imperative for profits. The topic of sustainable supply chain management has not only gained visibility in research but practice as well. There has been research exploring sustainable supply chain management practices and implementation.

There is still a dearth of literature regarding how stakeholders in developing and emerging economies implement sustainable supply chain management as well as the unique challenges they experience in sustainability efforts in their supply chains. The goal of this study was to fill the gap in the literature by exploring the experiences of supply chain practitioners in a developing economy, Nigeria about sustainable supply chain management. The findings provided insights into the challenges they experience in implementing sustainability principles. Most importantly, the findings from the study provided insights for developing strategies to mitigate barriers to successfully implementing sustainable supply chain management practices.

In this chapter, I have articulated in detail the problem, purpose, and research questions of the study. I also introduced the conceptual framework of the study, designs and methods, assumptions, scope, delimitations, limitations, and significance of the study. The subsequent chapters will involve the articulation of more details. Chapter, 2 includes a detailed discussion of the conceptual framework and literature review to ground the problem of the study as well.

Chapter 2: Literature Review

Advancing sustainability in supply chains in developing and emerging economies is problematic (Galal & Moneim, 2016; Silvestre, 2015; Touboulic & Ejodame, 2015). The implementation of sustainable supply chain management practices in Nigeria, a developing economy, is a challenge (see Ojo et al., 2015; Shitu & Mohd-Nor, 2017; Touboulic & Ejodame, 2015). Unsustainable supply chains open the potentials for significant negative impacts on human rights, the environment, and ecosystem (Lopez & Mckevitt, 2016; Organisation for Economic Co-operation and Development, 2016; Thorlakson et al., 2018). Specifically, supply chains of consumer-packaged goods companies account for over 80% and 90% of greenhouse gas emissions and contamination of natural and geological resources respectively (Titia Bove & Swartz, 2016). Further, few studies have examined how sustainable supply chain management is practiced and implemented from the perspective of developing economies and emerging economies (Ansari & Kant, 2017; Mathivathanan et al., 2018; Rajeev et al., 2017; Silvestre, 2015; Touboulic & Ejodame, 2015).

The purpose of this qualitative transcendental phenomenological study was to explore and describe the lived experiences of supply chain practitioners in the Nigerian manufacturing consumer goods sector about sustainable supply chain management to understand the challenges they face in implementing sustainability. The dearth in the literature about the understanding of sustainable supply chain management from the perspective of developing and emerging economies (Silvestre, 2015; Touboulic & Ejodame, 2015) cannot be overemphasized to improve practice. Thus, the context-

specific understanding of sustainable supply chain management from the consumer goods manufacturing sector of a developing economy, Nigeria, was important to understanding and addressing local supply chain management challenges to enhance sustainability practices.

This literature review chapter will highlight key syntheses of the relevant literature on sustainable supply chain management that ground the problem of this study. This chapter will include a summary of the problem and purpose of this study, the literature search strategy, conceptual framework and theoretical underpinnings, and the review of the seminal and contemporary literature on the central concepts and ideas on the topic of sustainable supply chain management.

Literature Search Strategy

The literature search strategy for this study yielded relevant papers on the topic of sustainable supply chain management. The search strategy was vital to obtaining the relevant literature on the topic of interest. Selecting relevant articles for analyses does not stop at the results page of the search. The articles will need to be scrutinized for relevance since a literature review uncovers what is known or lacking in knowledge in a particular field (Crawford et al., 2016). As Pezalla (2016) noted, skimming through the abstract of articles, the methodology, and credibility of the authors are important first steps in assessing the relevance and applicability of the literature. As part of the search strategy, articles were scrutinized for quality and relevance to the topic under study.

Databases

As part of the search strategy, certain databases were used to obtain current and peer-reviewed journal articles in the supply chain and sustainability field. The ProQuest database provided access to relevant articles, reports, dissertations, and newspapers. Also, the Emerald Insight database was used to access full-text journals on sustainable supply chain management. As a supplement to these databases, the Business Source Complete and Science Direct databases were used to source for journals on business and operations management related to the topic under study.

Search Engines

The search engines for this study involved the use of the Walden University library that is robust to get relevant contemporary and seminal articles related to the topic of sustainable supply chain management and the conceptual and theoretical underpinnings that were not easily accessible due to external affiliation sourcing and cost. Also, the Google search engine was used to source general information on relevant statistics about the topic under consideration to support various points highlighted. In addition, the Google Scholar search engine was used as a follow up to the Walden University engine to streamline the literature search.

The Google Scholar search engine was configured to deliver weekly updates on the topic and linked to the Walden library for easy access and download of relevant articles found. Further, I used the WorldCat search engine to search for books located in libraries around my location. The WorldCat engine was also linked to the Google

Scholar search engine to provide for a robust and systematic search and access to relevant resources.

Search Terms

The search terms used to obtain relevant literature on the topic of sustainable supply chain management were varied. Some terms were used independently to search as well as combined to get a thorough list of relevant sources. Terms such as *supply chain, supply chain management, sustainability,* and *triple-bottom-line* were both combined and separated during the search to get background information on the topic. S*upply chain management* and *sustainability* were put within quotation marks to produce more relevant resources in the Science Direct and Emerald Insight databases. Specifically, the search terms that relate to the problem of the study include *sustainable supply chain management, sustainable development, developing economies,* and *emerging economies* were also used in the ProQuest Central database with the checked option of limiting articles to peer-reviewed only results. These search keywords were combined and separated to tailor the results output and assess relevancy.

Further, search keywords such as *stakeholder, collaboration, systems, general systems, supply chain actors,* and *supply chain functions* were used to get relevant articles on the conceptual framework and theoretical underpinnings from the Business Source Complete and ABI/INFORM Global databases. The iterative approach involved combining and separating the keywords to obtain relevant results. The search with the use of keywords also involved setting a time range to see what results showed up within

the last 5 years and prior for comparative analyses in the evolution of ideas and application.

Theoretical Foundation

Theories play vital roles in the research process to better understand and explain concepts. According to Burkholder and Burbank (2016) theories help to illustrate connections between concepts for a better understanding of a phenomenon. The qualitative research process involves theory (Denzin & Lincoln, 2013) and the role of formal theory is inductive in contextualizing the concepts that are critical in understanding the phenomenon of the study (Ravitch & Carl, 2016). Therefore, the theoretical contexts for this study are general systems and stakeholder theories. The theoretical perspectives provided the lenses for exploring the phenomenon (see Ngulube et al., 2015) and the intersectional understanding (see Van Manen, 2014) of the concepts of sustainability in supply chains in this study.

General Systems Theory

General systems theory is about the holistic view of a system as compared to aggregating or dividing a system into parts. Von Bertalanffy pioneered the idea of general systems theory as an offshoot of the evolved Aristotelian systems approach that focuses on a global perspective in understanding the functioning of a system (De Florio, 2014; Mele, Pels, & Polese, 2010). The discussion about general systems theory cannot occur without examining the meaning of a system (Skyttner, 1996). A system is made up of interrelated elements relative to the environment in which they exist (Bertalanffy,

1972). As such, systems encompass society, nature, science, or information systems (Mele et al., 2010).

The idea of systems from the Aristotelian perspective as holistic and teleological is very much valid (Bertalanffy, 1972). Its relevance to the backdrop of history can be likened to the age of European philosophy (Bertalanffy, 1972). Thus, the foundation of general systems theory stems from a longstanding historical systems context that cannot be overemphasized. General systems theory as a lens for seeing things is made up of three broad aspects vis-à-vis mathematics as systems science, technology, and philosophy that encapsulates how various aspects of reality are perceived as a whole (Bertalanffy, 1950; Bertalanffy, 1972). Thus, systems thinking underline the general system theory philosophy (Skyttner, 1996).

General systems theory, based on its origin, emphasizes the whole while downplaying focus on just parts. According to Bertalanffy (1972), general systems theory is about seeing and exploring organized entities in a complete picture rather than isolating specific parts in the broader scheme of investigating a phenomenon. The general system theory is the antithesis of the reductionist philosophy of breaking up into parts and specific processes a complex phenomenon (Bertalanffy, 1972). That is, general systems theory focuses on less reduction for a more holistic and generalizable approach that fosters easy and more communication across disciplines for expanding knowledge (Bertalanffy, 1950; Boulding, 1956).

For Bertalanffy (1972), the development of general systems theory was about having a discipline that has general principles, which could be applied to other disciplines

in the broader exchange of information among systems. Similarly, the quest of general systems theory is to develop generalizable constructs for explaining relationships in the real world (Boulding, 1956). In other words, the focus was about the bringing together of various strands of science for a unified and generalizable philosophy. Thus, general system theory is interdisciplinary in nature regarding drawing commonalities from among various disciplines (Bertalanffy, 1972). Hence, general systems theory attempts to cut across all disciplines.

General systems theory is not focused on a single theory that addresses everything across all disciplines but an optimum balance of generality (Boulding, 1956). As such, various scholars in the field have conceptualized general systems theory to include holism, interrelationship, interdependence, goal-seeking, transformation, regulation, entropy, differentiation, hierarchy, equifinality, and multifinality (Kast & Rosenzweig, 1972; Skyttner, 1996). These concepts make general systems theory all-inclusive and multidisciplinary. General systems theory assumes that the world is an ordered cosmos and the reductionist approach to providing solutions for real-world problems is inadequate (Skyttner, 1996). Hierarchy and totality drive the unification of complex and diverse ideas as against decentralized and bracketed ideas.

The two-fold objectives of the general systems theory are, at the minimum, to construct theoretical models from different disciplines that could be applied to two or more disciplines and at the maximum developing a gestalt of theories for further research (Boulding, 1956). At the same time, these objectives for interdisciplinary collaboration could go awry. Boulding (1956) asserted the framework of coherence that involves the

selection of some common phenomena across disciplines and ranking them based on complexity could help sustain order in the quest towards the interdisciplinary movement. Thus, the framing of general systems theory application within the framework of coherence could engender the efficacy being sought for unification.

The general systems lens allows for the incorporation of different concepts to better understand a phenomenon. Boulding (1956) conceptualized general systems theory as a skeleton of science that allows for the fusion of various strands of knowledge from different disciplines within a framework for coherence. This lens allows for the transcending of boundaries or hybrid disciplines (Boulding, 1956). Thus, with the general systems perspective, the various conceptual ideas in this study related to sustainable supply chain management were weaved together for coherence in understanding the experiences of supply chain practitioners in the consumer goods manufacturing sector of Nigeria.

Dubey et al. (2017b) used the system theory lens to examine the interrelationships among the drivers of sustainable supply chain management. Alblas, Peters, and Wortmann (2014) used systems theory in exploring and understanding challenges in sustainability management from a holistic perspective. Similarly, Montgomery and Oladapo (2014) using the general systems theory perspective explored the vulnerability in the global value chains within the healthcare system due to talent management and concluded with the need for talent development to enhance and take advantage of opportunities in the value chain. Also, Koh, Gunasekaran, and Tseng (2012) employed systems theory to investigate the effects of environmental directives on supply chains on

the path of environmental (green) sustainability. The use of systems theory in these studies helped to put into perspective the various parts and complex interactions in a system or organization.

In conclusion, the goals of general systems theory in understanding the whole convey a qualitative and descriptive nomenclature (Skyttner, 1996). General systems approach allows for the development of other approaches that apply to management (Mele et al., 2010). The central research question for this study was about the lived experiences of supply chain practitioners in implementing sustainable supply chain management practices in the consumer goods manufacturing industry in Nigeria. The use of general systems theory in this study was significant to holistically examine and understand sustainable supply chain management practices from the triple bottom line angle by supply chain practitioners that may engender collaboration across various functional areas for solutions to attendant challenges.

Stakeholder Theory

Stakeholder theory evokes the proposition of putting into perspective the consideration of the various stakes or interests in a system. Edward Freeman pioneered stakeholder theory and its application in the 1980s in response to the attendant business problems of value creation, ethics, and managerial mindset (Parmar et al., 2010; Tullberg, 2013). Freeman provided the foundation for the development of stakeholder theory with a focus on actors in a system or environment (Key, 1999). In other words, Freeman pioneered a new paradigm for elevating the discourse regarding the thought processes and engagement of actors in an environment by managers.

The notion of stakeholder theory is about how executives think about strategy and relationships (Freeman, 1984; Freeman, 2004). Stakeholder theory promotes the practical framework for the fair, honest, and generous treatment of all stakeholders in a business (Harrison, Freeman, & de Abreu, 2015). Stakeholder theory focuses on how managers can promote shared value through relationships with stakeholders in conducting business (Freeman et al., 2004; Harrison & Wicks, 2013). The core of stakeholder theory is the relationships between business and other people and entities that are affected by the operations of the business for effective and ethical value creation (Parmar et al., 2010; Tantalo & Priem, 2014).

In the development of stakeholder theory, scholars have addressed the various, but comingling, aspects of the theory. Donaldson and Preston (1995) posited that stakeholder theory is (a) descriptive in the sense of describing the various competing interests in a corporation, (b) instrumental by providing a framework for evaluating stakeholder practice and outcomes, (c) normative in the sense of embracing the legitimacy and values of stakeholders, and (d) managerial by emphasizing attitudinal change by key actors. The syntheses of these different and supporting aspects of stakeholder theory are vital in understanding the essence of the theory (Donaldson & Preston, 1995; Parmar et al., 2010).

The fundamental assumption of stakeholder theory is that values are at the heart of business activities such that no chasm exists between ethics and economics (Freeman, 1984; Freeman et al., 2004). That is, creating valuable benefits for all identified stakeholders by meshing the quest for profitability with moral responsibility. Thus, value

creation for multiple groups of stakeholders is possible through managerial relationships and stakeholder engagement (Freeman et al., 2004; Joyce & Paquin, 2016; Parmar et al., 2010; Tantalo & Priem, 2014). Overall, stakeholder identification is central to relationship management and value creation in firms (Crane & Ruebottom, 2011).

Stakeholder theory is considered as a model for understanding the interconnected business problems of value creation and exchange, ethics and capitalism, and management thought processes (Parmar et al., 2010). The interdisciplinary nature of stakeholder theory has engendered widespread application in business, management, finance, accounting, marketing, and corporate decision making geared towards sustainable and ethical practices (Parmar et al., 2010). Stakeholder theory is also used in sustainable supply chain management research to understand the interconnections among multiple actors in the supply chain (Touboulic & Walker, 2015a).

Various authors have applied the stakeholder theory propositions in the field of sustainable supply chain management. Park-Poaps and Rees (2010) used the stakeholder model for investigating stakeholder forces in supply chain orientation of the apparel and footwear sector in the United States. Mariadoss, Chi, Tansuhaj, and Pomirleanu (2016) used the stakeholder theory lenses to examine the link between the orientations of firms and their sustainable supply chain practices. Cavazos, Patel, and Wales (2012) in their study based on the stakeholder lens demonstrated stakeholder integration could mitigate environmental effects on buyer and supply networks.

In conclusion, stakeholder theory brings to bear the considerations of a firm's internal and external stakeholders (Freeman, 1984). Stakeholder theory proposes that a

firms' value creation should include ethics and economic considerations (Freeman et al., 2004). In addition, stakeholder theory involves the coordination of organizational activities in a complex and dynamic environment (Freeman, 1984). The use of stakeholder theory for this study ties into the concept of the sustainability phenomenon under investigation that involves economic, social, and environmental considerations by organizations in their supply chains. Fundamentally, sustainability is integrative and relates to stakeholder theory in highlighting the effects of the supply chain on all stakeholders (Montabon et al., 2016). This holistic consideration of all stakes in relation to social, environmental, and economic aspects underscored the stakeholder philosophy and provided the basis for the central research question of this study to explore the experiences of supply chain practitioners in driving sustainability.

Conceptual Framework

A conceptual framework is a foundational source of reflexive thoughts and actions throughout the research process (Ravitch & Carl, 2016). In other words, the conceptual framework is like the floorplan of a house that contains the details of the structure of the study, which includes the logical flow of concepts that convey the relationships of the different elements in the study (Grant & Osanloo, 2014). The conceptual frameworks for this study are Carter and Rogers's (2008) and Gupta et al.'s (2013) three-dimensional framework for sustainable supply chain management.

Carter and Rogers Sustainable Supply Chain Management Framework

Carter and Rogers's (2008) conceptual framework for sustainable supply chain management involves the triple bottom line concepts that include economic, social, and

environmental. The supporting facets are risk management, transparency, strategy, and culture (Carter & Rogers, 2008). The underpinning philosophy behind the model is that the four supporting facets vis-a-vis risk management, transparency, strategy, and culture make up the overall organizational levers for transparently integrating, coordinating, and collaborating with stakeholders for sustainability performance and long-term benefits.

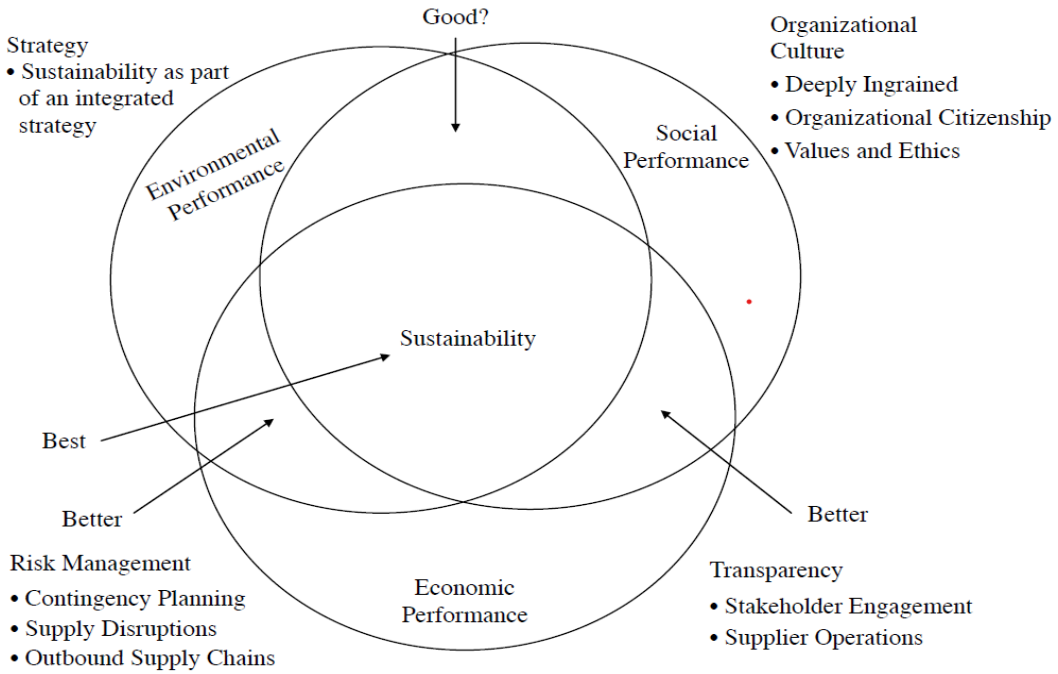

Figure 1. Sustainable supply chain management framework. From "A framework of Sustainable Supply Chain Management: Moving Toward New Theory," by C. R. Carter and D. S. Rogers, 2008, *International Journal of Physical Distribution & Logistics Management*, *38*(5), 360-387. Copyright 2008 by Emerald Group Publishing Limited Reprinted with permission.

Sustainability factors include economic performance (profitability, value creation, and competitive advantages of firms for long-term survival), social performance (public safety, workplace conditions, fairness, community development, and overall corporate citizenship) (Carter & Rogers, 2008). Environmental performance could be waste reduction, pollution reduction, natural resources conservation and renewable practices

that involves package reduction, logistics optimization, and energy efficiency (Carter & Rogers, 2008).

Risk management encompasses financial, production, supply disruptions, environmental, and employee and public safety risks to avoid unpleasant outcomes while strategy involves integrated and aligned sustainability strategy with core business strategy for cohesive operations and overall sustainability performance (Carter & Rogers, 2008). Culture comprises of organizational values and ethics at the center of organizational purpose to be good citizens and driving sustainability practices in their operations while transparency requires openness in the engagement of stakeholders and information sharing (Carter & Rogers, 2008). Every supply chain partner and broader societal and environmental stakeholder directly and indirectly impacted should be openly and honestly engaged.

Morgan, Tokman, Richey, and Defee (2018) used Carter & Rogers (2008) sustainable supply chain management framework in conceptualizing commitment in supply chain management resources allocation by supply chain actors in driving sustainability goals. In proposing inclusivity as a factor for sustainable evaluation and verification in supply chains, Gualandris et al. (2015) applied the aspect of transparency in Carter and Rogers's framework. In the same vein, Kumar and Rahman (2015) used Carter & Rogers's framework for developing an integrated framework for sustainability adoption by firms.

These concepts, as shown in Figure 1, are consistent across the literature on sustainable supply chain management (Carter & Rogers, 2008). These concepts are not

mutually exclusive as they are interwoven (Carter & Rogers, 2008). As such, sustainable performance in terms of economic, social, and environmental factors could be achieved through the systematic, transparent, and strategic management of risks and fostering of cultural mechanisms for good citizenship. From a progressive perspective, the continuous interactions among these factors in organizations could lead to true sustainability (Yun, Yalcin, Hales, & Kwon, 2018). This framework and the related concepts were very relevant and lent credence to the qualitative approach of this study in shaping the instruments for exploring the experiences of supply chain practitioners regarding sustainable supply chain management in Nigeria.

Gupta, Abidi, and Bandyopadhayay Three-dimensional Framework

Gupta et al.'s (2013) framework involves three dimensions that include supply chain actors vis-à-vis supplier, manufacturer, distributor, retailer, and the customer; strategic, tactical, and operational management functions; and innovation, environmental, and social sustainability goals. The notion of the three-pronged framework is that the management of the supply chain actors across all management functions will engender sustainability.

The management of all actors in the supply chain entails the strategic long-term planning surrounding technological, capital investment, network design, location, and performance measurement decisions (Gupta et al., 2013). Tactical management involves medium-term decisions and plans related to capacity utilization, inventory management, length of chain, cycle time, and days of supply (Gupta et al., 2013). Operational

management covers the short-term detailed planning related to costs, assets, reliability measurements, responsiveness, and agility (Gupta et al., 2013).

The concepts in the framework as shown in Figure 2 reflect an integrative and systematic synthesis of various conceptual perspectives in the sustainable supply chain management literature (Gupta et al., 2013). The multi-dimensions of Gupta et al.'s (2013) framework proposes that the effective and efficient sustainable supply chains of firms could be achieved with the strategic, tactical, and operational management of the various actors in the supply chain vis-à-vis supplier, manufacturer, distributor, retailer, and the customer. Also, achieving sustainability performance in supply chains could be driven by the effective strategic, tactical, and operational management of innovation, environmental, and social dimensions of the firm (Gupta et al., 2013).

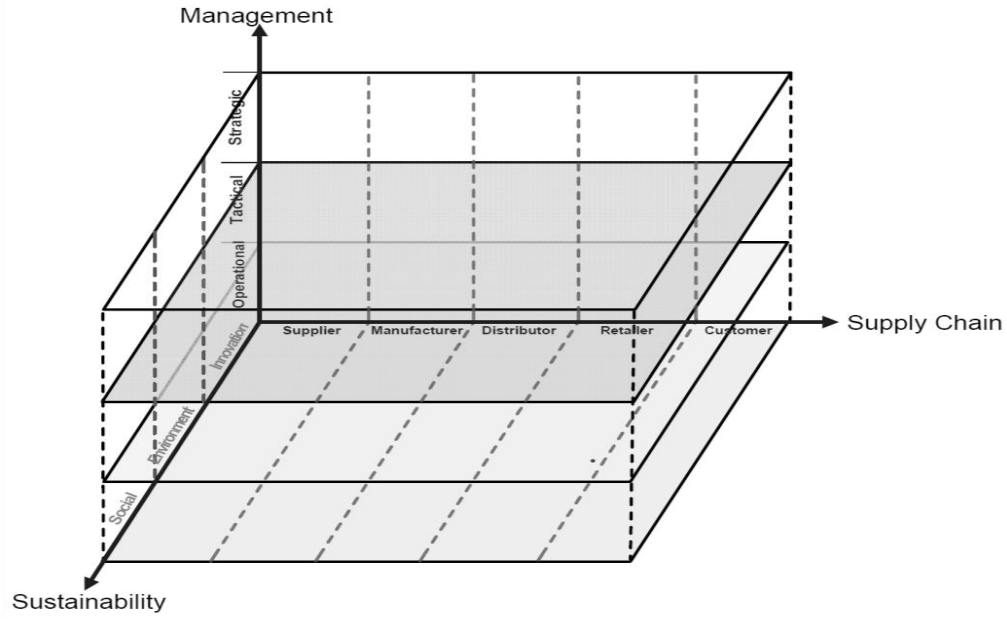

Figure 2. Three-dimensional sustainable supply chain management framework. From "Supply Chain Management: A Three-dimensional Framework," by V. Gupta, N. Abdi and A. Bandyopadhayay, 2013, *Journal of Management Research*, *5*(4), 76-97. Copyright 2013 by Gupta, Abdi, and Bandyopadhayay. Reprinted with permission.

Gupta et al.'s (2013) three-dimensional framework has not been used in previous studies in the supply chain field. Notwithstanding, the concepts of the framework provide a valuable foundation for this study. The framework will benefit this study in terms of the holistic and integrative propositions of the effectiveness of managing supply chain actors and sustainability dimensions. Most importantly, the concepts in the framework provided a basis for the development of interview questions consistent in understanding the experiences and perspectives of supply chain practitioners in the consumer goods manufacturing sector in Nigeria.

Summary

Carter and Rogers's (2008) sustainable supply chain management framework and Gupta et al.'s (2013) three-dimensional framework are important in understanding the integrated and interrelated aspects of sustainability and supply chain management. Firms become optimal at the intersection of the economic, social, and environmental frame (Carter & Rogers, 2008). Likewise, general systems and stakeholder theories provide the broad lenses for holistically assessing the complexities of managing sustainable supply chains.

Sustainability in the supply chain involves the management of environmental, social, and economic performance strategically and transparently, driven by organizational culture and risk management (Carter & Rogers, 2008). The effective management of supply chain actors at the strategic, tactical, and operational levels through planning and thinking along with innovation, environmental, and social dimensions will engender efficient and effective supply chains that are sustainable (Gupta

et al., 2013). Supply chain planning drives decision making at the strategic, tactical, operational levels (Boukherroub, Ruiz, Guinet, & Fondrevelle, 2015).

Stakeholder and systems theories are important lenses to explore and understand how firms engage all stakeholders holistically and integrate their operations. The role of stakeholders is central to sustainability and supply chain management (Meixell & Luoma, 2015). Stakeholders are vital to sustainable supply chain management (Beske & Seuring, 2014). Thus, a stakeholder view is essential for effectively assessing sustainability performance as it relates to the different stakes in the system (Tseng et al., 2015). Improving sustainability performance requires a whole systems contextual approach and considerations of all stakes across economic, social, and environmental levels (Zhang, Shah, Wassick, Helling, & Van Egerschot, 2014). A holistic approach to the dimensions of sustainability in supply chains could enhance decision making at the strategic, tactical, and operational levels of firms (Galal & Moneim, 2016). Overall, these frameworks underscore the tradeoff among aspects of sustainability and supporting facets for overall sustainability performance (Pereseina et al., 2014).

Literature Review

The body of literature on sustainable supply chain management is replete with seminal and contemporary works that addressed concepts in supply chain, sustainability, and supply chain sustainability. Various authors have done their studies using quantitative, qualitative, and mixed method approaches to exploring the topic of sustainable supply chain management in different economic contexts and across various industries. Researchers have made attempts to conceptualize frameworks for the

development of theories in the field. In this literature review section, the focus was on summarizing and synthesizing previous works on sustainable supply chain management related to the key concepts consistent with the topic, approach, research question, and goals of this study.

Supply Chain Management Research

There have been various perspectives and methodological approaches to the sustainable supply chain management topic. A methodological review related to a study is important to understand what obtains in the field and how to advance research in the field building upon or using different methods (Brandenburg et al., 2014). The way various authors have conceptualized and framed sustainable supply chain management has resulted in the multiplicity of research findings and implications (Turker & Altuntas, 2014).

The literature on the topic of sustainable supply chain management has provided meaningful insights. Various authors have continued to examine sustainability in supply chains and the ramifications for sustainability performance (Mariadoss et al., 2016). The empirical examination cuts across case studies, field research, quantitative modeling, conceptual modeling, surveys, and theory-driven studies (Brandenburg et al., 2014; Rajeev et al., 2017). Other studies have focused on the theoretical, conceptual, and literature review classifications (Rajeev et al., 2017; Sitek & Wikarek, 2015). Qualitative research into sustainable supply chain management field is on the ascendance (Ansari & Kant, 2017) and provides in-depth contextual insights into phenomena (Denzin & Lincoln, 2013; Yin, 2016).

The use of qualitative approaches in sustainable supply chain management research has been well documented. Using a case study, Varsei & Polyakovskiy (2017) examined sustainable supply chain management in the wine industry in Australia to develop strategies and proposed a model for innovative business solutions in driving sustainability practices. Similarly, Busse, Schleper, Niu, and Wagner (2016) using an exploratory case study examined the contextual barriers firms experience in driving sustainability in their procurement processes and how to mitigate such barriers. In the same vein, Sajjad, Eweje, and Tappin (2015) conducted an exploratory case study of the enablers and barriers to sustainable supply chain management in New Zealand.

The understanding of the barriers, enablers, and drivers by supply chain practitioners are vital for enhancing sustainability practices in supply chains. Further, Foerstl, Azadegan, Leppelt, and Hartmann (2015) in their case study research explored how first-tier suppliers of firms commit to driving sustainability in their business practices as key players in the supply chain as well as the contextual factors that motivate the integration of upstream and downstream functions. Despite the insights provided in these studies, the authors approached the inquiries from the context of developed economies, consistent with the gap in the literature calling for the conduct of more studies in nondeveloped contexts.

Dubey et al. (2017b) used a systematic literature review and total interpretive structural modeling to explore sustainable supply chain management drivers and their interrelationships. The systems perspective allows for a holistic view to aid effective problem-solving and decision making within the system for value creation (Dubey et al.,

2017b). Dubey et al. (2017b) noted that institutional pressures (consumers, legislation, regulatory agencies) and values and ethics of the society (moral responsibility and business ethics) underscore other sustainability drivers of organizations. Institutional pressures positively influence sustainable supply chain practices (Lu, Zhao, Xu, & Shen, 2018).

Given the increasing demand for information in driving supply chain sustainability by firms, Fiorini and Jabbour (2017) conducted a structured literature review to assess the level of research on information systems and sustainable supply chain management to uncover managerial insights and suggest areas for future research. Similarly, Han, Wang, and Naim (2017) explored how information technology flexibility could drive supply chain activities and found direct and indirect effects on firm performance. Overall, information systems are vital to managing decision making and information flow in driving sustainable supply chains practices (Fiorini & Jabbour, 2017).

Scholars have also approached research in sustainable supply chain management from the quantitative perspective. Ahmad, Rezaei, Tavasszy, and de Brito (2016) in their study using the quantitative approach explored how the internal contextual factors of oil and gas firms affected sustainable supply chain management practices and strategies. This study fits within the broader scope of contextual factors that affect sustainability practices in firms but was limited to the oil and gas sector in regions where data were collected.

Mariadoss et al.'s (2016) study was based on a correlational design in examining the relationship of firms' orientation on their supply chain activities. The weakness in this study is the lack of in-depth contextual data related to firms' orientation that the use of surveys may not fully capture. Similarly, Brandenburg et al. (2014) examined research into sustainability supply chain management using the quantitively modeling approach to inform future research. However, Brandenburg et al. (2014) limited their scope to forward logistics, which ignored the other aspect of reverse logistics that is also critical in sustainable supply chain management.

Unlike forward logistics that involves the one way production of materials and goods sold to customers (Govindan, Soleimani, & Kannan, 2015; Lee, Chung, Lee, & Gen, 2015), reverse logistics encompasses the processes of firms and its partners to recover used or damaged products from end consumers for further reuse to create life-cycle value for sustainable benefits (Agrawal, Singh, & Murtaza, 2015; Genovese, Acquaye, Figueroa, & Koh, 2017; Sigala, 2014). Reverse logistics is a much more robust and expensive system for firms to run and manage (Lee et al., 2015). Nevertheless, organizations try to integrate both forward and reverse logistics to minimize costs and environmental impacts in their supply chains (Dubey, Gunasekaran, & Childe, 2015; Govindan & Soleimani, 2017).

Seuring (2013) examined the literature on sustainability in supply chains with a focus on quantitative modeling in forward supply chains. The goal of such investigations was based on the premise that researchers had conducted fewer studies on sustainable supply chain using quantitative modeling in forward supply chains (Brandenburg et al.,

2014; Seuring, 2013). Most quantitative modeling has been based on the trade-off and win-win-categories in terms of the economic and social dimensions (Seuring, 2013). This focus on individual elements diminishes the value of striking a balance among the three competing dimensions and stakes of sustainability (Taticchi, Garengo, Nudurupati, Tonelli, & Pasqualino, 2015). The position is that more studies related to reverse logistics have been carried out using quantitative modeling and limited sustainability dimensions and thus, the need for newer quantitative modeling in the forward supply chains for theory building and managerial insights.

In continuing the modeling trend, Boukherroub et al. (2015) examined how practitioners could integrate sustainability principles into supply chain planning models. The goals were to allow for optimization and performance measurements in sustainable supply chain planning. In the same vein, Zhang et al. (2014) proposed a multi-objective framework for planning and optimizing supply chain operations in balancing the sustainability indicators. These multiple-objective optimization solutions are consistent with Zhang, Lee, Wu, & Choy's (2016) innovative model for efficient distribution channels.

Govindan, Jafarian, Khodaverdi, and Devika (2014) looked at a multiple-objective optimization model for minimizing costs and environmental impacts of supply chain activities in the food industry. Validi, Bhattacharya, and Byrne (2014) also addressed the aspect of a multiple-objective optimization model for sustainable distribution in supply chains. The consensus among the findings of these studies into multi-objective models was that such models provided for robust optimization solutions,

with Zhang et al.'s (2016) model specifically looking at Omni-channels despite inherent challenges. Nevertheless, these studies were limited to the developed economy context and from the forward logistics supply chain perspective.

Although quantitative modeling in sustainable supply chain management research is gaining traction, researchers have also employed conceptual modeling (Brandenburg et al., 2014). Turker and Altuntas, (2014) conceptually assessed the sustainability practices of fast fashion companies in Europe and asserted that firms take sustainability in their supply chains seriously and use codes of conduct and compliance monitoring to get their supply chain partners to adhere to and minimize reputation risks.

Chardine-Baumann and Botta-Genoulaz (2014) conceptually examined supply chain activities regarding the sustainability dimensions and proposed a framework for characterizing and evaluating practices for effective performance. The weakness of Chardine-Baumann and Botta-Genoulaz's (2014) and Turker and Altuntas, (2014) studies was the use of company documents for the analysis with the potential for companies to self-report favorable practices that may not be a true reflection of their actions and the lack of generalizability and applicability of the propositions to other contexts.

Gualandris et al. (2015) in their conceptual study highlighted the need for tailoring monitoring systems to stakeholders' requirements in evaluating information flow in the sustainable supply chain management processes for accountability. Such accountability monitoring systems can be designed collectively by focal firms and other key stakeholders (Gualandris et al., 2015). These systems ensure a broader and accurate

assessment of sustainable supply chain activities by partners for effectiveness and competitive advantages.

Giannakis and Papadopoulos (2016) conducted a mixed-method study into supply chain sustainability with a focus on risk management and the argument that an integrated approach to risk management in sustainable supply chains is important for effective strategies. Sustainability risks cuts across the eroding of ecosystems and societal values as well as irresponsible management (Giannakis & Papadopoulos, 2016). Therefore, effective risks strategies must be in place to mitigate attendant risks.

Reefke and Sundaram (2017) using the Delphi approach identified central themes across planning, collaboration, execution, and coordination categories that are relevant to sustainable supply chain management research and practice for theory building and managerial insights. That said, the categorizations of supply chain sustainability risks and central themes by Giannakis and Papadopoulos (2016) and Reefke and Sundaram (2017) cannot be generalized given that data were obtained from two developed European contexts as well as perspectives from European and North American experts.

Notably from these studies, the authors have approached sustainable supply chain management and the various strands from the Western prism with more structured processes and institutions. As Touboulic and Ejodame (2015) pointed out, there is a disconnect between sustainable supply chain management theory and practice in the non-Western context given the hegemonic Western perspectives approach to research in the field. Practitioners in developing and emerging economies perceive and face different implementation challenges to sustainability in their supply chains (see Pereseina et al.,

2014; Silvestre, 2015; Touboulic & Ejodame, 2015). Therefore, further exploration of sustainable supply chain management in developing and emerging economies could be meaningful.

Sustainable Supply Chain Management in Developing and Emerging Economies

The exploration of sustainable supply chain management in developing and emerging economies is vital to improving implementation. These nondeveloped economies perceive, and experience implementation challenges related to sustainability in their supply chains (Pereseina et al., 2014; Silvestre, 2015; Touboulic & Ejodame, 2015). The interest in sustainable supply chain management in nondeveloped economies has risen given the social impacts of unsustainable supply chain practices (Huq et al., 2016).

Sustainability in supply chains is still maturing in developing economies (Dubey et al., 2015). Studies have also addressed how internal and contextual factors affect the implementation of sustainable supply chain management practices. Ahmad et al. (2016) examined challenges companies face in implementing sustainable supply chain management practices with a focus on internal factors and functional areas affecting sustainability strategies.

Although Ahmad et al. (2016) provided valuable insights from their findings on how oil and gas companies can create synergies for the effective implementation of sustainable supply chain management practices, the scope of the study was limited to the European, Asian, and American contexts. As a result, the applicability of the findings

and propositions in the developing African context that also encounter challenges in implementing sustainable supply chain management practices is limited.

Mathivathanan et al. (2018) examined sustainable supply chain management implementation regarding the interrelations among practices in the automotive industry of an emerging economy, India. They concluded that management commitment is the most significant factor in implementing sustainable supply chain management practices. Mani et al. (2018) explored the social aspects of sustainability in manufacturing industries in India and the impact on performance. Although the findings from these studies are limited to the Indian economy, the authors highlighted critical points in terms of the dynamics and interrelations of supply chain management practices in nondeveloped contexts and their effects on the performances of firms.

Pereseina et al. (2014) examined sustainable supply chain management challenges and conflicts using a company as a case study with operational offices located in an emerging country, China. They found that the challenges in implementing sustainable supply chain management practices include the focus on short-term economic gains, the organizational culture that trivializes sustainability, lack of stakeholder commitment, and weak governmental regulations. Government support is important in providing infrastructure, policies, and incentives that could enable sustainability implementation in supply chains (Mangla et al., 2018). These observations fit into the broader narrative of the challenges in implementing sustainability principles in supply chains in developing and emerging economies, but the generalizability of all the factors to all developing and emerging countries is an issue for debate.

Similarly, Silvestre (2015) examined sustainable supply chain management using a case study in Brazil to provide understanding about the challenges related to practice in developing end emerging economies as well as opportunities for research and practice. One of the central themes of the findings in consonant with Pereseina et al. (2014) was that countries in developing and emerging economies experience challenges in implementing sustainable supply chain management due to environmental turbulence, institutional voids, market uncertainty, corruption, poor logistics infrastructure, social problems, and informal business structures. Ojo et al. (2015) examined sustainability in the supply chain in Nigeria with a focus on environmental performance. The focus was on the environmental aspect of sustainability in the construction industry. They concluded from their findings that implementation is the major problem in driving sustainable supply chain management.

Galal and Moneim (2016) in response to the limited research on sustainability that included the three dimensions of social, environmental, and economic considerations, developed a holistic framework for improving sustainable supply chain management in developing countries. The framework is valuable in its flexibility and dimensions for assessing the sustainability performance of all actors in a supply chain to identify areas for improvement for effective sustainability performance of the supply chain. However, further validation of the framework is necessary to assess the efficacy of the indicators across multiple industries in different developing countries.

Esfahbodi et al. (2016) developed and tested a framework for evaluating sustainable supply chain management performance in two developing economies to

determine the effects of sustainability adoption on cost performance. This study is similar to the cross-country examination of sustainable supply chain management by Pereseina et al. (2014). The most striking aspect of the finding is that the adoption of sustainable supply chain management may not lead to improved cost performances against the backdrop of studies that have highlighted possible financial gains. Nonetheless, the social dimension of sustainability was not part of the proposed framework, which could potentially moderate the effects on cost performances.

Shitu and Mohd-Nor (2017) conducted an exploratory processual case study of the Nigerian shea butter supply chain to explore how sustainability standards are implemented. They concluded from their findings that contextual factors affected the implementation of sustainability in supply chains. Despite the challenges developing and emerging economies face regarding implementing social and environmental practices in their supply chains, the awareness about such sustainability issues and influence are also associated problems with stakeholders (Touboulic & Ejodame, 2015). That is, stakeholders may not be particularly aware of the social and environmental issues in their supply chains, and even if they are aware, the power to effect changes might be weak.

An important point to note is that the insights from these studies about countries under the developing and emerging categories may not be generalizable to every nondeveloped context. The perceptions and implementation challenges of sustainable supply chain management could vary from country to country and have varied levels of intensity (see Pereseina et al., 2014; Silvestre, 2015; Touboulic & Ejodame, 2015). The

sustainable supply chain management challenges experienced in developing and emerging economies are greater than in developed economies (Silvestre, 2015).

Therefore, exploring the experiences of supply chain practitioners in the consumer goods manufacturing sector of a developing economy, Nigeria was consistent with the existing situation about the need for further studies. This exploration is important to understand the complex realities related to sustainable supply chain management in nondeveloped economies given the attendant challenges they face (Silvestre, 2015; Touboulic & Ejodame, 2015). This understanding could help to improve sustainable supply chain management practices in Nigeria.

Consumer Goods Manufacturing Industry in Nigeria

Nigeria is one of the major economic and political players in the continent of Africa. This West African country exports the most crude oil in Africa, possesses the largest natural gas reserves in the continent, constitutes about 47% of the population in the Western region of the continent and has an approximate population of 184 million people (World Bank, 2017). Nigeria as one of the developing economies in Africa achieved a 0.8% economic growth in 2017 (International Monetary Fund, 2018).

The manufacturing sector contributed 14.82% to the national gross domestic product (GDP) in 2017 (National Bureau of Statistics, 2018). The consumer goods industry in Nigeria produces durable and non-durable consumables for the final consumers (The Nigerian Stock Exchange, n.d.). Production includes food items, household items, personal products, textile, apparel, tobacco, toys, electronics, automobile, and parts (The Nigerian Stock Exchange, n.d.). The consumption of these

goods by final consumers could hit over 1 trillion dollars by 2030 (Leke et al., 2014). The consumer goods sector financial performance rose 21.39% from the previous year at the end of the third quarter in 2017 (The Nigerian Stock Exchange, 2017).

The consumer goods manufacturing sector in Nigeria is comprised of indigenous and global manufacturers that include major brands such as Dangote Group, UAC Foods, Nigerian Breweries, Nestle, Procter & Gamble, and Unilever (PricewaterhouseCoopers, 2016). Despite the infrastructural and capacity challenges affecting the supply chains as well as bureaucratic agencies (PricewaterhouseCoopers, 2016), the sector continues to rise to the challenges coupled with increased investments. In recent months, companies such as Nestle, and Unilever have invested millions of dollars in expanding production (Oxford Business Group, 2018).

Historical and Contemporary Overview

The topic of sustainable supply chain management is a focal point for academics and practitioners because of the strategic advantages sustainability practices could afford organizations and countries alike (Esfahbodi et al., 2016; Lam, 2015; Mathivathanan et al., 2018; Silvestre, 2015). As Touboulic and Walker (2015a) noted, there has been a surge in empirical research into sustainable supply chain management since 2008, with 65% of these publications between 2010 and 2013. This trend has continued within the last 5 years (Ansari & Kant, 2017; Dubey, Gunasekaran, Childe, Papadopoulos, & Fosso Wamba, 2017a; Rajeev et al., 2017).

The sustainable supply chain management discourse brings to bear the integrative aspects of the concept. The definition of sustainable supply chain management concept is

situated within its components of supply chain and sustainability (Chardine-Baumann & Botta-Genoulaz, 2014; Turker & Altuntas, 2014). The sustainable supply chain concept captures supply chain activities and sustainability principles of social, economic, and environmental considerations. Thus, the integration of supply chain activities and sustainable development dimensions as operationalized by John Elkington is what sustainable supply chain management is all about (Ahi & Searcy, 2013; Seuring & Muller, 2008). There is value in describing what constitutes the parts of the phenomenon of sustainable supply chain management.

Supply Chain Management. The concept of supply chain management that captures the movement of organizational resources is not new. The use of the supply chain management concept began in the early 1980s by resources and asset management consultants in conceptualizing the interrelationships among internal and external functions and logistics for coherence (Asgari, Nikbakhsh, Hill, & Farahani, 2016; Ellram & Cooper, 2014). The earliest description of supply chain management was about material and information flow management (Ellram & Cooper, 2014).

Supply chain management encompasses operational and tactical functions in an organization for the systematic and strategic coordination of all actors within and outside the logistics channel for effective performance and the benefit of all actors (Mentzer et al., 2015). Various authors have viewed supply chain management as a process, discipline, philosophy, governance structure, and function (Ellram & Cooper, 2014; Mentzer et al., 2015). The process view of supply chain management is essential for understanding and enhancing organizational efficiency along the lines of cross-

functional, interorganizational, collaborative, and sustainability activities (Ellram & Cooper, 2014).

Supply chain management processes involve the management of customer relationship, supplier relationship, customer service, demand, order fulfillment, manufacturing flow, product development, commercialization, and returns (Lambert & Enz, 2017). Based on the supply chain literature, Reefke and Sundaram (2017) categorized the major activities in the supply chain to include planning for design, production, distribution, supply, forward and reverse logistics at the strategic, tactical, and operational levels. The execution of the plans and management of the processes; coordination and control of the processes across functions and organizational boundaries; and collaboration for sustained mutual relationships for competitive advantages are also central to supply chain activities (Reefke & Sundaram, 2017).

These processes and activities capture the integrated management of relationships and coordination of functions in supply chains. Supply chain management is central to the movement and exchange of materials and energy in society (Chardine-Baumann & Botta-Genoulaz, 2014). Thus, the minimization of costs in ensuring the flow of goods, services, resources, and information becomes a challenge (Sitek & Wikarek, 2015). This challenge stems from the multi and inter-firm coordination and collaboration needed for effective supply chain performance. Collaboration is a central aspect of organizational supply chain orientation for sustainability performance (Jadhav, Orr, & Malik, 2018).

Globalization and the complex supply chain dynamics has informed new managerial perspectives for firms to be efficient and gain a competitive edge, making

performance measurement systems relevant (Asgari et al., 2016; Avittathur & Jayaram, 2016; Balfaqih, Nopiah, Saibani, & Al-Nory, 2016). The measurement systems allow for the appropriate variables to be evaluated in time for effective decision making (Balfaqih et al., 2016). Such variables could encompass different tasks and processes across partner firms in the supply chain (Maestrini, Luzzini, Maccarrone, & Caniato, 2016).

Supply chain planning is no longer about cost efficiency, but the incorporation of economic and social dimensions in response to concerns from stakeholders (Boukherroub et al., 2015; Zhang et al., 2014). Supply chain management opens the path for organizations to adopt sustainability principles in their operations and decision-making processes and thus, an important aspect of business objectives (Halldórsson, 2019; Meixell & Luoma, 2015). This path is significant given the holistic consideration of supply chain activities for effective performance measurement and decision making (Balfaqih et al., 2016).

Sustainability. Sustainability originated in the ecological field about conserving the ecosystem (Jabareen, 2008). Sustainability was operationalized using the triple bottom line to capture economic, social, and environmental elements in an integrated way for sustainable development (Elkington, 2004), which is the most used conceptualization of sustainability in the literature today. The triple bottom line for firms is about tying social and environmental responsibilities with long-term financial sustainability (Schulz & Flanigan, 2016). In other words, the inclusion of protection and care for the environment as well as the wellbeing of people and society to the profit fundamentals of businesses (Kuhlman & Farrington, 2010).

The Brundtland report to the United Nations in 1987 on sustainable development popularized the sustainability debate (Kuhlman & Farrington, 2010). The definition of sustainable development is about attending to the needs of those present while protecting the needs and capacity of future generations (Lu et al., 2016). Sustainable development involves the putting together of economic, social, and environmental factors into organizational design, decision making, and operations (Azadi et al., 2015; Formentini & Taticchi, 2016). Sustainable development emphasizes the interdependence among the triple-bottom-line (Joyce & Paquin, 2016; Sitek & Wikarek, 2015).

Sustainability involves the deliberate consideration of people, planet, and profit for the well-being of those present and yet to come (intraorganizational and intergenerational balancing of the three Ps) (Geissdoerfer, Savaget, Bocken, & Hultink, 2017; Kuhlman & Farrington, 2010). The sustainability concept provides the lens for understanding the integration of economic, social, and environmental factors into organizational operations (Seuring, 2013) and continues to be a viable and essential aspect for scholars and practitioners in the discipline (Genovese et al., 2017). Scholars have ascribed different meanings to sustainability given the various strands and criticism (Johnston, Everard, Santillo, & Robert, 2007; Kuhlman & Farrington, 2010; Ramsey, 2015). Nevertheless, Ramsey (2015) argued that the focus should be on concrete sustainable actions than trying to present a clear definition of sustainability.

Sustainable Supply Chain Management. Sustainable supply chain management at the fundamental level involves supply chain practices that incorporate the three dimensions of sustainability for long-term economic growth (Yang, Movahedipour, Zeng,

Xiaoguang, & Wang, 2017). Sustainable supply chain management conceptualizes the notion that firms should be proactive in their actions by considering environmental and social concerns in addition to their economic interests related to their supply chain activities (Ahmad et al., 2016; Azadi et al., 2015). Sustainable supply chain management guards against activities in the value chains of the operations of firms that could exacerbate negative environmental and social impacts (Karthik, 2015; Turker & Altuntas, 2014).

Pagell and Shevchenko (2014) conceptualized sustainable supply chain management as a process to achieve true sustainability by furthering economic viability and remaining faithful to social and environmental systems through synergistic designs, organization, coordination, and control. In the same vein, Touboulic and Walker (2016) characterized sustainable supply chain management as operational, transformational, and relational. Operational is about value creation for firms and partners through the coordination of material and information flow; transformational involves a fundamental shift from economic concerns alone to include social and environmental issues; and relational about relationship driven activities (Touboulic & Walker, 2016). Touboulic and Walker's (2016) characterization of sustainable supply chain management is consistent with what prominent authors in the field have conceptualized.

Sustainable supply chain management involves the exchange of information across the various roles and with partners. Seuring and Muller (2008) conceptualized a popular definition of sustainable supply chain management in the discipline. Using basic terms, Seuring and Muller (2008) defined sustainable supply chain management as the

management and collaboration of supply chain activities and partners that include the flow of material, information, and capital with sustainable developments goals of economic, social, and environmental for stakeholder satisfaction. In other words, the management of supply chain practices and the triple-bottom-line aspects of economic, social, and environmental dimensions (Govindan et al., 2014).

This definition highlights essential concepts such as collaboration and information flow. Collaboration increases visibility, trust, and better relationship management across supply chain partners to mitigate challenges and improve sustainability performance (Reefke & Sundaram, 2017). The notion of collaboration fits within the conceptualization of sustainable supply chain management as a process for managing the demand and supply cycle (Dubey et al., 2017a). Collaboration among supply chain partners could also involve the joint development of products, processes, and technology for improved communication among members of the supply chain channel (Beske, Land, & Seuring, 2014; Gualandris & Kalchschmidt, 2014; Khalid et al., 2015).

Collaboration and cooperation of supply chain partners are important for firms in taking advantage of competitive opportunities and minimizing risks (Ahmad et al., 2016; Busse, 2016). Through the collaboration of supply chain functions and partners, relationships are strengthened, which foster the environment for driving and meeting the demands for sustainability in supply chains (Ding, Zhao, An, Xu, & Liu, 2015; Reefke & Sundaram, 2017). The cooperation among focal firms and their supply chain partners is central to strengthening relationships and moving sustainable products that customers desire across the network (Cheung & Rowlinson, 2011; Tseng et al., 2015).

Collaboration is a vital element of effective sustainable supply chain management (Silvestre, 2015; Touboulic & Walker, 2015b). Collaboration among supply chain partners and stakeholders could help to achieve sustainability goals (Galal & Moneim, 2016; Grekova, Calantone, Bremmers, Trienekens, & Omta, 2016). Collaboration is essential because the act goes beyond the coordination of internal processes and functions to cross-organizational boundaries necessary for driving sustainability across the full spectrum of the supply chain (Hsueh, 2015; Reefke & Sundaram, 2017). Supply chain firms could integrate their capabilities and strategies to enhance collaboration for improved sustainability performance in their supply chains (Silvestre, 2015).

Altogether, interorganizational collaboration among firms increases the possibility for capacity building needed for implementing sustainable supply chain management practices (Esfahbodi et al., 2016). As Lu et al., (2016) found in their study, inter and intra-organizational collaboration enhances social, environmental, and economic performance for firms given the collective responsibility and joint ownership processes. Therefore, information sharing becomes imperative for collaborating firms to engender sustainability performance.

Information is a central ingredient for organizational survival and good governance in the exchange of meaningful ideas for effective management and efficient decision making (Patón-Romero, Baldassarre, Piattini, & Guzmán, 2017). There is an increased demand for information in driving sustainability in supply chains (Fiorini & Jabbour, 2017). As firms pursue sustainability practices in their supply chains,

information systems become critical for the information exchanges among partners (Fiorini & Jabbour, 2017; Hu, Li, Chen, & Wang, 2014; Khor, Thurasamy, Ahmad, Halim, & May-Chiun, 2015). Altogether, information processing is at the heart of implementing sustainability across the supply chain (Busse, Meinlschmidt, & Foerstl, 2017).

Firms require rapid information flow to remain competitive and responsive to stakeholder demands through responsive order fulfillment and social responsibility carbon footprint monitoring (Hu et al., 2014). According to Fiorini and Jabbour (2017), information systems have a positive effect on the performances of firms vis-à-vis operational, financial, and environmental. Flexible information technology systems are essential to the management of the relationship interdependence across actors in the supply chain (Han et al., 2017). These positive performances are important in meeting the needs of stakeholders in the sustainability efforts.

There is growing interest in the technological platform, blockchain, for collaboration and improving supply chain and sustainability. The blockchain is a technology that can help firms manage their transactions between partners in an efficient, verifiable, and permanent manner (Iansiti & Lakhani, 2017). The technology is gaining attention in the logistics sector given the potential to increase supply chain visibility, efficiency, and enhance decision making (Commendatore, 2018). Blockchain technology also has the potential for improving sustainability in supply chains if adopted by firms for information sharing related to human rights and tracking environmental issues (Chow, 2018; Clancy, 2017).

Some firms are currently making efforts to leverage blockchain technology in driving sustainability in their operations. De Beers, a South African based diamond producer, in collaboration with other partners, implemented a pilot blockchain technology to track their diamond in the value chain and address the social issue of blood diamonds (De Beers, 2018). Similarly, Helzberg, a United States jeweler, is working with suppliers, manufacturers, and refiners to plan and implement a blockchain technology to track their diamond and gold (Roberts, 2018). Also, Swytch uses a blockchain platform to drive environmental sustainability by rewarding individuals and organizations with tokens (Swytch, 2018).

Amid information flow and collaboration among supply chain partners in driving sustainability, accountability is essential. As firms attempt to meet the increasing demands of stakeholders to be sustainable, they adopt evolving sustainable supply chain practices across their upstream and downstream networks, which opens up the need for tailored monitoring systems in alignment with stakeholders' needs (Gualandris et al., 2015). The evaluation of sustainable supply chain management practices enables organizations to uncover problems and opportunities for improvement (Ahmad et al., 2016). As such, the verification of information flowing in the system becomes imperative given the potential for false reporting by supply chain partners.

Monitoring systems in sustainable supply chains that ensure supply chain partners are adhering to contracts, codes of conducts, and regulatory standards, cuts across self-managed activities in the upstream and downstream operations of firms (Gualandris et al., 2015; Marshall, McCarthy, Heavey, & McGrath, 2015a). Such multi-dimensional

monitoring systems are vital to leveraging accountability in the supply chain for competitive advantages (Gualandris et al., 2015). The competitive advantages include risk avoidance (mitigating anticipated risks), efficiency (lower operating costs), and credibility (enhanced legitimacy) (Gualandris et al., 2015).

Scholars have addressed drivers of sustainable supply chain management practices in firms (Mariadoss et al., 2016; Yang et al., 2017). Drivers help to kickstart sustainable supply chain management practices (Kumar & Rahman, 2015). Multiple stakeholder demands from government, legislators, nongovernmental organizations, investors, and consumers drive the current sustainability operating landscape for organizations (Beske et al., 2014; Govindan et al., 2014; Gualandris et al., 2015). These drivers tend to be external to the firms. Internal factors play a role in driving sustainable supply chain practices such as employee pressures, culture, corporate strategy, and top management commitment (Dubey et al., 2017a; Dubey et al., 2017b). Altogether, sustainability pressures have engendered sustainable supply chain practices in organizations (Gualandris & Kalchschmidt, 2014).

Dubey et al. (2017b) based on literature review summarized the drivers of sustainability in supply chains as institutional (buyers, legislation, and regulatory agencies), internal (employees), social values and ethics (business ethics and moral responsibility), corporate strategy, and commitment (strategic, tactical, and operational decisions). Ahmad et al. (2016) noted that authors have examined and found internal factors such as culture, top leadership and management, and risk to influence sustainable supply chain practices.

According to Dubey et al. (2017b) strategic collaboration (shared information and costs), green (waste and energy reduction), continuous improvement (improved performance), and optimization (greenhouse gases, route efficiency) were identified as drivers of sustainability practices in supply chains. Other drivers include economic (long-term profitability), information technology (information flow), and environmental (carbon footprint, ecosystem conservation) considerations (Dubey et al., 2017b). Overall, stakeholders are the primary drivers for adopting sustainability (Varsei et al., 2014).

There are barriers and enablers to sustainable supply chain management. Such barriers include lack of resources, capacity, transparency, and knowledge (Ansari & Kant, 2017; Chkanikova & Mont, 2015; Kumar & Rahman, 2015). Other barriers include the lack of resources, top-management commitment, and government initiatives (Narayanan, Sridharan, & Ram Kumar, 2018). The financial implications of sustainability imply that firms with little capital outlay would find sustainability practices challenging and may focus on practices that require lower capital investments (Ahmad et al., 2016; Ansari & Kant, 2017). As such, the cost is the most significant barrier to sustainability in supply chains (Kumar & Rahman, 2015; Sajjad et al., 2015).

Enablers, unlike drivers, deal with factors that facilitate the implementation of sustainable supply chain management practices (Kumar & Rahman, 2015). This distinction between enablers and drivers is vivid using Meixell and Luoma's (2015) conceptual model of sustainability awareness, adoption, and implementation by companies based on stakeholder pressure. In other words, stakeholder pressures that fall under drivers could make firms become aware of sustainability issues in their supply

chain and adopt appropriate policies or goals. However, the implementation of sustainability practices that requires enablers goes beyond awareness and adoption to concrete actions in practice. Such an implementation requires enabling capabilities (Varsei et al., 2014).

Enablers such as collaboration, information sharing, monitoring, and capacity building help in implementing sustainable supply chain practices (Kumar & Rahman, 2015). Yang et al. (2017) found factors that facilitate the implementation of sustainability practices in the supply chain to include strategic planning, coordination, and collaboration with supply chain partners, monitoring, and measurement of sustainability practices for improvement. Key enablers include the commitment from top management and employees, strategic decision-making systems, information technology, the motivation of supply chain actors, and government support (Ansari & Kant, 2017; Kausar, Garg, & Luthra, 2017; Reefke & Sundaram, 2018; Sajjad et al., 2015). Government support is also a key enabler as well as top management support in the adoption of information technology and training of employees and partners (Mangla et al., 2018; Orji, 2019).

Justification of Sustainable Supply Chain Management Concept – The Holistic View

Researchers have mostly examined sustainable supply chain management from the environmental (green) perspective with less focus on the holistic aspects of sustainability (Brandenburg et al., 2014; Chardine-Baumann & Botta-Genoulaz, 2014; Dubey et al., 2017a; Eskandarpour, Dejax, Miemczyk, & Péton, 2015; Gopal & Thakkar, 2016; Marshall et al., 2015a; Seuring, 2013; Taticchi et al., 2015). Thus, further research

needs to consider an integrated approach to research on sustainability in supply chains that encompasses the social, economic, and environmental dimensions (Fiorini & Jabbour, 2017; Silvestre, 2015). Such holistic approaches could change the perspectives that the dimensions of sustainability are theoretical and lack practical relevance (Brandenburg et al., 2014).

Green supply chain management is a popular research area in the field. Green supply chain management research places primacy on the environmental and economic issues in the supply chain (Ahmad et al., 2016; Luthra, Garg, & Haleem, 2015). Green supply chain continues to receive interest from scholars with the focus on integrating environmental issues in the production and consumption operations of firms (Genovese et al., 2017; Govindan, Rajendran, Sarkis, & Murugesan, 2015; Jabbour & de Sousa Jabbour, 2016; Srivastava, 2007; Singh & Trivedi, 2016; Wong, Wong, & Boon-Itt, 2015). The goal of green supply chain management is to mitigate the negative impacts of supply chain practices on the environment.

Despite the lack of consensus definition of green supply chain management, the concept and practices are strategic for organizations in managing environmental issues for competitive advantages (Fahimnia et al., 2015; Ferreira, Jabbour, & de Sousa Jabbour, 2015). Green supply chain management practices can spur sustainability practices across an industry (Ojo, Mbowa, & Akinlabi, 2014). Environmental impacts involve indirect and direct human activities that cause changes in the natural environment and ecosystem (Chardine-Baumann & Botta-Genoulaz, 2014).

The level of carbon emissions in developing and emerging economies is alarming and thus, a problem (Yang et al., 2017). Longer transportation routes exacerbate greenhouse gas emissions that have negative impacts on the ecosystem and health of people and thus, the need the need for sustainability optimization of supply chain routes (Govindan et al., 2014; Jabbour, Neto, Gobbo Jr, de Souza Ribeiro, & de Sousa Jabbour, 2015; Zhang et al., 2016). Altogether, green supply chain management practices engender environmental protection and enhance operational performance (Dadhich, Genovese, Kumar, & Acquaye, 2015; de Sousa Jabbour, de Oliveira Frascareli, & Jabbour, 2015).

The social aspects of sustainability are also vital for organizational performance (Geng, Mansouri, & Aktas, 2017; Rajak & Vinodh, 2015; Reefke & Sundaram, 2017; Yawar & Seuring, 2015; Zorzini, Hendry, Huq, & Stevenson, 2015). The goal of sustainability in supply chains is not just about pursuing one aspect of sustainability dimensions such as environmental performance (Dubey et al., 2015; Huq & Stevenson, 2018; Rajak & Vinodh, 2015). Research into sustainability in supply chains should not be on just green but multidimensional to include social, and economic aspects (Zhang, Tse, Doherty, Li, & Akhtar, 2018). The social impact, which involves human activities that affects society regarding fairness and human rights, for example, are also essential considerations in the supply chain activities of firms.

Sustainable supply chain management broadens the responsibility of firms from the traditional reactive to proactive positions through waste reduction and social responsibility activities across their supply chains from raw materials to finished goods

(Tseng et al., 2015). Firms capture the goals of the social, environmental, and economic aspects of sustainability in the broader supply chain activities (Frostenson & Prenkert, 2015). Achieving true sustainability may require a shift from the reified instrumental logic of focus on profit based on stakeholder pressures to a value-laden normative stance towards care for people and the environment (Gold & Schleper, 2017). The idea is that firms as legitimate societal citizens should not use profit as a motive in their attempt to be responsive to the expectations of all stakeholders.

Pagell and Shevchenko (2014) echoed similar sentiments but conceptualized the instrumentality of firms as normative in putting profits at the center of decision making in supply chain sustainability. Gold and Schleper (2017) posited that the goal for true sustainability is to substitute stakeholder interests for economics at the center of sustainable supply chain management decisions. Despite the different assertions, the goal for true sustainability in supply chains is for firms to achieve a balance in addressing the stakes of both economic and non-economic stakeholders. Firms that find it difficult to manage external stakeholders and innovate would face challenges achieving true sustainability (Shevchenko, Lévesque, & Pagell, 2016). Proactive firms can learn to develop new technologies, map the full life cycle of products, and anticipate risks in effectively managing stakeholders (Beske & Seuring, 2014).

Achieving truly sustainable supply chains depends on supplier management. Sustainable supply chain management involves the internal practice of managing processes and external practices of supply management (Gualandris & Kalchschmidt, 2014). The external supply management involves managing the sustainability practices

of their suppliers (Gualandris & Kalchschmidt, 2014; Thorlakson et al., 2018). In managing and evaluating the performance of their suppliers, focal or buying firms use external standards developed by nongovernmental organizations and government agencies or internal standard developed by the firms along the lines of codes of conducts and supplier selection criteria (Chiarini, 2015; Thorlakson et al., 2018).

The processes of selecting and evaluating how suppliers perform across the supply chain are critical to the overall sustainable supply chain management performance (Azadi et al., 2015; Wilhelm, Blome, Bhakoo, & Paulraj, 2016). In sustainable supply chains, the evaluation and selection of suppliers go beyond the traditional measures of price, reputation, and flexibility (Azadi et al., 2015). The consideration of social and environmental factors is important as well. Thus, supplier management becomes a strategic aspect of organizational supply chain decision making for competitive advantages.

Sustainability in supply chains encompass the processes involved in sourcing materials as well as the processes for the further production of the final goods (Busse et al., 2017). The enforcement of sustainability across the supply chain for focal firms will depend on their first-tier and sub-tier suppliers given the reliance on external sourcing (Gualandris & Kalchschmidt, 2014), which makes the sustainability performance of a supply chain dependent on all actors and partners (Kumar & Rahman, 2015). This scenario also creates risks for buying firms as they have no control over the activities of sub-suppliers (Giannakis & Papadopoulos, 2016).

Focal or buyer firms wield great power in driving sustainability as they could cut off ties with non-compliant suppliers with serious financial implications for the suppliers (Busse, 2016; Varsei et al., 2014). Focal firms require systematic information gathering and management from suppliers for better visibility across the supply chain and uncertainty management (Busse et al., 2017). Collaboration and coordination among supply chain actors become imperative.

In driving sustainability across the supply chain, the buyer-supplier relationship becomes central such that focal or buying firms provide capacity or capability support for suppliers that have challenges implementing sustainability practices (Kumar & Rahman, 2015). Cross-functional integration among firms is vital in implementing sustainable supply chain management strategies (Ahmad et al., 2016). A conscious relationship management process is vital to fostering the adoption of sustainable supply chain management practices across the supply chain network (Chkanikova, 2015; Kumar & Rahman, 2015).

Review of the Central Concepts

Carter and Rogers (2008) in their sustainable supply chain management framework highlighted critical facets for driving sustainability performance (social, environmental, and economic) in supply chains vis-à-vis transparency, culture, risk management, strategy, and organizational culture. In the same vein, the management of sustainable supply chain vis-à-vis strategic, tactical, and operational levels as well as innovation, environmental, and social dimensions with all actors across the supply chain is crucial for effective sustainability performance (Gupta et al., 2013). An understanding

of the interrelated and relevant concepts in sustainable supply chain management is vital in exploring the phenomenon further.

Culture, Transparency, and Innovation. The concepts of culture, innovation, and transparency are interrelated and essential elements for driving sustainability in supply chains. Innovation, collaboration, and transparency are central to the success of sustainability efforts (Dubey et al., 2015). Innovation and sustainability dimensions produce sustainable and economically viable supply chains (Gupta et al., 2013). The collaboration between supply chain actors is at the heart of the production and delivery of goods to customers (Galal & Moneim, 2016). As such, the performance of all actors is critical to the effective and overall sustainability of the entire supply chain (Galal & Moneim, 2016).

Culture is innate to organizational dispositions and influences actions. Culture shapes organizational identity and sustainability performance (Thong & Wong, 2018). An organizational culture that champions a climate of teamwork, proactivity, and risk-taking could enhance the capabilities of firms to respond to sustainability demands across their supply chains (Ahmad et al., 2016). A critical part of sustainability practices in the supply chain of firms is culture. The development of an organizational culture that values and integrates sustainability principles is central to sustainable supply chain performance (Dubey et al., 2017a; Marshall, McCarthy, McGrath, & Claudy, 2015b; Reefke & Sundaram, 2017).

Transparency is a vital ingredient in driving sustainability in the supply chains of firms. Transparency in the supply chain involves open communication among firms and

their stakeholders to improve their supply chain performance activities (Carter & Rogers, 2008). Transparency encompasses the full disclosure of information about corporate practices for traceability (Egels-Zanden, Hulthen, & Wulff, 2015). The aspect of transparency in supply chains is an important ingredient for adhering to and meeting the requirements of regulators and broad stakeholders, which underscore its increasing significance in driving sustainability (Schulze & Bals, 2018). Transparency among stakeholders enhances trust in the supply chain.

Through transparency, stakeholders across the supply chain can provide the basis for exchanging critical ideas in collaborating and coordinating activities for driving sustainability. Transparency includes full disclosure of sustainability practices, guidelines, and reporting, as well as responding to external audits (Ahmad et al., 2016). These audits could engender continuous improvement and enhanced performances (Dubey et al., 2017a; Dubey et al., 2017b). A lack of transparency would result in distrust among supply chain stakeholders and thus, inimical to sustainable supply chains (Silvestre, 2015).

Supply chain practitioners may easily overlook innovation as an important factor in sustainable supply chains. Given the interrelatedness of supply chain actors in the supply chain networks, innovation is an essential element for effective sustainable supply chain management (Silvestre, 2015). Organizations can consider proactive steps such as innovation in their attempts to be responsive in a complex and dynamic environment (Beske et al., 2014; Beske & Seuring, 2014). An organization can take advantage of

opportunities for sustainable solutions in firms through innovative capabilities (Schaltegger & Burritt, 2014), which could result in improved sustainability performance.

According to Gualandris and Kalchschmidt (2014), the innovativeness of firms can enhance the development of supply chain practices and anticipate customer pressures. Such innovativeness could involve developing sustainable social and environmental products along the lines of renewable, energy efficiency, and healthy goods (Marshall et al., 2015a). Through innovative capability, firms in the supply chain could develop sustainable supply chain practices for the benefit of all stakeholders (Silvestre, 2015).

Looking at the interrelatedness among culture, transparency, and innovation, they all fit and could enhance organizational sustainability goals. An organizational culture that fosters innovation and creativity could engender solutions in driving sustainability practices in the supply chain for effective performance (Ahmad et al., 2016; Shuen, Feiler, & Teece, 2014). Innovative solutions that could drive sustainability practices in supply chains include eco-efficiency, socio-efficiency, miniaturization, lean production, renewable, and biodegradable production that eliminate the need for reverse logistics (Schaltegger & Burritt, 2014).

An organizational culture that encourages sustainable practices and the interaction with stakeholders in a transparent manner could demonstrate that firms are committed to sustainability in their supply chains (Ahmad et al., 2016), which could be a motivating factor for stakeholders. Thus, the concepts of transparency and culture are important in understanding an organizational commitment to sustainable supply chain management

practices. Also, supply chain management as a management philosophy is situated within an organization's inherent culture (Dubey et al., 2017a).

Mariadoss et al. (2016) examined how the orientations of firms in terms of environmental, social, cultural, local communal views, and beliefs interact with their strategic, tactical, and operational activities in driving sustainable supply chain practices. That is, the effects of these orientations on sustainable supply chain practices. The focus here was how the perspectives of focal firms shape their downstream and upstream sustainable supply chain management activities.

Culture becomes a focal point for firms. Organizational culture includes sustainability value and drives for integration of functions and processes (Reefke & Sundaram, 2017). Mariadoss et al. (2016) found that culture was among the orientations of firms that shaped supply chain practices in contrast to the social and local orientation that indicted no effects. The cultural orientation includes the value for the local community, preservation of local culture, and the sustenance of cultural values of various stakeholders in the community (Mariadoss et al., 2016).

Culture also includes team orientation, openness, flexibility, proactivity, risk-taking, and competitiveness internal to the organization (Ahmad et al., 2016). What remains to be studied related to culture is its effects on sustainability on a global scale across contexts (Mariadoss et al., 2016). Also, exploring the extent of the effects of culture on the sustainability strategies of firms over a period is logical (Ahmad et al., 2016). Altogether, how culture, transparency, and innovation together shape organizational strategy and commitment to sustainable supply chain management needs

further exploration. In other words, an investigation of the effects of culture, innovation, and transparency on sustainability efforts in supply chains.

Risk Management. The exposure of firms to high-level risks is significant given the multi-tier levels in their supply chain (Giannakis & Papadopoulos, 2016; Lintukangas, Kähkönen, & Ritala, 2016). Effective risk management involves the multiple coordination of actors across the supply chain (Freise & Seuring, 2015; Schaltegger & Burritt, 2014). Risk management orientation enhances the drive for more information across the supply chain in minimizing uncertainties in sustainable supply chain activities (Reefke & Sundaram, 2017). The risks include political, economic, emergencies, disruptions, regulations, and relationships (Ahmad et al., 2016). Risk management is vital in dealing with uncertainties and protecting future performances by taking proactive steps (Reefke & Sundaram, 2017).

Giannakis and Papadopoulos (2016) argued that traditional supply chain risks are quite different from sustainability risks and the effective management of sustainability risks could create value for stakeholders. A lack of understanding of sustainability risks could lead managers to approach those risks using traditional supply chain risk management frameworks with attendant consequences (Hofmann, Busse, Bode, & Henke, 2014). Sustainability risks could affect the long-term survival of firms (Valinejad & Rahmani, 2018). Thus, a deeper understanding of sustainability risks is central to effective risk management for organizational success.

Hofmann et al. (2014) made a clear distinction about the triggers of sustainable supply chain risks. In other words, the manifestation of sustainability risks differs from

traditional risks. In contrast to disruptions in the supply chains that trigger traditional risks, stakeholders' awareness of sources of risk activities by firms that fall below their expectations triggers sustainability risks manifestations in supply chains (Hofmann et al., 2014). The risks for firms become any associated activities of the firms in their supply chain that stakeholders perceive as negative. The perceptions of customers are significantly related to the sustainable supply chain management practices of firms (Kim & Lee, 2018), and thus, a vital element of sustainability risks.

Sustainability risks could be endogenous, which are easily predictable and manageable given their internal origination such as energy inefficiencies, wastes, excessive packaging, facility disasters, greenhouse gas emissions, non-compliance with laws and regulations, discrimination, and unfair wages (Giannakis & Papadopoulos, 2016). The opposite, which is exogenous, external, and more challenging include but not limited to natural disasters, climate change, shortages, social unrest, demographic changes, boycotts, fiscal crisis, and litigations (Giannakis & Papadopoulos, 2016). These sources of sustainability risks cut across social, ecological, and ethical business issues (Hofmann et al., 2014). Thus, firms must be proactive in managing these risks.

Sustainable supply chain management practices expose companies to risks and opportunities (Giannakis & Papadopoulos, 2016). Risk management as a process should be strategically managed (Giannakis & Papadopoulos, 2016). Monitoring and auditing of potential risks, as well as transparency in stakeholder engagement, are important in the proactive mitigation and the effective management of stakeholder pressure and overall sustainability risks (Beske et al., 2014; Hofmann et al., 2014). Ideal sustainability

strategies should include considerations for risks and uncertainties due to environmental, social, and financial impacts (Giannakis & Papadopoulos, 2016).

Turker & Altuntas, (2014) addressed the concept of risk management in sustainable supply chain management and found that risk was a critical factor for focal firms with supply chain operations in developing countries with records of social and environmental issues such as human rights violation and pollution. This observation is consistent with Ahmad et al.'s (2016) findings that effective risk management in material and production processes is necessary for firms in improving sustainability practices through the mitigation of disruptions and negative impacts.

What remains to be studied is the extent to which operational risks drive firms in developing and emerging economies in embracing sustainability in their supply chains. Industry-specific findings on the effects of risk management would be essential to understanding the varied impacts across different supply chain environments (Reefke & Sundaram, 2017). Thus, the development of better industry-specific strategies could be possible in dealing with and managing risks for effective sustainability performance. Examining the perceptions and effects of sustainability risks in nondeveloped regions needs to be explored further (Giannakis & Papadopoulos, 2016).

Sustainability Performance and Management. The effective combination of sustainable supply chain practices adds up to what constitutes sustainable supply chain performance (Boukherroub et al., 2015; Chardine-Baumann & Botta-Genoulaz, 2014; Tajbakhsh & Hassini, 2015). That is, a firm's performance regarding economic (reliability, responsiveness, financial, and quality), social (work conditions, human rights,

societal commitment-citizenship, customer issues, and business practices), and environmental practices (environmental management, renewable resources utilization, pollution, and ecosystems management). Sustainable supply chain management practices positively influence organizational performance (Hamdy, Elsayed, & Elahmady, 2018).

Sustainability performance is also a way for firms to ensuring that their supply chain partners in developing economies adhere to set guidelines (Turker & Altuntas, 2014). Relationship management that minimizes the resistance of partners in embracing sustainability practices in their supply chains could improve sustainability performance (Kumar & Rahman, 2015). Firms can enhance their operations through effective monitoring and control using sustainability performance measurements (Tseng et al., 2015). Through monitoring, firms can assess the effectiveness of the processes and progress made for further improvement (Ansari & Qureshi, 2015).

Chardine-Baumann and Botta-Genoulaz (2014) addressed the concept of supply chain performance by proposing a framework for holistically assesses the dimensions of sustainability for aggregate evaluation. Performance measures include company-wide sustainability quantifiable metrics, the links with metrics systems, and rewards systems. The evaluation of the sustainability dimensions could help firms improve sustainable supply chain performance (Ahmad et al., 2016). This evaluation brings to bear the aspect of decision support tools for better decision making (Reefke & Sundaram, 2018; Taticchi et al., 2015).

Given the complexity of the interaction, multi-variable, and information flow among supply chain actors, decision support tools are significant in managing the supply

chain and making improved decisions based on performance measurements (Sitek & Wikarek, 2015; Taticchi et al., 2015). Supply chain managers are increasingly in need of optimal answers to supply chain issues (Sitek & Wikarek, 2015). As such, the emphasis on the need for decision support tools and systems is critical for performance management.

Performance management systems that tie together the various environmental and social measures may be necessary for achieving coordination and efficiency in the supply chains of firms (Ahmad et al., 2016). Sustainable supply chain management performance measurement and tracking are necessary for meeting sustainability goals (Reefke & Sundaram, 2017). With sustainable-oriented measurement systems, firms can evaluate and collaborate to minimize the negative impacts of their supply chain activities on the society and environment (Schaltegger & Burritt, 2014).

Organizations could deal with pressures related to stakeholders and regulatory institutions in driving sustainability through multidimensional performance measurement systems to achieve long-term goals (Varsei et al., 2014). Such multidimensional performance measurement models that capture financial and non-financial aspects are important for identifying critical success factors and opportunities for improvement (Tseng et al., 2015). More studies still need to be done to examine the effectiveness of current sustainable supply chain management performance metrics to ensure they measure what they ought to for accuracy and better decision making.

Managers become the center of attraction for coordinating the various activities. Supply chain managers could be instrumental to fostering cultural orientation in driving

sustainable practices in the supply chain (Azadi et al., 2015; Dubey et al., 2017b; Mariadoss et al., 2016). Top management has a role to play in fostering the commitment to pursuing sustainable supply chain practices in firms (Ahmad et al., 2016; Dubey et al., 2017b; Sajjad et al., 2015). With managerial support and commitment, effective planning at the strategic, tactical, and operational levels is fostered for sustainability implementation in the supply chain (Gupta et al., 2013; Reefke & Sundaram, 2017).

Supply chain managers have the responsibility to drive sustainability in the supply chain to mitigate attendant sustainability risks and reduce costs (Giannakis & Papadopoulos, 2016). Top management as stakeholders in the supply chain with some elevated level of influence has the potential to shape sustainability practices through values and strategy (Kaur & Sharma, 2018; Meixell & Luoma, 2015; Vargas, Mantilla, & de Sousa Jabbour, 2018). Top management is critical to championing sustainability vision in the supply chain and providing the necessary tools for implementation (Ansari & Kant, 2017; Ansari & Qureshi, 2015). There is the need for further examination of the extent of the role of supply chain managers in driving sustainability in their supply chains especially in developing economies where awareness may be low.

Sustainable supply chain management is gaining popularity among scholars and practitioners alike. In the sustainability and supply chain literature and research across various industries, sustainable supply chain management is a buzzword given the strategic benefits the practices could provide for firms (Lam, 2015; Mathivathanan et al., 2018; Silvestre, 2014). Sustainable supply chain management is strategic in terms of integrating and achieving social, environmental, and economic goals in a transparent

manner for firms and their stakeholders (Carter & Rogers, 2008; Tseng et al., 2015). Strategies are vital for developing advantageous positions to create value for the firms and their customers (Porter, 1996). Sustainable supply chain strategies could enhance the value propositions of firms and their stakeholders.

Ortas, Moneva, and Álvarez (2014) asserted that sustainable supply chain strategies could improve an organization's profitability. Dubey et al., (2017a) asserted that firms could obtain competitiveness through sustainable supply chain practices. Sustainable supply chain management strategies can produce long-term gains for organizations and create an environment for innovative solutions (Ansari & Kant, 2017; Hall, Matos, & Silvestre, 2012; Pereseina et al., 2014). Such long-term benefits, enhanced reputation, and attendant competitive advantages stem from improved operational cost savings and risks mitigation (Carter & Rogers, 2008; Khodakarami, Shabani, Saen, & Azadi, 2015; Tseng et al., 2015).

Organizations are taking advantage of the benefits of sustainability efforts in their supply chain practices (Kuo, Chiu, & Dang, 2013; Lee & Wu, 2014; Mathivathanan et al., 2018; Vance, Heckl, Bertok, Cabezas, & Friedler, 2015; Xie, 2016). Companies like Nestle, IKEA, Siemens among others have been reported to have enhanced their profitability through sustainability practices in their supply chains (Dubey et al., 2015).

In conclusion, sustainability in supply chain is strategic as firms could improve their profitability, better serve their customers, and enhance competitiveness through the integration of social, environmental, and economic aspects of sustainability (Gracia & Quezada, 2016; Tseng et al., 2015). The adoption of sustainable supply chain strategies

can be beneficial for firms (Wolf, 2014). These strategies could involve efficiency (waste and resources minimization and consumption) consistency (substituting biodegradable production materials for unsustainable ones), and sufficiency (reducing production steps and processes) in driving sustainability in the supply chain (Schaltegger & Burritt, 2014).

The strategic management involvement, commitment, and support are critical to exploring the impacts of sustainability in the supply chain, developing visions and objectives, collaborating and communicating with partners, and training and developing staff and partners in creating sustainable technologies and products (Luthra & Mangla, 2018). Overall, sustainable supply chain management practices allow for the effective utilization of resources to minimize waste and improve the sustainability performance of firms (Tseng et al., 2015). Sustainable supply chain management practices as strategies can help organizations minimize idiosyncratic or unsystematic financial risks (Lam, 2018).

The incorporation of sustainable supply chain management strategies with the principles of the circular economy is a path to explore in future studies (Genovese et al., 2017; Pishchulov, Richter, Pakhomova, & Tsenzharik, 2018). Despite the environmental focus using the circular economy lenses, this pursuit is to expand and improve the scope of sustainable supply chain management practices for a self-sustaining planet. Supply chain managers should be able to take advantage of the sustainability pressures to strategically collaborate with stakeholders in driving sustainability in their supply chains (Dubey et al., 2017b) for effective performance.

The Meaningfulness of Selected Approach

Sustainability in supply chain continues to be important to stakeholders in the discipline. Scholars and practitioners continue to value the relevance of the aspects of sustainability in supply chain practices (Brandenburg et al., 2014; Mani et al., 2018; Pagell & Shevchenko, 2014). The topic of sustainability in supply chain continues to draw interests despite the lack of a coherent framework for firms to integrate sustainability principles into their supply chains (Fahimnia et al., 2015; Gold & Schleper, 2017).

Consumers are increasingly conscious and willing to spend on products they consider as sustainable in addition to other factors such as quality and safety (Govindan et al., 2014; Kim & Lee, 2018; Validi et al., 2014). Consumers are also part of the external pressure stakeholders that are demanding accountability and pushing back against firms externalizing the costs and risks of their activities (Giannakis & Papadopoulos, 2016; Marshall et al., 2015a; Schulz & Flanigan, 2016; Zhang et al., 2016). Social media and awareness are driving this consumer push for sustainability (Sigala, 2014). Customer pressures are vital in driving sustainable supply chain practices in firms (Gualandris & Kalchschmidt, 2014; Sigala, 2014; Thorlakson et al., 2018).

Notwithstanding, external pressures, as well as benefits, drive companies to embrace sustainability practices (Kumar & Rahman, 2015). Such benefits that have been acknowledged by various authors include competitive advantages, marketing edge, enhanced corporate reputation and image, and less scrutiny from external agencies (Kumar & Rahman, 2015). Firms could achieve competitive advantages in their

operations through implementing sustainable supply chain practices and dynamic capabilities such as collaboration for knowledge and information sharing, joint development and training, stakeholder management, and transparency (Beske et al., 2014; Zhang et al., 2018).

In the globalized business landscape, supply chain activities are ubiquitous. Global supply chains make up for about 80% flow of global trade and more than one in five jobs related to goods and services production (International Labour Organization, 2016; O'Rourke, 2014; UN Global Compact Office & BSR, 2015). Thus, supply chain activities are central to the globalized economy with the attendant social and environmental impacts (Reefke & Sundaram, 2017; Thorlakson et al., 2018). Globalization has increased the pressures for supply chain sustainability across global organizations of varied sizes and sectors (Azadi et al., 2015; Meixell & Luoma, 2015; Seuring, 2013).

To remain competitive, organizations continue to make efforts to improve their supply chains due to globalization (Ansari & Kant, 2017) given the increase in challenges organizations face relating to sustainability across their supply chains (Ahi & Searcy, 2015; Varsei & Polyakovskiy, 2017). Developing and emerging economies face challenges implementing sustainable supply chain management practices (Pereseina et al., 2014; Silvestre, 2015; Touboulic & Ejodame, 2015). More studies are needed to explore the perspectives and challenges that supply chain practitioners in developing and emerging economies face in implementing sustainability practices (Silvestre, 2015; Touboulic & Ejodame, 2015).

Accordingly, the research question for this study focused on exploring the lived experiences of supply chain practitioners in the consumer goods manufacturing industry in a developing economy, Nigeria, about sustainable supply chain. The integration of supply chain practitioners in academic research is important to positively advance theory and practice (Fahimnia et al., 2015). Findings from this study may provide insights that supply chain practitioners could use in a prescriptive manner in effectively implementing sustainable supply chain management practices (Reefke & Sundaram, 2017). The understanding of the perspectives based on sectors could provide a framework for policymakers in decision making (Brandenburg et al., 2014).

The qualitative approach for this study was meaningful to understand in-depth context-specific factors at play. The qualitative approach fits within the calls for more studies into sustainability in supply chains to provide insights quantitative studies may overlook (Dubey et al., 2015; Pagell & Shevchenko, 2014). Qualitative interviews with supply chain professionals provided a method for obtaining information about supply chain activities (see Reefke & Sundaram, 2017). Interviews also allowed for gaining deeper insight into the sustainability phenomenon (see Gualandris & Kalchschmidt, 2014). Interviews could be used to obtain data from the supply chain and sustainable development managers (Ahmad et al., 2016) to advance research and practice.

A global view of the various constituents vis-à-vis social, economic, and environment are essential to sustainability (Reefke & Sundaram, 2017). This global view underscores the importance of examining the whole system as against parts. Phenomenology focuses on the whole to understand the various parts (Sokolowski,

1999). Thus, phenomenology as a way to comprehending the various parts from a holistic point of view is important in this study. Balancing the competing dimensions of sustainability concerning economic, social, and environment in supply chains could help to mitigate the attendant challenges that firms face (Varsei & Polyakovskiy, 2017). True sustainability can come from a firm's innovative capacity and ability to manage the interest of stakeholders (Shevchenko et al., 2016).

Summary and Conclusions

Sustainable supply chain management continues to be the focus of academics and practitioners (Azadi et al., 2015; Beske et al., 2014; Mani et al., 2018; Pagell & Shevchenko, 2014). Given the attendant negative consequences such as social inequality and environmental degradation and the increased public scrutiny, companies are embracing sustainability principles as part of their corporate social responsibility efforts (Boukherroub et al., 2015; Dubey & Gunasekaran, 2015; Giannakis & Papadopoulos, 2016; Meixell & Luoma, 2015). The minimization of the negative impacts of the operations of firms would require their adoption of sustainable practices in their supply chains (Ansari & Kant, 2017; Chardine-Baumann & Botta-Genoulaz, 2014). The adoption of sustainable supply chain management by firms could address the interests of stakeholder groups (Ansari & Qureshi, 2015; Reefke & Sundaram, 2017; Schulz & Flanigan, 2016; Wolf, 2014).

The review of the literature on sustainability in supply chain management showed that various authors had explored the topic using different methodological approaches vis-à-vis quantitative, qualitative, and mixed methods. Researchers have

examined how to achieve supply chain profitability through sustainable strategies and network optimization. Research into sustainable supply chain management topic has seen fractured approaches whereby various authors separately examined the dimensions of sustainability relative to supply chain management. A popular approach is the green supply chain management that focuses on environmental sustainability.

Most studies into the topic of sustainability in supply chain were conducted from the context of developed economies. The major themes include supply chain optimization, reverse and forward logistics, sustainability performance, transparency, collaboration, innovation, culture, performance management, risk management, drivers, barriers, and enablers of sustainable supply chain management. There is a growing interest in assessing sustainable supply chain management in a holistic manner that considers the three dimensions of sustainability, especially in nondeveloped economies.

To be specific, there is a lack of research that addresses how stakeholders in developing and emerging economies implement and perceive sustainable supply chain management (Avittathur & Jayaram, 2016; Fiorini & Jabbour, 2017; Pereseina et al., 2014; Silvestre, 2015; Touboulic & Ejodame, 2015). Developing and emerging economies face unique challenges in implementing sustainable supply chain management practices (Galal & Moneim, 2016; Silvestre, 2015; Touboulic & Ejodame, 2015). The implementation of sustainable supply chain management practices in Nigeria, a developing economy, is a challenge (see Ojo et al., 2015; Shitu & Mohd-Nor, 2017; Touboulic & Ejodame, 2015).

This study filled these gaps by exploring the experiences of supply chain practitioners in the consumer goods manufacturing sector of a developing economy, Nigeria. The findings provided holistic insights, themes and future directions about sustainable supply chain management in developing economies (see Avittathur & Jayaram, 2016; Fahimnia et al., 2015; Reefke & Sundaram, 2017; Thorlakson et al., 2018). The qualitative phenomenology approach for this study in filling this gap will be discussed in the next chapter where I articulate the design, methodological, and ethical procedures needed to convey quality and rigor.

Chapter 3: Research Method

The purpose of this qualitative transcendental phenomenological study was to explore and describe the lived experiences of supply chain practitioners in the Nigerian manufacturing consumer goods sector about sustainable supply chain management to understand the challenges they face in implementing sustainability. The sustainable supply chain management phenomenon involves the focus on the integration of the triple bottom line vis-à-vis economic, social, and environmental considerations within an organization's supply chain from raw materials to the finished product in customers hands (Ansari & Qureshi, 2015; Eitiveni et al., 2017).

In this chapter, the discussions will be about the considerations for the conduct of this qualitative phenomenological study. The discussions will involve the justification of the chosen design in the context of other alternative designs as well as the role of the researcher. The discussions about methodological rigor will follow and include the rationale for participant selection, instrumentation, pilot study, data analysis plan, issues of trustworthiness, and ethical procedures. These discussions will highlight the logical and methodological steps in answering the central research question of this study.

Research Design and Rationale

As part of the qualitative research design, the researcher needs to consider method choices such as participant selection, instrumentation, procedures for data collection, data analysis plan, issues of trustworthiness, as well as ethics. In doing so, the central research question the findings of the study would answer becomes a focal point. The central research question for this study is

RQ: What are the lived experiences of supply chain practitioners in implementing sustainable supply chain management practices in the consumer goods manufacturing industry in Nigeria?

The phenomenon of interest is sustainability in supply chains with a focus on the experiences of supply chain practitioners. Sustainability in supply chain management encompasses the incorporation of the triple bottom line imperatives of economic, social, and environmental considerations with an organization's supply chain from raw materials to the finished product in customers hands (Ansari & Qureshi, 2015; Lu et al., 2016). The research tradition for this study was qualitative, and the chosen design was transcendental phenomenology.

The qualitative tradition encompasses different philosophical orientations, culture, knowledge epoch, and approaches with traces to Herodotus and Aristotle and historical roots in anthropology, philosophy, and sociology (Erickson, 2011; Merriam & Tisdell, 2016; Patton, 2015). Qualitative research is about discovering, describing, and narrating the activities of people in their peculiar environment with respect to a phenomenon under consideration (Erickson, 2011). Qualitative research offers a naturalistic and interpretive approach to understanding different phenomena in the world (Denzin & Lincoln, 2013). That is, an approach to understanding the world from the perspectives of the observed and the observer.

On the other hand, the quantitative paradigm with positivist epistemological roots in the natural sciences focuses on quantification of data and follows the deductive model of hypotheses development and testing in grounding theory (Babbie, 2017; Burkholder,

2016). The quantitative research method focuses on numbers to represent data and requires statistical procedures in the analysis of the data (Dietz & Kalof, 2009). Statistical tools as the main drivers of quantitative analysis help to improve decision making despite the tentative and uncertain nature of the results (Frankfort-Nachmias & Leon-Guerrero, 2015). However, the quantitative approach with the focus on causality and measurements provides less depth and richness (Babbie, 2017; Denzin & Lincoln, 2013).

Qualitative research involves the discovery and description of people's beliefs and interests in their specific and natural environments (Erickson, 2011). Qualitative research enables the researcher to capture contextual richness as well as go deeper into how people perceive different circumstances (Yin, 2016). The qualitative approach allows interaction with participants to provide insights for understanding their experiences and broader mindsets (Merriam & Tisdell, 2016; Yin, 2016). Therefore, the qualitative approach was more appropriate for this study to provide an in-depth understanding of the sustainability phenomenon in the day-to-day environment of the participants to understand their experiences in the context of their unique environment.

The qualitative phenomenological approach allowed for exploring the experiences of supply chain practitioners related to sustainable supply chain management based on their unique and individual experiences for commonalities (see Dawidowicz, 2016; Moustakas, 1994; Sloan & Bowe, 2014; Vagle, 2014). There are various strands and traditions in phenomenology (Van Manen, 2014). For this study, the transcendental phenomenology approach was best and provided the structure for exploring the lived

experiences as they are presented while attempting to draw meanings and describe essences of the experiences of the participants without using nongiven factors (see Bloor & Wood, 2006; Giorgi, 2009; Moustakas, 1994).

Unlike Heidegger's hermeneutic phenomenological approach that focuses on interpretations, the goal of this study was to describe the experiences of participants by putting aside preconceived notions consistent with transcendental phenomenology (see Laverty, 2003; Sloan & Bowe, 2014). Because researchers who use phenomenology focus on meanings based on lived experiences (Bloor & Wood, 2006; Van Manen, 2014), this approach was consistent with the scope of this study to explore and describe sustainable supply chain management in Nigeria from the perspectives of supply chain practitioners based on their day-to-day professional experiences.

Other approaches such as narrative, ethnography, case study, and heuristic were considered for this study. Narrative inquiries are about stories that provide the lens to see and understand cultural and social meanings, such that the stories become data for interpreting and contextualizing the reports (Patton, 2015; Reissman, 1993). Thus, narrative is an approach that involves individual stories about their lived and told experiences within specific situations (Creswell & Poth, 2018). Ethnography encompasses planning, exploring, and describing the experiences of people using their own words (Moustakas, 1994). Culture is at the heart of ethnography, and an ethnographic inquiry requires that the researchers integrate and immerse themselves into the field and apply findings from the cultural lenses (Creswell & Poth, 2018; Wolcott, 2008).

The case study approach provides a platform for an in-depth understanding of the contemporary phenomenon (Yin, 2018). The focus is on studying a phenomenon with respect to human activity within a context and bounded unit (Crawford, 2016; Stake, 2011; Yin, 2018). Heuristic inquiry is closely related to phenomenology but involves the consideration of the researcher's personal experiences, beliefs, and insights (Moustakas, 1994; Patton, 2015). Narrative and case study approaches were not the best fit for this study due to the interpretive and bounded unit constraints they pose respectively. Further, ethnography and heuristic were not suited for this study given the immersion and description through cultural perspectives as well as the imposition of researchers' self-reference respectively, which are inconsistent with the goals of this study.

Phenomenology is a holistic philosophy and methodology. According to Giorgi, Giorgi, and Morley (2017), phenomenology as a philosophy that explicates consciousness does not necessarily contradict empiricism but acknowledges factors such as irreal objects that go beyond the empirical criteria. In the 1900s, Husserl pioneered phenomenology as a philosophy for exploring the phenomenon of consciousness (Eberle, 2014; Giorgi et al., 2017). Thus, the phenomenological philosophy underpins the phenomenological method for research.

According to Giorgi (2009), the identity of phenomenology as a method for exploring structures of consciousness stems from its philosophy. Thus, the meaning-giving nature of the phenomenological method has roots in the philosophy (Van Manen, 2014). Phenomenology as a philosophy has engendered methods for analysis in social sciences (Eberle, 2014). There have been various strands of the phenomenological

movement (Giorgi & Giorgi, 2008; Giorgi et al., 2017; Van Manen, 2014) with Husserl's transcendental and Heidegger's interpretive or hermeneutic phenomenology as the main approaches or methodologies (Dawidowicz, 2016; Sloan & Bowe, 2014).

Phenomenology focuses on the perceptions and experiences of participants. Empirically, using the phenomenological approach requires seeking the experiences of people for deriving general meanings or essences through comprehensive descriptions and structural analysis (Moustakas, 1994). The comprehensive descriptions make phenomenology different from other philosophies (Giorgi et al., 2017). The focus of phenomenological studies is to move from individual experiences to universal meanings (Moustakas, 1994). In other words, the descriptions of universal structures based on subjective perceptions (Eberle, 2014). Any interpretation by the researcher in describing the essences is within the verbatim description and contexts of the participants' experiences.

The phenomenological method focuses on the meanings of lived experiences as they appear in the world through unraveling and reflective questioning of the various sources of the things or events (Sokolowski, 1999; Van Manen, 2014). The use of the phenomenological method centers on examining the conscious presentation of a phenomenon as experienced by the experiencer to discover essences (Giorgi, 2009). Altogether, description and interpretation of meanings are the goals of phenomenological studies (Van Manen, 2014). Phenomenology as a design allows researchers to explore, analyze, describe the perceptions of the experiences of people as well as the extent of transferability (Dawidowicz, 2016). Phenomenological methods allow for the logical,

systematic, and coherent derivation of knowledge from the meanings and essences as presented without preconceived assumptions (Moustakas, 1994). In other words, the analysis of the lived experiences as presented by the experiencer by first bracketing (eidetic reductions) assumptions (Eberle, 2014; Giorgi et al., 2017).

When a researcher studies a phenomenon, the intersection between the phenomenological philosophy and methodology is made manifest. A phenomenological study centers on making meanings based on the manifestations and appearances from the interconnectedness of human subjects and objects in the world (Vagle, 2014). The challenge for the phenomenological researcher thus is to capture the essence of such intentional interconnectedness among subjects and objects, whether real or imagined.

Husserl's Transcendental Phenomenology

The transcendental phenomenological philosophy as conceptualized against all odds by Husserl is enshrined in subjective openness (Moustakas, 1994). That is, the transparent and free acknowledgment of one's knowledge and experiences in discovering new ideas or theories (Moustakas, 1994). For Husserl (1962), the phenomenological philosophy in searching and finding new scientific domain limits the consideration of universal and preconceived self-notions through bracketing without denying the existence or validity of such bracketed notions. The researcher accepts the experiences presented in the field as realities in the given context.

The concept of intentionality of consciousness with respect to an object whether real or imaginary is central to transcendental phenomenology (Giorgi et al., 2017; Moustakas, 1994). In other words, the triggered conscious experience based on

perceptions due to the recognition of an external object in reality. Thus, the intentionality of consciousness consists of the interrelationship between the noematic perceived consciousness and the evidencing noesis (Moustakas, 1994). Through the noema-noesis relationships, the essences with respect to a phenomenon are derived. That is, deriving essences or eidos that constitute universal invariant properties (Eberle, 2014).

Intuition is also another important aspect of transcendental phenomenology. Through intuition, knowledge about life experiences that is devoid of external influences begins to develop (Moustakas, 1994). Thus, people through intuition and self-reflection drive the intentionality of their consciousness with respect to the perceptions of a phenomenon. Consequently, intuition becomes critical in describing the phenomenon as they are actually presented (Moustakas, 1994).

Further, description is at the heart of Husserl's transcendental or descriptive phenomenology (Giorgi et al., 2017). Transcendental phenomenology involves steps for understanding shared essences of people about a phenomenon through the reduction of individual perceptions of experiences (Dawidowicz, 2016). In the same vein, the epoche phase in the transcendental phenomenological method is critical for a researcher to enter the phenomenological attitude by putting aside the natural attitude with the attendant biases (Giorgi et al., 2017). The researcher reaches a state of pure consciousness where empirical realities are set aside (Giorgi et al., 2017). That is, bracketing all prior notions and focusing on just the scope of the presenting phenomenon.

The Husserlian transcendental phenomenological method as explicated by Moustakas (1994) follows a series of lockstep. As the first step to looking at phenomena

in a whole new light (epoche), setting aside prejudgments is important before the textural description of open perceptions of pure phenomena as presented (Moustakas, 1994). Intuitively structuring the perceptions of the phenomena (imaginative variation), and synthesis of meanings and essences culminates in the steps (Moustakas, 1994).

The aspect of intersubjectivity is situated within the epoche process of surrendering the intentional consciousness and go above the ego and alter ego to understand the perceptions of experiences as presented by others (Moustakas, 1994). Overall, this qualitative transcendental phenomenological study about the experiences of supply chain practitioners in the consumer goods manufacturing sector in Nigeria involved the consideration of methodological and procedural requirements consistent with the transcendental phenomenological approach for data collection and analysis.

Role of the Researcher

The aspect of the role of the researcher in a study is important as the worldview of the researcher may affect the validity of the study and thus, the need for reflection to recognize the possible biases and steps to guard against them (Fusch & Ness, 2015; Ravitch & Carl, 2016). In reflecting on my role as the doctoral researcher and primary instrument for data collection, I interviewed participants and took notes of any observed demeanors and contextual cues during the process. I respectfully asked questions and made sure my note taking did not distract the participants as they described their experiences while I probed further. This study was not conducted within my work environment, and there was no conflict of interests whatsoever.

My connection with this topic was based partly on my professional experience as a supply chain management practitioner. I chose to explore the topic in the manufacturing setting in a developing country to get a sense of the developments there in terms of sustainable practices in comparison with the perspectives from developed economies. I have, over the years, been interested in sustainability and have done so from the Western context. My motivation was to raise awareness of the importance of sustainability practices in supply chains in Nigeria.

The primary audience for the findings is supply chain practitioners in the consumer goods sector of Nigeria that play a major role in the manufacturing sector. Also, my social identity cuts across African and Western contexts. Given the considerations about the potential bias in my role as the researcher and primary research instrument posed, I continuously evaluated and took steps to acknowledge and mitigate bias in data collection, analysis, and presentation.

Further, my relationship with the participants was on a professional level given the years of working together in the supply chain field. However, whatever bias that arose due to my connection to the topic and my professional relationships with the participants was minimized by using member checks and allowing participants to review the results as well as peer debriefing. Further, the aspect of epoche in the transcendental phenomenological approach in this study helped to compartmentalize potential biases.

Methodology

As part of the qualitative research design, the researcher needs to consider method choices such as participant selection, instrumentation, and procedures for recruitment,

data collection, and analysis plan. In doing so, the central research question the findings of the study would answer becomes a focal point for methodological congruence. Thus, the discussions about the issues of trustworthiness and ethics are important to demonstrate rigor and highlight the responsibilities of the researcher in considering the interests of participants and providing reliable findings.

Participant Selection Logic

The population in this study was supply chain practitioners in Nigeria across the various industries. The various industries include agriculture, construction, real estate, consumer goods, financial services, healthcare, industrial goods, information and communications technology, natural resources, oil and gas, services, utilities, and conglomerates (The Nigerian Stock Exchange, n.d.). Supply chain practitioners plan and manage sourcing, procurement, and logistics activities for organizational efficiency (Njoku & Kalu, 2015). The sample was supply chain practitioners in the consumer goods manufacturing sector involved in the production of food items, household items, personal products, textile, apparel, tobacco, toys, electronics, automobile, and parts. The focus of this study was to explore and describe the lived experiences of supply chain practitioners in the consumer goods manufacturing industry in Nigeria.

The sampling strategy for this study was purposeful to choose specific participants from the population of interest that provided in-depth data, which was consistent with the qualitative approach (see Bloor & Wood, 2006; Ravitch & Carl, 2016; Patton, 2015). Unlike the random sampling for statistical power that is aligned with the quantitative approach, the purposive sampling allowed for the selection of a

representative sample of people that provided the most insights (see Crawford, 2016; Frankfort-Nachmias & Leon-Guerrero, 2015; Merriam & Tisdell, 2016; Skott & Ward, 2013).

The purposeful sampling involved the use of the group characteristics strategy of key knowledgeables (see Bloor & Wood, 2006; Patton, 2015). People who have in-depth knowledge about a topic. The key knowledgeables strategy was used to select participants that have the related experiences to the phenomenon under study from the desired population to obtain relevant information in answering the research questions (see Ravitch & Carl, 2016).

In consideration of the logic for participant selection in the broader scope for data collection, it is essential that the researcher establishes the criteria for including and excluding participants (Crawford, 2016). The criteria could include the purpose of the study, the research question, and resources at the researcher's disposal (Crawford, 2016; Creswell & Poth, 2018). In phenomenological studies, finding and selecting participants involve general considerations such as age, gender, cultural or economic factors as well as essential considerations that include relevant participant's experience, willingness to participate, and overall cooperation as a co-researcher (Moustakas, 1994).

The primary inclusion parameter for this phenomenological study was that the potential research participants have the lived experience of the phenomenon under study, have at least 3 years as a supply chain practitioner in the consumer goods manufacturing sector, above the age of 18 for ethical considerations, and were disposed to spending some time in participating in the research process. As such, participants below the age of

18, above the age of 65, less than 3 years of experience as a supply chain practitioner in the consumer goods manufacturing sector in Nigeria and unwilling to cooperate were excluded from the study.

The recruitment processes involved gaining permission and obtaining contact information from gatekeepers using my social network so an invitation for participation could be sent. The choice of selected consumer goods manufacturing companies was based on their listing on the Nigerian stock exchange. The contact information included names and email addresses of participants. Potential participants that responded to the invitation were prequalified to ensure they met the inclusion criteria. This process for establishing that participants met the requirement involved a brief pre-interview in-person and over the phone.

Most researchers in phenomenological studies interview around 3 to 25 participants since the focus are about depth as against breath of the perceptions and experiences of participants (Creswell & Poth, 2018; Dawidowicz, 2016; Polkinghorne, 1989). The number of participants in this study was 21 to achieve saturation. The number of 21 participants fell within the range of 3 to 25 participants as in most phenomenological studies (see Creswell & Poth, 2018; Dawidowicz, 2016; Polkinghorne, 1989), and above the threshold of the sufficiency of 12 homogeneous participants to achieve saturation as Guest et al.'s (2006) demonstrated. An initial interview of 18 participants was done. Additional three persons were interviewed until the redundancy of information was achieved (see Bowen, 2008).

According to Fusch and Ness (2015), data saturation is central to any research to enhance validity. Data and theoretical saturation involve the addition of more sample until replication of information is observed with the validation of data categories in such a way that that no new insights, themes or concepts are evident (Bowen, 2008; Fusch & Ness, 2015; Morse, 2004; Nascimento et al., 2018). Looking at the relationship between sample size and saturation, the sufficiency of sample sizes related to qualitative purposive sampling strategies involves the notion of data saturation. In other words, the point at which additional data and analysis from an additional sample produce no new or relevant change to the information already gleaned (Guest et al., 2006). When additional data are analyzed and produce no new theme, data saturation would be considered achieved. If additional data produce something new, more data will need to be collected for further analyses until reaching saturation.

In terms of data and theoretical saturation related to the point at which additional data and analysis from an additional sample produce no new theory or relevant change to the information already obtained (Bryman, 2012; Guest et al., 2006), the sample size of 21 was sufficient to achieve saturation. During the concurrent and systematic collection and analysis of data in this study, patterns and themes were recorded and observed for recurrence. At the 18th participant, the repetition of major themes and ideas persisted and provided a platform to make a case for saturation. Nonetheless, an additional set of 3 participants were interviewed to reach saturation. This determination was done in collaboration with the research committee and consistent with the necessity of involving others in saturation determination as a lone researcher (see Ravitch & Carl, 2016).

Instrumentation

Data collection as a component of the overarching research design is significant in the research process. Research is about data, and thus, data provide the foundation for a research study (Yin, 2016). In qualitative research, researchers are the primary instrument for data collection (Crawford, 2016; Denzin & Lincoln, 2013; Ravitch & Carl, 2016). The supporting central data collection instrument involved a semi-structured interview guide (see Appendix A). The interview guide consists of written questions that are related to the topic for discussion, which a researcher could use to initiate or follow-up interview questions and probe further (Rubin & Rubin, 2012; Yin, 2016). This interview guide ensured consistency of questions across participants (Patton, 2015), which enhanced validity.

An overarching interview protocol that included the interview guide and script was also developed (see Appendix B). The interview protocol combines the interview guide, invitation, consent form, and scripts for prompts, informed consent, and other information to collect as well as steps to take during the interview process (Castillo-Montoya, 2016; Jacob & Furgeson, 2012). This document could also serve as a conversational document (Rubin & Rubin, 2012). The semi-structured interview instrument was sufficient to answer the research questions as the protocol provided for consistent questions across participants to obtain responses in their own words and from their perspectives (see Fusch & Ness, 2015; Guest et al., 2006; Patton, 2015).

The interview protocol was self-developed for the purpose of this study and to provide answers to the central research question. The questions in the interview protocol

should be specific enough to elicit relevant information from participants consistent with the goals of the study (Patton, 2015; Rubin & Rubin, 2012). Thus, the goal for the development of the open-ended interview questions in the protocol is to allow for an in-depth exploration of the experiences of participants to obtain rich data (Turner, 2010).

Using the literature as a background in developing the interview questions is vital to understand what other scholars had done in the past and helpful in framing the questioning accordingly (Jacob & Furgeson, 2012; Rubin & Rubin, 2012). Therefore, the literature on sustainable supply chain management served as the basis for the for the development of the interview questions. The process involved a review of the patterns (research in developed and nondeveloped contexts), topic, and concepts (sustainability, supply chain management, barriers, enablers, and stakeholder pressure) (see Ansari & Kant, 2017; Galal & Moneim, 2016; Silvestre, 2015; Touboulic & Ejodame, 2016; Touboulic & Walker, 2015).

Further, I reviewed the assumptions and components of the conceptual framework and theoretical foundations of the study to generate more concepts (see Bertalanffy, 1972; Carter & Rogers, 2008; Freeman, 1984; Gupta et al., 2013). Keywords that formed the basis of the interview questions include *what, describe, tell me about... and could you give me examples of* (see Jacob & Furgeson, 2012; Patton, 2015; Rubin & Rubin, 2012). In addition, the methodological source of the qualitative phenomenological interview was reviewed in developing the interactive and responsive interview guide to obtain detailed data about the experiences of participants in answering the central research questions.

These steps were encapsulated within the interview protocol refinement (IPR) framework by Castillo-Montoya (2016) to demonstrate rigor.

The IPR framework involves the systematic steps in developing and refining the interview protocol by aligning the interview questions with the purpose of study, refining the interview questions to allow for an inquiry-based conversation, seek and receive feedback on the interview questions from peers and committee members, and pilot the interview questions within reasonable conditions related to the population of the study so as to make the necessary adjustment to the protocol (Castillo-Montoya, 2016). These steps assured for the validation and sufficiency of the contents of the protocol to obtain data to answer the central research questions. The feedback received will indicate if further refining and alignment were needed to ensure the protocol was sufficient to answer the central research questions of the study.

Other tools for data collection included a personal tape recorder used to capture the words of participants for verbatim transcription to remain faithful to the words of the participants during analysis, and field notes to capture various aspects of the data collection process and contextual factors accordingly (see Ravitch & Carl, 2016; Yin, 2016). The combination of the audio tape and fieldnotes ensured the accurate representation of participant's voice and minimized researcher bias and consistent with the phenomenological approach (see Halcomb & Davidson, 2006; Sutton & Austin, 2015).

Field Test

Taking steps to demonstrate rigor and enhance the overall quality of the research instrument is important. Validating or demonstrating the credibility of the research instrument is essential for making sure that the contents of the instrument will obtain the relevant data in answering the research questions of the study (Dikko, 2016; Toma, 2011). Through pilot studies, research instruments can be validated for clarity, consistency, and alignment with the purpose and central research questions of the study (Castillo-Montoya, 2016; Dikko, 2016; Jacob & Furgeson, 2012; Turner, 2010).

According to Castillo-Montoya (2016) feedback on the interview guide could be sought from others if access to the intended population is impossible when there are issues with time, cost, and logistics. Thus, in this study, I used expert panels that included subject matter experts such as my research committee and renowned researchers on sustainability and supply chain topic for feedback on my instrument as part of the field test. Expert panels could provide recommendations for addressing problems with the instrument (Czaja & Blair, 2005; Yaokumah & Brown, 2014). Field test as an aspect of piloting would allow for the reassessing and finetuning of the interview instrument (Bloor & Wood, 2006; Saris, 1991). Based on the feedback from the field test, the instrument was revised and refined before use in the main study (see Fink, 2003; Lysaght et al., 2018).

Procedures for Recruitment, Participation, and Data Collection

As the primary researcher for this study and research instrument, I collected data from participants using the semi-structured interview protocol. Participant selection is

vital in identifying those willing to participate in the research based on the purpose of the study (Creswell & Poth, 2018). As part of the research plans for this study, considerations were made related to access to participants based on the inclusion and exclusion criteria I articulated in the participant selection logic section above. I used my social network in the region to gain access to gatekeepers of the sites to obtain permission to distribute the research participant invitation to the supply chain members.

The recruitment and participation plan involved a pre-interview phone call conversation for about 3-5 minutes with interested participants that responded to the research invitation email sent out. The pre-interview covered the purpose of the study and the clarification of questions the interested participants had. Also, the interested practitioners were questioned further about their fit for participation based on the inclusion criteria and willingness to commit to taking part in an audio-taped interview session. After an agreement for participation was reached, a convenient time and place for the main one-on-one interview were scheduled.

The one-on-one interview in-depth method was appropriate and consistent with the phenomenological approach since my intent as a lone researcher for this study was to gain a rich and in-depth understanding of the experiences and interpretations of each participant (see Bloor & Wood, 2006; Ravitch & Carl, 2016). Most importantly, interviewing in qualitative research that is mostly open-ended and less structured allows researchers to understand better the unique interpretations and feelings of individuals in respect to their worlds that cannot be easily observed (Merriam & Tisdell, 2016).

The central research question of this study was to obtain in-depth insights from supply chain professionals in the consumer goods manufacturing sector about their experiences in implementing sustainability principles in their supply chains. This question helped to understand the challenges or barriers to implementing sustainable supply chain management. This research questions also helped to illuminate insights into the perspectives of supply chain practitioners regarding sustainable supply chain management. As the researcher, I collected data in Lagos, Nigeria. The interview was conducted over four weeks at a convenient time and place for the participants. The duration of the interview sessions lasted between 30 to 75 minutes. The interview sessions were audiotaped subject to approval by the participants, which facilitated verbatim transcription.

The interview was conducted using the face-to-face format. This face-to-face interview format enabled me to obtain in-depth information from participants by building rapport, deepening the conversation, taking note of nonverbal or social cues, and contextual factors that added to the richness of the data (see Novick, 2008; Opdenakker, 2006). The synchronous nature of the face-to-face format offered spontaneity for questions, answers, and clarification; control of ambience and standardization; as well as a gradual and more polite way of closing the interviewing (see Opdenakker, 2006).

The building of rapport at the very critical entering phase of the interview was important to create a connection with the participant without undermining neutrality for a fruitful interview session (see Patton, 2015; Yin, 2016). Due to the few participants that volunteered in the initial recruitment process, snowball strategy was used to gain contacts

for more supply chain practitioners that were willing to participate as a follow-up plan. Participants who had already been interviewed were asked to contact their acquaintances in the industry who might be appropriate for this research to ask them if they might be interested in participating. Snowball strategy was effective to accumulate more participants through the recommendation by initial participants (see Merriam & Tisdell, 2016; Patton, 2015). As a backup plan in case the interview of participants in the same location became impossible, video calls using Skype was set up.

I engaged in the epoche process before commencing the interview sessions. The epoche process involved a reflexive self-dialogue and acknowledgment of my preconceived perceptions and biases (see Moustakas, 1994). Engaging in the epoche process of setting aside biases is vital before the interview sessions (Moustakas, 1994). In closing the interview sessions, I thanked participants for their time and information provided. The participants were informed that a copy of the analysis would be sent to them via email for their inputs and clarification as appropriate. The participants had seven days to review the documents and return them via email. Failure to respond meant that they agreed with the analysis. This procedure assured the member checking validation strategy.

Data Analysis Plan

In qualitative research, researchers must consider some fundamental steps for organizing and analyzing data as part of the overarching analysis plan. The qualitative analysis that encompasses steps a researcher takes in examining data collected to provide logical answers to the research questions (Rubin and Rubin, 2012), is encumbered by the

challenge of generating meanings to the vast amount of the said data collected (Patton, 2015). Researchers will need to consider how the collected data are organized, what the research focus is (central research question), which analysis method should be used, how outliers will be treated, as well as the role of computer-assisted tools.

The data collected in this study directly provided insights into the central research question. The analysis of the data provided in-depth perspectives from supply chain professionals in the consumer goods manufacturing sector about their experiences in implementing sustainability principles in their supply chains.

The data analysis plan for this study involved the transcendental phenomenological method as described by Moustakas (1994). The steps include

1. The epoche process- to put aside biases and preconceived notions through reflexive writing and focus on the goals and central questions of the study.
2. Phenomenological reduction- to provide textural descriptions of the stated experiences and generate clustered horizons and themes.
3. Imaginative variation- to provide intuitive structural descriptions of the *how* of the experiences.
4. Synthesis of meanings and essences- to provide descriptive holistic essences with respect to the phenomenon under study.

Coding. Qualitative data analysis as a simultaneous process in qualitative research involves consolidating, reducing, and interpreting data to make sense out of it (Merriam & Tisdell, 2016). The analysis is simultaneous because it could occur throughout the research process at different stages. The researcher analyzes data on a

step by step basis to provide answers to the research question. The step by step processes encompass among others the preparation and organization of data and condensing them into codes (Creswell & Poth, 2018; Rubin & Rubin, 2012).

Codes are words or phrases a researcher assigns to data collected that capture summative meanings for further analysis (Saldaña, 2016). Coding as an iterative process involves the assignment of a word or short phrase to various parts of data (language-based or visual) collected that conveys salient interpretations (Saldaña, 2016). Similarly, coding as part of the analytical process in answering the central research questions involves searching data collected and tagging the key elements (Rubin & Rubin, 2012). Thus, coding is an important aspect of data analysis in qualitative research. As Ravitch and Carl (2016) pointed out, the coding process to make sense of data collected is part of the broader analytic processes in qualitative research. As part of the analytical process that involves coding, a researcher must prepare and layout the transcripts, field notes, memos as well as any other related documents (Rubin & Rubin, 2012; Saldaña, 2016) for analysis.

Based on the overarching phenomenological analysis steps by Moustakas (1994), the data organizing, and coding procedures began at the reduction phase. The interview audio tapes were transcribed using the verbatim technique and the field notes using the summative technique. Transcription was done using Rev, a transcription service. I validated the accuracy of the transcripts by listening to the audio recordings and going through each statement simultaneously. With the transcribing technique, the interview recording is converted verbatim into a paper or word document (Rubin & Rubin, 2012).

The summative technique involves summarizing the fieldnotes and contents in the documents without verbatim transcription (Halcomb & Davidson, 2006).

After organizing the data, the coding method involved In Vivo. The In Vivo coding method is well suited for verbatim interview transcripts for faithfulness to participant's perspectives (Saldaña, 2016). In addition, focused coding was used as a follow-up to the first cycle In Vivo. The focused coding was appropriate for generating categories or themes from initial codes (see Saldaña, 2016). Thus, the analysis process moved from codes to categories and themes. The coding process was facilitated by basic pen and paper and computer-assisted software.

Most importantly, certain key data organization and analysis elements aligned with the transcendental phenomenological approach to this study as part of the analysis plan. The element of organizing data using verbatim transcription technique in preparation for analysis was consistent with the phenomenological approach as part of its analytical focus that prioritizes closeness to data during analysis and individual experiences in the collective sense (see Moustakas, 1994; Rubin & Rubin, 2012; Sutton & Austin, 2015; Willig, 2014).

The element of coding for thematic analysis to reduce data and create meanings was consistent with the phenomenological approach of reduction through bracketing, comparison, and essence identification (see Patton, 2015). Altogether, In Vivo coding was consistent with the emic perspective in terms of ontological and epistemological paradigms respectively (see Saldaña, 2016), which helped to capture participants' voices in the codes (see Charmaz, 2014).

Software. Computer-assisted qualitative data analysis software (CAQDAS) can be a great way of organizing and sorting large sets of data (Ravitch & Carl, 2016). The use of CAQDAS in research has witnessed an evolution given the tremendous capacity of software running on computers to arrange, facilitate, and communicate massive sets of data for effectiveness (Merriam & Tisdell, 2016). Most importantly, despite the ability of CAQDAS to do the heavy mechanical tasks of simplifying the coding process, the researcher must do the main task of thinking through and making sense of the results generated (Merriam & Tisdell, 2016). Therefore, the researcher must decide on the specific software tool to use based on the goals and scope of the study as part of the analysis phase.

For this study, the CAQDAS analytical support was the NVivo 12 plus software, designed by QSR international that supports qualitative research (NVivo, n.d.). The software can analyze non-numeric and unstructured data such as interviews, open-ended survey responses, articles, social media, and web contents (NVivo, n.d.). The NVivo software facilitated data organization and analysis, and audit trail in assuring confirmability and dependability (see Houghton, Casey, Shaw, & Murphy, 2013).

Given the size of the data, NVivo 12 plus software supported the organization of codes and themes and associated references to the verbatim transcripts and memos. NVivo 12 plus enabled me to generate word clouds, code tables, and reports. The software enabled the efficient query of concepts, words, and phrases based on their frequency in the word clouds. The connection of codes, categories, and themes across

the individual transcripts was made easier with the software. The software made auditing for corrections and validation more efficient.

Discrepant cases. Addressing discrepant cases involves the strategy of intentionally looking for alternative information that may challenge the expected findings of a study (Merriam & Tisdell, 2016). The demonstration of the treatment of discrepant or disconfirming cases illuminates unique aspects that are inconsistent with the supported patterns of the findings in a study (Patton, 2015). Addressing discrepant cases helps to enhance the credibility of the findings and provide insights for further exploration (Merriam & Tisdell, 2016; Patton, 2015).

Although in treating discrepant cases researchers may have to state the basis for the conclusions related to the disconfirming or discrepant cases, there are no specific procedures for doing so (Patton, 2015). Therefore, the approach for treating discrepant cases in this study involved the constant sense of skepticism in the research process by questioning assumptions, responses, and interpretations in exploring for rival explanations (see Ravitch & Carl, 2016; Yin, 2016).

This skepticism may involve additional data collection and analysis to see if the rival explanations can be supported (Ravitch & Carl, 2016; Yin, 2016). Altogether, the discrepant cases or rival explanations that were not supported were included in the summary of findings to provide for future explorations by other researchers in illuminating better understanding of the patterns while demonstrating credibility and overall trustworthiness of the research (see Patton, 2015; Yin, 2016).

Issues of Trustworthiness

The demonstration of quality is an important aspect of any research process. According to Stewart and Hitchcock (2016), quality can be demonstrated to convey the rigor and accuracy of the research process and findings through the use of some indicators or criteria. In qualitative research, various scholars have used different indicators to convey quality and rigor (Creswell & Poth, 2018; Golafshani, 2003; Ravitch & Carl, 2016; Stewart & Hitchcock, 2016; Toma, 2011). Trustworthiness vis-à-vis credibility, transferability, dependability, and confirmability as constructed by Egon Guba and further expanded in collaboration with Yvonna Lincoln are the widely accepted quality criteria in qualitative research (Houghton et al., 2013; Ravitch & Carl, 2016; Shenton, 2004).

Credibility

The credibility of the research is vital in demonstrating the quality and rigor of the processes, choices, and findings. Credibility encompasses the research design, instrumentation, data, analysis, and findings (Ravitch & Carl, 2016; Toma, 2011). The research must be accurate representations of information obtained in the field from participants and at the same time, accounting for alternative and rival explanations (Patton, 2015; Ravitch & Carl, 2016; Toma, 2011). Credibility is important in qualitative research to convey beyond reasonable doubt the accuracy of the research.

In assuring credibility, the strategies could involve participant validation, peer-debrief, and negative case analysis (Anney, 2014; Tracy, 2010; Patton, 2015; Ravitch & Carl, 2016; Shenton, 2004; Toma, 2011). Therefore, I presented my analyses to

participants for them to give feedback on my interpretations and descriptions of the interview discussions consistent with member checks. As part of the peer debrief, I sought feedback from my research committee in validating the processes and results.

The participant validation and peer-debrief were consistent with the phenomenological concept of communalization. Communalization involves seeking feedback from others regarding analysis that could prompt a further reexamination of prior analysis for newer meanings (Moustakas, 1994). The active search for discrepant or negative patterns during the iterative data collection and analysis phase as well as the use of thick descriptions in presenting the findings enhanced the credibility of this research.

Transferability

Transferability provides the window through which other researchers outside the context of a study could better understand the findings for varied applicability. Since qualitative research is not about the generalization of findings, the goal is to present findings that may be transferable to other contexts (Bitsch, 2005; Ravitch & Carl, 2016). In other words, transferability illuminates the relevance of applying research in another context and enables other researchers to determine such relevancy (Toma, 2011). The goal is to present findings that could potentially be applicable to other broader contexts.

Most importantly, the burden of transferability rests with the audience, and thus, the role of a researcher is to facilitate the transferability of his/her research by the audience (Anney, 2014; Guba, 1981; Toma, 2011). Therefore, part of the strategy for this study to assure and facilitate transferability was to provide thick descriptions of the research goals, contextual information of the setting and participants, data collection, and

analysis procedures in the final report of the study. The thick descriptions will enable the audience to compare and transfer the consideration of contextual factors accordingly (Bloor & Wood, 2006; Ravitch & Carl, 2016; Shenton, 2004; Toma, 2011).

Dependability

Dependability encompasses the stability of the research design, methods, data, findings, and overall processes beyond the completion of the study (Bitsch, 2005; Ravitch & Carl, 2016). Dependability also involves the justification and detailed articulation of the design and method choices consistent with the goals of the study (Ravitch & Carl, 2016). In other words, the presentation of the alignment of the research design and methods in obtaining data that will provide answers to the central research questions.

A crucial strategy for dependability involves audit trails, whereby the researcher makes a detailed record of methodological and interpretive decisions made during the research processes (Houghton et al., 2013; Ravitch & Carl, 2016) available for scrutiny. A researcher can do this recording through a reflexive examination of the research design and data collection phases (Shenton, 2004). Dependability also involves embracing changes in the field and documenting attendant justifications and factors (Toma, 2011). Therefore, the detailed record and description of the justified research design, methods, and procedures assured the dependability of this study.

Confirmability

Confirmability underscores the level at which the findings from a study that provides an in-depth understanding of a phenomenon could be confirmed by others (Toma, 2011). The confirmability entails steps to demonstrate that findings from a study

are a reflection of the experiences of participants and not the product of the researcher's imaginations or biases (Shenton, 2004). Confirmability warrants that a researcher provides audit trails as well as reflexive notes (Houghton et al., 2013).

Since confirmability involves the verification of study's findings in such a way that the researcher's positionality and bias did not affect the interpretation of respondent's opinions (Ravitch & Carl, 2016), I kept a reflexive note for discussing any biases and prejudices in the course of the research process. Also, audit trail was made possible through interview audio tapes and transcripts, and relevant documents.

Ethical Procedures

Taking into consideration the interests of participants and objectively conducting research brings to mind the aspect of ethical procedures. According to Merriam and Tisdell (2016), the goals of research are about creating knowledge that is valid and reliable in an ethical manner. Researchers have a crucial role to play in ensuring the ethical conduct of their study. As Merriam and Tisdell (2016) noted, the ethics of the researcher shape the quality of the study as well. Although individuals have ethic based on moral justifications and backgrounds, ethics in research is about right or wrong based on what has been accepted by the research community (see Babbie, 2017).

Some of the accepted ethical considerations in research include voluntary participation, no harm to participants, anonymity, confidentiality, deception avoidance, and transparency (Babbie, 2017; Ravitch & Carl, 2016). These ethical considerations do have implications for researchers as they design and carry out their studies (Cox, 2016). For this study, the ethical procedures began with an application to the University's

institutional review board (IRB) before data collection and beyond for the approval of my data collection and analysis plans in line with ethical standards and federal regulations. The invitation and consent forms were approved by the IRB with approval number 11-02-18-0670577.

In addressing ethical concerns related to recruitment and data collection I was guided by the principles of permissions, respect, and fulfillment of commitments (see Myers & Neuman, 2007). Participant recruitment and engagement began after getting permission from the IRB to proceed with data collection. Respecting participants meant the provision of detailed information about the purpose of the study without any attempt to deceive. With full disclosure and transparency about the goals of the study, I was able to get participants to agree to participate voluntarily. As part of the ethical consideration in line with the IRB policies, participants that were invited were not part of the protected or vulnerable categories. Nonetheless, the study did not portend harm to the participants and participation was voluntary without any inducements.

In respecting participants, they were made aware of their right to withdraw at any time during the process whenever they chose for any reason. They were not coerced to continue. Further, I assured participants of confidentiality and ensured the interview process was devoid of any perception of power imbalance or expert-learner binary. I respected their knowledge and experiences they provided through their responses. I collaborated with participants through member checking to minimize misinterpretations and deficient orientation biases in addressing challenges related to power imbalance or

expert-learner binary and respecting shared experiences (see Houghton, Casey, Shaw, & Murphy, 2010; Ravitch & Carl, 2016).

Participants signed a consent form that was sent via email with the words "I consent" prior to the interview. The informed consent form included the background of the study, research procedures, risk and benefits, privacy guarantees, and contact information for the Walden University research participant advocate. During the introduction stage on the day of the interviews, participants were given the opportunity to review the consent form once again and withdraw if they so wish. Any questions of concern by the participants about the scope or goals of the study were also discussed transparently.

In fulfilling my commitments to the participants, I limited the level of details in presenting findings that mitigates easy identification of participants, deleted any identifying information from the records or transcripts, and stored the information in secured and encrypted drives (Babbie, 2017; Ravitch & Carl, 2016). The identification pseudo PINS involved the use and combination of demographic letters like M for male and F for female, and interview numbers like 1 for the first interview, number of years in the industry and role. For instance, the first interview of a male participant with 5 years of experience in the industry as a procurement manager will be "1M5PM", a second interview with a female participant with 10 years of experience as a supply manager will be "2F10SM" and so on. Recording and computer devices were password protected, and the data will be stored for at least 5 years consistent with the university's policy. Any paper documents will be shredded, and electronic files will be wiped using a proprietary

software by Bitdefender after 5 years' timeframe. A non-disclosure agreement (See Appendix D) was signed with the transcription service providers for confidentiality.

Summary

The purpose of this study was to explore and describe the perceptions and experiences of supply chain practitioners in the consumer goods manufacturing sector in Nigeria about sustainable supply chain management practices. The research questions focused on obtaining in-depth perspectives from supply chain professionals in the consumer goods manufacturing sector about their experiences in implementing sustainability principles in their supply.

The qualitative phenomenological design was appropriate for this study to provide in-depth contextual insights into the perceptions and experiences of supply chain practitioners. The inclusion criteria for participant selection included a minimum of 3 years of experience in consumer goods manufacturing industry and willingness to participate. A purposive sample size of 21 participants were interviewed until saturation was achieved. The interview format was face-to-face. The interview protocol that facilitated the face-to-face interview was developed and validated.

As part of the data analysis plans, the process was guided by the phenomenological analysis method of epoche, reduction, imaginative variation, and synthesis of essence and meanings. Interview audio tapes were transcribed verbatim and field notes and other documents using the summative technique. The data were coded using In Vivo method to generate themes. Nvivo 12 plus software was used to support the data analysis. In assuring for trustworthiness and quality of the research process,

steps were taken for credible, transferable, dependable, confirmable, and ethical research. The next chapter will highlight in detail the field test procedure, contextual factors of the setting, data collection, analysis, issues of trustworthiness, and results.

Chapter 4: Results

The purpose of this qualitative transcendental phenomenological study was to explore and describe the lived experiences of supply chain practitioners in the consumer goods manufacturing sector in Nigeria about sustainable supply chain management. The study was done to understand the challenges practitioners face in implementing sustainability in their supply chains. The sustainable supply chain management phenomenon involves the focus on the integration of the triple bottom line vis-à-vis economic, social, and environmental considerations within an organization's supply chain from raw materials to the finished product in customers hands (Ansari & Qureshi, 2015; Eitiveni et al., 2017; Jaegler & Sarkis, 2014).

The central research question for this study was the following: What are the lived experiences of supply chain practitioners in implementing sustainable supply chain management practices in the consumer goods manufacturing industry in Nigeria? The development of the central research question of this study was to operationalize the purpose of this study towards actualizing the goal of understanding the attendant challenges to sustainability in the supply chain (see Creswell & Poth, 2018). The focus of the central research question was to uncover and illuminate the essences of the experiences of participants rather than predict relationships (Moustakas, 1994).

In this chapter, I will describe the process and outcome of the field test as well as the research settings, demographics, data collection, and analysis processes. The discussions about the trustworthiness strategies will follow. Next, I will present the

results of the research with the major themes using participants' quotes from the interview transcripts as support and conclude with the summary of the findings.

Field Test

As part of the field test, I received feedback from various experts on the refinement of the interview instrument. The panel included four professors that are experts in researching on the topic of sustainability and supply chain management in developing and emerging contexts. The insights encompassed simplifying the language, making the questions more exploratory, and grouping the questions. As part of the refinement of the interview questions provided in Appendix A, the sustainability concept was broken down in dimensions vis-à-vis social, environmental, and economic in the questions for better understanding and in-depth responses from participants.

Suggestions were made to include follow up questions about sustainability policy, strategy, and compliance consistent with the scope and goals of the study. Follow- up questions and probes related to sustainable supply chain compliance and impacts on organizational performance as well as individual and organizational initiatives in driving sustainability in the supply chain were included. Overall, the interview questions were reevaluated against the purpose and central research question of this study to assess consistency and eliminate the unnecessary ones.

Research Setting

Participants that volunteered to take part in this study were supply chain professionals working across the various supply chain roles. The manufacturing organizations at which the participants currently work cut across multinational

corporations and local firms with no international parent company. Given the one-on-one interactions with participants and some of them at their places of work, there was no sign of personal individual dispositions or countenance that would suggest any influence on the participants in their responses to the interview questions.

Broadly speaking, this study was conducted in a developing economy, Nigeria. There are economic issues that are affecting the nation as well as political tensions in consideration of the upcoming general elections. The debates surrounding economic, security, and regional political issues have created tensions across the country. There was nothing that would suggest participants were influenced by these issues in responding to the interview questions. Participants were in good spirits and openly and freely engaged during the interview sessions. As such, nothing was observed to the extent of influencing the interpretation of the results of the study.

Demographics

For this study, almost all the participants that volunteered were men. Just one female professional volunteered. There was no deliberate gender criterion for participation. I interviewed participants based on their willingness to take part in the research having met the major inclusion criteria of a minimum of 3 years of experience in the consumer goods manufacturing sector in Nigeria. The number of years of the relevant professional experiences of practitioners in the industry was between 5 and 20 years.

The organizational positions of the participants cut across senior and midlevel positions. Their titles included consultants, managers, supervisors, and executives. The

age range of the participants was between 20 and 50 years. All the participants communicated in fluent English as their first language and there was no need for translations. In terms of college education, eight of the 21 participants had obtained a bachelor's degree in various fields. On the other hand, 13 of the 21 participants had a master's degree as shown in Figure 3 below.

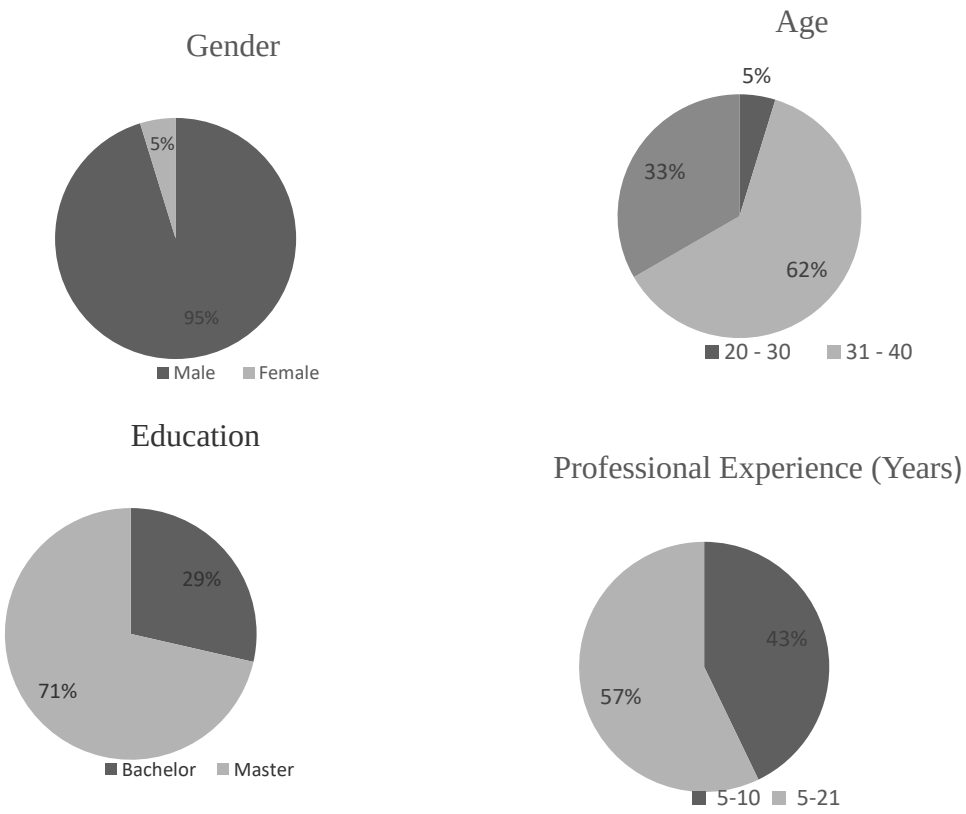

Figure 3. Demographics

Data Collection

In this study, qualitative data were collected from a total of 21 participants using a semistructured interview protocol as shown in Appendix B. The interview protocol contained 10 open-ended questions, several follow-up questions, prompts and opening and closing remarks. The semistructured interview instrument ensured that participants

were asked similar questions and helped to achieve saturation (see Fusch & Ness, 2015; Guest et al., 2006). Also, the epoche phase for reflecting and bracketing preconceived worldviews and biases during data collection and analysis enhanced the efforts towards achieving saturation by focusing solely on the perspectives of participants (see Bernard, 2012; Fusch & Ness, 2015). I initially interviewed 18 participants and conducted an additional set of three interviews for saturation taking the total number of participants to 21. Data collection was done between November 21st, 2018 and December 23rd, 2018 after the institutional review board approval.

As the primary instrument for data collection in this qualitative study, the supporting instrument used was the interview protocol. The face-to-face interviews were conducted in Lagos, Nigeria. Participants chose the meeting places for the interviews that were convenient for them including their private offices and conference rooms. I interviewed different participants every week until the data collection was complete. The duration of the face-to-face interview sessions was between 30 to 75 minutes. Participants were allowed to reflect as best as possible on their experiences and interject during the questioning for clarity.

Password protected audio-recording devices were used to capture the interview conversations. All the participants agreed to be recorded. This recording process enabled me to pay more attention to the participants during the discussions and take fewer notes. This attention to what the participants were saying allowed me to respond with the appropriate follow up questions and avoid repeating questions already answered.

The taped interview sessions also facilitated the accurate verbatim transcription of the discussions for effective transcendental phenomenological analysis.

The semistructured interview protocol enabled me to take down important notes as the interview progressed. The protocol was used to summarize salient points and reflexive thoughts at the end of every interview session. Of course, the logistics of going to meet up with participants and keep to time was challenging as expected given the nature of the location. Overall, there were no unusual circumstances encountered in the data collection process. No variation in the data collection plans as described in Chapter 3 as the snowball strategy supported the first plan of getting the first few participants using my social network.

Data Analysis

The analysis for this study was driven by the transcendental phenomenological method as laid out by Moustakas (1994). As a first step, the data collected were organized. Each audio data was uniquely named and organized in the Windows folder as well as the interview protocol that served as the field note. The audio recordings were uploaded to the transcriptionist's website for verbatim transcripts. Obtaining verbatim transcripts of interviews for analysis is aligned with the phenomenological approach of staying close and true to the words of the participants (see Moustakas, 1994; Rubin & Rubin, 2012; Sutton & Austin, 2015; Willig, 2014).

The steps for data analysis involved the epoche phase, phenomenological reduction, imaginative variation, and synthesis of meanings and essences (Moustakas, 1994). The phenomenological method focuses on the meanings of lived experiences as

they appear in the world through unraveling and reflective questioning of the various sources of the things or events (Sokolowski, 1999; Van Manen, 2014). As Moustakas (1994) noted, the facts that underscore the descriptions for essences must originate directly from participants themselves.

I began the analysis with the epoche process of setting aside prior knowledge from my professional experiences and literature review. I suspended whatever judgments or positions I had during the reflection. I had to be open, honest, and reflect on what I knew and put those ideas aside as I began the analysis to develop a new understanding from the perspectives of others as presented. As Moustakas (1994) noted, the epoche process allows for the advantageous clearing the mind of preconceived biases to enable the genuine embrace of what appears. Although a complete epoche is rarely achieved (Moustakas, 1994), I continued to take a pause and step aside as the analysis unfolded whenever biases reawakened in my mind to clear my thoughts.

After the epoche phase, the phenomenological reduction followed. I reviewed each transcript while listening to the audio tapes all over again to verify the accuracy of the transcription. The analytical coding began at this stage with bracketing the process by focusing on the topic and central research question of the study (see Moustakas, 1994). I began analyzing each transcript in this reduction phase to arrive at textural descriptions of the experiences presented (see Moustakas, 1994). Every sentence was evaluated equally, and repetitive and overlapping statements were eliminated to arrive at the horizons (see Moustakas, 1994), descriptive codes. This process was facilitated using

Nvivo 12 plus software as well as my pen, paper, and Microsoft Office Suite for notations. All the codes were organized in the Nvivo 12 plus software.

The In Vivo coding method was used in the Nvivo 12 plus software manually to code the data. The In Vivo coding method is well suited for verbatim interview transcripts for faithfulness to participant's perspectives (Saldaña, 2016). I focused on the splitting method for the In Vivo coding for a more detailed line by line analysis for depth (see Saldaña, 2016). This approach is consistent with the transcendental phenomenological reduction of horizonalizing every statement of the participants to arrive at textural meanings and invariant constituents (see Moustakas, 1994). Some of the codes include quality (12M7WS – "So there are areas whereby they need to control the quality, so that we will be ahead of our competitors."); cost (21M7PM – "Make sure that the business keeps its cost of production at the very bearable minimum level."); underage (2M8PAM – "One key thing for us is first in terms of our contractors, they must not use underage [workers]."); and slavery (1M13SCC – "Ensuring that the staff they were using were not slaves, they were paid enough."). Still, in the reduction phase, I focused on "clustering the horizons into themes', and organizing the horizons and themes into a coherent textural description of the phenomenon" (see Moustakas, 1994, p. 196). In doing so, I moved from codes to categories and themes. I grouped similar codes with converging thoughts together under the same node in the Nvivo 12 plus software and thematized the groupings using concepts from the conceptual framework as well as new themes that inductively emerged. An example of a theme was *sustainability performance* that had *economic sustainability practices* as the category with codes (quality and cost).

The textural descriptions as the outcome of the reduction phase focus on the *what* of the experiences (Moustakas, 1994). The textural description involved using the participants own words to describe their experiences about sustainable supply chain management practices presented in the results section below.

The next step was the imaginative variation with a focus on the *how*, the underlying factors that make the experiences what they are (Moustakas, 1994). The goal is to develop the structure that accounts for the phenomenon (Moustakas, 1994). I relied on my imagination to develop structures to the textural experiences based on the information presented. In doing so to arrive at the structural *how,* I considered possible underlying meanings, contexts, and exemplifications of the textural descriptions (see Moustakas, 1994).

The final step was the synthesis of meanings and essences that involved the generation of a statement through the integration of the textural and structural descriptions (Moustakas, 1994). To arrive at the essences, I fused the individual textural experiences for a composite description. In the same vein, I integrated the individual structures to arrive at the composite structural descriptions. These composite descriptions were synthesized to create the essence of the phenomenon under study.

Overall, discrepant cases were identified during data collection and explored further. The cases involved participant 5M11SCD arguing that the environmental aspect of sustainability needs more attention currently in the industry. Also, participant 1M13SCC believed that local firms do not really consider sustainability in their supply chains unlike multinationals corporations with guidance from their parent companies

abroad and sustainability is more defined in the consumers good manufacturing sector than in the telecoms sector. These were valuable cases that were further explored and described in the analysis section below.

Evidence of Trustworthiness

The emphasis on the trustworthiness of qualitative research cannot be enough. As discussed in Chapter 3, taking steps to assure the trustworthiness of research is important to show the rigor and accuracy of the process (Stewart & Hitchcock, 2016). Credibility, transferability, dependability, and confirmability as developed by Guba are the most widely used criteria for assuring the trustworthiness of qualitative research (Houghton et al., 2013; Ravitch & Carl, 2016; Shenton, 2004). The considerations of these trustworthiness criteria underscore the overall quality of the research process and findings. In this study, I implemented trustworthiness strategies using the criteria below.

Credibility

The credibility criterion is vital to convey the accuracy of the findings from the research. There should be indications to show that the findings accurately represent and convey the information obtained from participants in the field (Ravitch & Carl, 2016; Toma, 2011). In this study, the credibility strategies I implemented include member checks, peer debriefing, and exploration of discrepant cases. The analyses of the interview transcripts were sent to all participants for review and validation. Committee feedback as part of the peer debriefing contributed to the validation process. Discrepant cases were further explored during data collection and analysis and included as part of considerations for future studies.

Transferability

Transferability is important to enable other researchers to evaluate the findings of the study and ascertain the relevance to other contexts as applicable. Most importantly, qualitative research does not aim for generalizations but transferability (Bitsch, 2005; Ravitch & Carl, 2016). Thus, qualitative researchers are obligated to facilitate transferability since the extent to which elements of a study could be applicable to other context depends on the perceptions of the research audience (Anney, 2014; Guba, 1981; Toma, 2011). To facilitate transferability, I provided thick descriptions about the data collection and analysis while keeping in mind my ethical commitment to the participants by not providing too much easily identifying information.

Dependability

The stability of the research design, methods, data, and findings beyond the end of the research process (Bitsch, 2005; Ravitch & Carl, 2016), as well as the documentation of the justification of the design and method choices (Ravitch & Carl, 2016), are vital. Therefore, in implementing dependability strategies in this study, I provided detailed justifications for my research design, methods, and procedures. Although there were no significant changes during data collection in the field and analysis, I documented the research process and reflexive thought in a journal.

Confirmability

Confirmability is vital to convey the trustworthiness of the research. Through confirmability strategies, the researcher can demonstrate that findings from a study reflect the experiences of participants and not the product of the researcher's imaginations or

biases (Shenton, 2004). Further, confirmability strategies demonstrate that the researcher's bias did not impugn the participants' opinions (Ravitch & Carl, 2016). As part of the confirmability strategies implemented for this study, I kept reflexive notes as part of my epoche process. The interview audio and transcripts support audit trails. Further, the member checks procedure provided additional assurances for confirmability.

Study Results

The research question for this study focused on the lived experiences of supply chain practitioners in the consumer goods manufacturing sector in Nigeria in implementing sustainable supply chain management practices. Figure 4 shows some of the most frequently used words. The description of their lived experiences encompassed the sustainability performance, relationships, stakeholder engagement, underlying elements, barriers, context, and broader mindsets. The thematic outcomes are as follows.

Figure 4. Word frequency query results.

Table 1

Sustainability performance and management

Theme 1: Sustainability performance and management		
Categories		Participants
Social practices	Human rights, health, and safety considerations such as slavery, abuse, and employee wellbeing.	1M13SCC, 2M8PAM, 3M12SCC, 4M14SLM, 5M11SCD, 6M12SCE, 7M6IO, 8M21DCM, 9M20PM, 11F10PM, 12M7WS, 13M13PM, 19M6PM, 20M7PM, 21M7CM
	Community engagement and involvement	2M8PAM, 6M12SCE, 7M6IO, 14M13RD, 16M10SCM, 17M11OCM, 19M6PM, 20M7PM, 21M7CM
Environmental practices	Air, land, and water pollution mitigation	1M13SCC, 2M8PAM, 3M12SCC, 4M14SLM, 5M11SCD, 6M12SCE 7M6IO, 8M21DCM 9M20PM, 11F10PM, 12M7WS, 13M13PM 14M13RD, 15M12TM 16M10SCM, 17M11OCM 18M14PM, 19M6PM 20M7PM, 21M7CM
	Conservation and beautification	1M13SCC, 2M8PAM, 3M12SCC 4M14SLM, 5M11SCD, 7M6IO, 8M21DCM, 9M20PM, 13M13PM, 14M13RD, 15M12TM, 16M10SCM, 17M11OCM, 18M14PM, 19M6PM, 21M7CM,
Economic practices	Optimization, efficiency, quality, and cost-saving practices	1M13SCC, 2M8PAM, 3M12SCC, 4M14SLM, 5M11SCD, 6M12SCE 7M6IO, 8M21DCM 9M20PM, 10M5IO, 11F10PM, 12M7WS, 13M13PM, 14M13RD, 15M12TM, 16M10SCM, 17M11OCM, 18M14PM, 19M6PM, 20M7PM, 21M7CM
Performance management and development	Code of conduct, audit, and monitoring system	1M13SCC, 2M8PAM, 3M12SCC, 4M14SLM, 5M11SCD, 6M12SCE 7M6IO, 8M21DCM 9M20PM, 11F10PM, 12M7WS, 13M13PM, 14M13RD, 15M12TM, 17M11OCM, 18M14PM, 19M6PM, 20M7PM, 21M7CM
	Staff development - training	1M13SCC, 2M8PAM, 3M12SCC, 4M14SLM, 5M11SCD, 6M12SCE 8M21DCM, 9M20PM, 11F10PM, 12M7WS, 13M13PM, 14M13RD, 15M12TM, 17M11OCM,
		18M14PM, 19M6PM 20M7PM, 21M7CM
	Vendor development – training and financial support	1M13SCC, 3M12SCC, 4M14SLM, 5M11SCD, 6M12SCE 9M20PM, 12M7WS, 13M13PM, 14M13RD, 15M12TM, 17M11OCM, 18M14PM, 19M6PM, 20M7PM, 21M7CM

Sustainability performance and management. Responses from all participants about their experiences implementing sustainable supply chain management practices showed efforts towards achieving sustainability performance in various ways vis-à-vis

social, environmental, and economic practices. These practices cut across human rights, environmental conservation, and quality materials and products.

Social practices. Fifteen of the 21 participants mentioned human rights, health, and safety considerations such as slavery, abuse, and employee wellbeing.

Participant 1M13SCC noted that "Elements for child abuse, ensuring that our farmers were not using children. Ensuring that the staff they were using were not slaves, they were paid enough."

Participant 12M7WS said "The machine and man separation, then the zebra lines, all those ones are to avoid accidents within the warehouse. Also, they go in to check are the staffs making use of the PPE's, that is the personal protective equipment?"

Participant 3M12SCC mentioned that "Under the quality and the HSE policy whereby it says that no any factory should have any roof that has asbestos."

Nine of the 21 participants talked about community engagement and involvement through providing basic amenities such as roads, portable water, schools, clinics, electricity, as well as local employment to create value.

Participant 14M13RD stated that:

> And what that means is that there are a lot of people living within this community. So basic education was provided. Health facilities were set up and of course the people within the environment were gainfully employed. We actually supply power to them for the running of some of the smaller industry and of course some of the homes that are located nearby. We also contribute to make sure that the

roads that leads around the business in and out of the business are heavily supported.

Participant 16M10SCM noted that:

Things like ensuring that, for example in "redacted' ensuring that in the community where our hubs were set up, we tried to employ at least 70% of the youth in the area. It could be casual, sometimes full-time basis on various levels. Send some of them to school, so invest in the education. Adding that value socially to the community.

Participant 20M7PM pointed out that "We build schools, boreholes, we build hospitals at times. We buy drugs, for some of the clinics."

***Environmental practices*.** Twenty out of 21 participants alluded to practices that minimize air, land, and water pollution.

Participant 9M20PM noted that "We brought in equipment that have managed that and been able to collate whatsoever would've gone out as the dust, putting it in that term, and then we trap them and bring them down."

Participant 16M10SCM stated that "We don't ship by air. That's a no-no."

Participant 21M7CM said that "Practically, we tend not to use diesel in our production, but gas, to make sure that there are no dangerous fumes to the environment."

Participant 4M14SLM pointed out that:

For the environment, we ensure that the waste that is been taken out of the factory are reprocessed to the standard before. That's the effluent system. The ETP unit

what they do is they take the waste, take it to the level they recycle it and take it to the level of which they can dispose outside.

Sixteen of the 21 participants also discussed conservation practices as well as the beautification of the environment.

Participant 5M11SCD stated that:

We reduce the level of any product that we think is endangered. Maybe not dangerous to human beings but in endangered, because if you continue to use it, you are going to maybe reduce the biodiversity, because you are just going to kill some animals, and some plant will go extinct.

Participant 17M11OCM noted that:

We've tried to reduce what we ... basically we've got LED lighting. Lighting that are sensible enough to know when you are inside and therefore when you are not it goes off and it comes on only when you are there. Our generators cannot just keep going up every time and all that. We try to have solar.

Participant 2M8PAM stated that "We have daylight all day. We don't have window blinds."

Participant 18M14PM said that "No deforestation. Ensuring that products that we roll out, whether the end-product or the palm produce themselves, are compliant to environmental standards."

Participant 1M13SCC said that "Plant trees to replace the trees that were being cut down to supply us packaging paper."

Participant 14M13RD said that:

> We are very mindful of our affluent water. So, waste water's coming out from the business are not channeled into water ways, rather they are directed into a recycling tank where it is well treated, and we make use of our treated water in different ways.

Participant 7M6IO said that "We have a system that can purify those water. When we have dirty water, the system can turn those water to water that are still okay, that can still be used."

Participant 15M12TM noted that:

> I'm sure you have come down to the site, and you see that. The site is looking very green, and that's part of what we try as much as possible to show that we maintain and sustain whatever we are doing to ensure that we are friendly with the environment.

Economic practices. All the participants talked about some form of optimization, efficiency, quality, and cost-saving practices for long-term profitability.

Participant 16M10SCM noted:

> So, we look at containerization, optimization of containers. So, we only ship 40 foot. Why? Because, what we can carry in a 40 foot, the cost per space or per cubic meter. If it's spread over a period of time, let's say one year, that impact is basically like you're spending less to ship more.

Participant 8M21DCM said:

> So, holding more of the stock here will not be good for the company. So, when we have something that we're holding a very huge stock of so, so items or we have to interact with the deployment to now see how they can deplete it from here and let it be available at the selling points.

Participant 2M8PAM said "Genuine product, because as part of the group of business, we also have a retail pharmacy outlet, so genuine product, quality product, as we promised our customers that our product is 100% guaranteed."

Participant 11F10PM stated that "You know one of the key roles of the procurement team is to ensure they purchase good quality goods at an affordable price."

Performance management and development. For performance management and development at the internal organizational level for employees and externally in dealing with various tiers of suppliers 19 of the 21 participants talked about some forms of a code of conducts, audit, and monitoring system to ensure sustainability compliance.

Participant 3M12SCC stated that "For every supplier, there is the code of conduct for them to follow."

Participant 14M13RD stated that "So that is one way where we have actually put in key performance indicators in the objectives that each and every staff member carries and make sure that that is measured. So, we actually measure it and make sure that everybody contributes."

Participant 18M14PM said that “At regular intervals, audits are also carried out internally and by external bodies as well, to just understand if the process complies with standard.”

Participant 1M13SCC said “We had our auditor come in from the organization, visits the suppliers and do the interview, do all the checks and all that. Go through their records and be sure that they were sourcing their raw materials sustainably from suppliers who were not involved in human rights and all that.”

For staff development, 18 out of the 21 participants confirmed that the organization provided training for staff to achieve sustainability goals. That said, two of the participants noted the insufficient and rare trainings as well.

Participant 4M14SLM stated that “Too much training. Even on sustainability we do training quarterly.

Participant 20M7PM said “They do some online courses on sustainability. This is what we do every year, and at times we do in-house courses too.”

Participant 21M7CM noted that “I think one of the cores of ‘redacted’ is employee development. And they don't retreat from it at all. Employee development is key. Every employee in the various areas that is key to the business are highly, highly trained. Well-trained.”

For vendor development 15 of the 21 participants talked about training as well as providing material and financial investment in some cases as a form of rolling credit with the hope of getting back investment through discounted supplies.

Participant 13M13PM stated that “We do regular sessions where we try to provide refresher courses, more in training, training on how we expect them to buy sustainably and so on. This happens quarterly.”

Participant 18M14PM noted that “We've had cases where we've had to share to them hybrid materials, especially for my farmers, where we've had to share out the hybrid crops for their plantings, supported them.”

Participant 5M11SCD said that “Of course, if you are the supplier of that, we have to carry you along. If you need new machines to do, of course we have to look at how we do it, do we buy the machine and then you reduce it. You start to amortize it from the cost of our materials.”

Participant 15M12TM said:

> But secondly is the way they also say okay, I'm committing this amount of money to buying this equipment. Can you also provide parts of this? Which is also your commitment to it, so in a way, it could be that I'll be paying you back based on the supply that I gave you.

Relationships and broader stakeholder engagement. Nineteen of the 21 participants acknowledged the interrelationship and interdependence among the various organizational functional roles with supply chain for successful sustainability performance. Despite conflicting functional goals, the achievement of the overall organizational sustainability is paramount.

Participant 21M7CM said that:

> Supply chain, as a function, as far as 'redacted' is concerned, they have the core to drive the sustainability more than every other department. And in so doing, they drive every other function, and every other department, to see that whatever happens in supply chain should not be tied to only the supply chain employee, that every other employee is a potential supply chain employee. So, each and every one has a part to play.

Participant 8M21DCM said:

> To some extent I'll say they work together because at the end of the day, supply chain is supply chain. In an organization like this, it's like the father's house called supply chain, and the children that are in there are the manufacturing, the procurement, the distribution, and all the rest of them, and at the end it is the supply chain that has the agenda, and every other person within that chain will key into that particular agenda.

Participant 5M11SCD noted that "The business of delivering our product, is the function of all the department."

Participant 1M3SCC stated that "Everyone had a part to play, and the results were clearly achieved."

Stakeholder engagement. All of the 21 participants understood who their internal and external stakeholders were and described how stakeholders are engaged for sustainability performance. Interestingly four of the participants argued that stakeholders are all equal.

Participant 4M14SLM said:

> In terms of engaging with stakeholders, there is a scheduled meeting on quarterly basis and if there's need to convey, they can signal, they can request for meeting if there's any area of concern. Then we'll come together and resolve it. I will not tell you that we've not had any issue in the past, but all I will say is that it has all been well managed.

Participant 7M6IO stated that "Like some of the things we do is that majorly we try to keep that cordial relationship with our customers. We make sure that we interact with them properly. When you have a proper relationship with them, it can fasten your just in time process."

Participant 8M21DCM highlighted that:

> We have the quality week in which all the agencies, let's say, especially the SON, the NAFDAC that have more in the government regulatory agencies, I think these two have the highest stake in what we do, that cut across all our operations. They were invited for them to come and share whatever it is, whatever their assessments, their requirements, and all those things. So, when we're doing something like the safety week, you'll have people that have to do with safety and environment, the agencies responsible for safety and environment that will come and join us. Yes, annually we'll have at least once or twice we'll have that interactions, all those government agencies.

Through these relationships and engagements, stakeholders are able to communicate, coordinate and collaborate for sustainability performance in the supply chain.

Table 2

Relationships and broader stakeholder engagement

Theme 2: Relationships and broader stakeholder engagement		
		Participants
	Functional interrelationship and interdependence.	1M13SCC, 2M8PAM, 3M12SCC, 4M14SLM, 5M11SCD, 7M6IO, 8M21DCM, 9M20PM, 11F10PM, 12M7WS, 13M13PM, 14M13RD, 15M12TM, 16M10SCM, 17M11OCM, 18M14PM, 19M6PM, 20M7PM, 21M7CM
	Stakeholder engagement-identification and engagement	1M13SCC, 2M8PAM, 3M12SCC, 4M14SLM, 5M11SCD, 6M12SCE 7M6IO, 8M21DCM 9M20PM, 10M5IO, 11F10PM, 12M7WS, 13M13PM, 14M13RD, 15M12TM, 16M10SCM, 17M11OCM, 18M14PM, 19M6PM, 20M7PM, 21M7CM

Underlying factors to sustainable supply chain management performance. Participants discussed some underlying factors of sustainability performance such as culture, innovation, transparency, risk management, strategic planning, and top management. These factors were critical to the implementation of sustainability in the supply chain.

***Culture*.** Twenty out of the 21 participants alluded to the importance of culture in driving sustainability whether as a core organizational value or mission in the supply chain.

Participant 15M12TM stated that “Culture is very, very, very, very, very, very important. Very, very critical. So, if we do not have the right mindset to sustainability, there is no way it can happen. So, culture is very key.”

Participant 3M12SCC said that “I will say it's going to be the backbone of it, so without it, if there's no value, if there is no culture, everybody will just go, ‘don’t worry.’”

Participant 21M7CM noted that:

> When I say values, I relate it to culture, the business culture. And they do a whole lot. They drive sustainability because they help to manage the process flow. So, we have safety, we have 'act as an entrepreneur', we have 'collaboration, through trust', and we have 'keep it simple'. These are core business values. And they are the culture of the business.

Participant 9M20PM said that "we have core values, and those core values drive what we do."

Transparency. Fifteen out of the 21 participants talked about the transparent engagement of stakeholders through open information sharing and reports about processes and collaboration for sustainability performance.

Participant 3M12SCC stated that "When you are sending a mail, the mail would contain the email of the respective people that are supposed to have knowledge about what you are talking about."

Participant 4M14SLM noted:

> For me there is a report I share with the 'redacted' team on quarterly basis. On information sharing to ensure that what I procure am able to trace it. So, I share this location the source. For sustainability, everything we have here on the system that everybody can log in from his own room.

Participant 17M11OCM said that "We try to report these in our annual report which are not secrets."

Participant 18M14PM noted that “The process is as transparent as it could be. They are clear, they are well documented, and there's nothing, there's no dark secret about it. These are processes that are clear. And, in some cases, they are even covered by the media.”

Innovation. 12 out of the 21 participants talked about innovative ideas related to materials and packaging for sustainability performance.

Participant 1M13SCC stated that:

> The solution around seeds. When wheat became a big problem because of the attendant cost of importation and all the other things that came with it, we were tasked to find an alternative to wheat. And that was how the whole sorghum initiative came about.

Participant 18M14PM mentioned “Hybrid materials.”

Participant 5M11SCD said:

> The wrapper, you take it and throw it away it goes into the environment. It's not biodegradable. It stays there forever. So, what we are trying to do, is to reduce thickness of that. So, by reducing the thickness of that, we are already taking a more sustainable way.

Participant 16M10SCM noted that “Something I also wanted to mention is the carton size. We realize that for the new newer models, the carton sizes are much smaller for the same size, which means the containers can take far more.”

Risk management. Seventeen out of the 21 participants argued that sustainability risk management considerations were central to practices for sustainability performance.

Participant 1M13SCC said that “We had our auditor come in from the organization, visits the suppliers and do the interview, do all the checks and all that. Whatever reputational damage would come about from their practices, were going to affect us directly.”

Participant 4M14SLM stated:

> We do risk assessment for our mitigation plan for everything we are doing. Including even my job, there is a risk assessment for each job... from there we also put, they call business continuity plan in place. Then we look at again, say the entire process we run. There is a risk assessment to check how we are complying with what we've signed into.

Participant 20M7PM noted:

> Environmental, we also have to consider a lot of things in term of not affecting our own business. You don't want to affect the community at which you work negatively. We have to ensure that we, abide by the laws of the government and also the community at which we are operating because if it is not properly treated, the government may sanction business.

Participant 2M8PAM said:

> Risk management considerations, yes, we do that. We give cognizance to risk management. However, it's also case by case. Because different buyers, or different purchases comes with their own peculiarities. What I think one major area that we always try to see how we can manage the risks, is when it comes to imports. When it comes to imports, and also when it comes to things that is

highly regulated. Where we have government agencies that regulates those items, so we don't want to receive sanctions, because certain things are not being done.

Strategic planning. Eighteen of the 21 participants alluded to the strategic long-term nature of sustainability planning that is cascaded down for implementation.

Participant 6M12SCE said that "Sustainable supply chain management planning is done strategically. In that, it's a long-term process. It's not just a short-term work. In the organization we are looking at a long-term process that has to be sustainable."

Participant 5M11SCD noted that "sustainability is part of a business. But sustainability itself is built, sorry, into most of our policies. It's built into our sourcing policy."

Participant 14M13RD stated "The planning for me it's fully integrated in our overall business planning, our system. So, it's actually a bit of ... It's one of those checks on all our plans to basically look at what is the plan around the key projects that we are working on?"

Participant 15M12TM said "So from there, it gets cascaded down. Leadership signs off to that. It gets cascaded down to supply chain."

Participant 20M7PM noted "they always cascaded the plan to the office at the beginning of the year."

Eight of the 21 participant acknowledged the importance of planning.

Participant 3M12SCC said:

Planning is very, very important. Before you can do any planning, you first of all look at where you are coming from, where you are and where you are going. It is

> where you are going, that is what you want to plan for. But the tools you will use to do the planning is where you are coming from, where you are going. These two will assist you to plan on where you are going.

Participant 2M8PAM noted "Planning is important, and not just planning. And also creating how to implement that plan along the line."

Participant 15M12TM said "Yes. Very, very, very. There's a normal saying that If you fail to plan, you are planning to fail. So, plan is very, very, very, very important."

Top management. Twenty of the 21 participants mentioned and highly rated the critical role of top management in helping to drive sustainability whether for planning or driving the culture of transparency, innovation, and risk management to achieve sustainability performance.

Participant 15M12TM said:

> So, for this organization, we have leadership that I would say is hands-on. Leadership that is dynamic in both operation, and strategic, engagements for the business. So, I would say right from the top. Right from the managing director down to the functional directors. They are hands-on. They provide necessary support to these sustainable developments.

Participant 18M14PM said "Without mincing words, I will say, clearly, that the support has been 100%."

Participant 4M14SLM noted that:

> Before you can practice sustainable supply chain, you ... if it is not out of the company policy, I cannot do it alone. Because the organization that is the

leadership of the business must sign into it. It's a buy-in process that we are committed to do this thing. So, if the commitment is from top to down, then it will be part of the organizational ... of the company culture.

Participant 2M8PAM noted:

The reason why I would say it's very high is because to a very large extent, it has been attached to the company's good will or to the company's image. We know that, or the top knows that, should we go wrong in this area, and we know in the social media age, it gets into the news, so complain as this and that. Definitely you know that it's not so..... Top management do take it seriously.

Overall, these factors fall under the broader categorization of drivers and enablers of sustainable supply chain management practices.

Table 3

Underlying factors to sustainable supply chain management performance

Theme 3: Underlying factors to sustainable supply chain management performance		
Categories		Participants
Culture	Core organizational values or mission.	1M13SCC, 2M8PAM, 3M12SCC, 4M14SLM, 5M11SCD, 6M12SCE 7M6IO, 8M21DCM 9M20PM, 11F10PM, 12M7WS, 13M13PM, 14M13RD, 15M12TM, 16M10SCM, 17M11OCM, 18M14PM, 19M6PM, 20M7PM, 21M7CM
Transparency	Open information sharing and reporting.	1M13SCC, 2M8PAM, 3M12SCC, 4M14SLM, 6M12SCE, 7M6IO, 8M21DCM, 12M7WS, 13M13PM, 14M13RD, 15M12TM, 17M11OCM, 18M14PM, 20M7PM, 21M7CM
Innovation	Materials and packaging.	1M13SCC, 3M12SCC, 4M14SLM, 5M11SCD, 6M12SCE, 7M6IO, 13M13PM, 14M13RD, 16M10SCM, 17M11OCM, 18M14PM, 20M7PM
Risk management	Company reputation, sanctions, and business continuity.	1M13SCC, 2M8PAM, 3M12SCC, 4M14SLM, 5M11SCD, 6M12SCE 9M20PM, 10M5IO, 11F10PM, 12M7WS, 14M13RD, 15M12TM, 16M10SCM, 17M11OCM, 18M14PM, 20M7PM, 21M7CM
Strategic planning	Long-term and top-down.	1M13SCC, 3M12SCC, 4M14SLM, 5M11SCD, 6M12SCE, 9M20PM, 10M5IO, 11F10PM, 12M7WS, 13M13PM, 14M13RD, 15M12TM, 16M10SCM, 17M11OCM, 18M14PM, 19M6PM, 20M7PM, 21M7CM

table continues

Top management	Driving planning, culture of transparency, innovation, and risk management	1M13SCC, 2M8PAM, 3M12SCC, 4M14SLM, 5M11SCD, 6M12SCE 7M6IO, 8M21DCM, 9M20PM, 10M5IO, 11F10PM, 12M7WS, 13M13PM, 14M13RD, 15M12TM, 17M11OCM, 18M14PM, 9M6PM, 20M7PM, 21M7CM

Barriers. Participants described some barriers based on their experiences that affect the implementation of sustainability in the supply chain as well as contextual factors. These contextual factors appear to underlie some of the barriers participants experienced in their efforts to implement sustainability in the supply chains of their organizations.

Cost. Twelve of the 21 participants described the cost of implementation that affects profitability, the bottom-line since some sustainability initiatives require financial investments.

Participant 1M13SCC said:

> There is also the element of costs, if delivering that objective is going to cost much more, than the organization is willing to invest in at that time, you might have a situation where companies choose not to expand in certain areas, are not to throw certain parts of their portfolio because they can't meet sustainability targets for the area.

Participant 5M11SCD noted that "Yes, because I mean, generally if you want to be sustainable, you want to really take sustainable seriously your product right now may be more expensive."

Participant 14M13RD stated that "It comes with a very huge cost. So, such things can actually lead to a huge pain point."

Participant 18M14PM said that “So, as a business, I'm already beginning to think in that light, and I've already taken steps to have a supply chain, the material supply chain for plastics, that is biodegradable. Okay. This is coming at an extra cost to me.”

Government. Fourteen of the 21 participants talked about the issues related to unclear or outdated policies and irregularity with the regulatory agencies that affect sustainability implementation.

Participant 1M3SCC said “When the directives from regulatory bodies are vague, or not clear, or introduce confusion, you struggle with achieving sustainability guidelines. So as far as you are concerned, in Nigeria, I am not aware that either from the government or from the regulatory bodies that there are clear cut sustainability requirements”

Participant 12M7WS noted that “The first barrier is coming from the government. That is their policy. Especially when it comes to the issue of sustaining our supply chain, sometimes they are enactments that are impromptu.”

Participant 17M11OCM said “We've got very archaic, outdated laws we do not have standards for most of these things.”

Participant 2M8PAM said:

> Okay, so with respect to the regulators, there's one major challenge we normally have. Because in the name of sustainability, environment and things, you see regulators acting in a certain direction with a particular complaint or your competitor. When is your turn for them to take a decision, they are taking a decision that is 100% different to what decision had been taken.

Organizational deficiencies. Nine of the 21 participants discussed internal deficiencies such as poor management drive, internal stakeholder misalignment, poor communication, and training.

Participant 3M12SCC said "The other aspect of it is if the people at the top does not key into it. If top management does not key into it, which means they don't have policy. If the company doesn't have annual goals, targeted goals, it will surely affect the company."

Participant 1M13SCC noted "When you see the tone from the top as being lip service, that in itself defeats the purpose. It deflates the energy of the team who are ready to drive and deliver on that objective."

Participant 4M14SLM said "The challenge is the alignment of all the stakeholders within the business."

Participant 21M7CM stated that "Change is one very key factor that is permanent. And the docile nature of some employee, not moving in line with the business dynamics, is a strong factor."

Participant 5M11SCD said "Most time, people focus too much on what on what they are trying to achieve, that they forget to communicate it to the stakeholders that will help them achieve it."

Participant 6M12SCE said "So another thing is lack of training, when stakeholders are not being trained. It will barricade the success of sustainability."

Suppliers' issues. Seven of the 21 participants alluded that supplier issues related to capability, traceability, transparency, and force majeure that affected the sustainability performance in the supply chain.

Participant 2M8PAM said "Some vendors are not able to meet up with the standard."

Participant 1M13SCC noted:

> For regions where it is difficult to track, to find items from suppliers and agents where you really cannot physically manage their second or third-tier, you will struggle with how you track. And that becomes ... You end up getting surprises, so in my view, all of those elements add to why you would find it difficult to drive some of those targets.

Participant 4M14SLM said "Personally myself, I'm afraid, because I've seen suppliers that are not trustworthy. Some will tell you, 'oh, you said we should not burn, and we don't have money to get the tractor excavation.' So, we give money okay get this, rent it. So, at the end of the day they will divert the fund."

Participant 7M6IO noted "There are some products that might be supplied, when you supply them, you'll see SON stamp in them, but when you do a test on them you'll find out that those materials are not really of quality, they're not really of standard."

Participant 18M14PM said "So, force majeures like that also happen, and they take their toll on my supply chain as well, on my sustainable supply chain."

Context. Eighteen of the 21 participants talked about various contextual factors that encompassed difficult economic situations for consumer choices, which in turn

encourages substandard and counterfeit products; lack of awareness; corruption; poor infrastructure; lack of materials; machinery; technology; and expertise.

Participant 5M11SCD stated that:

> It's only that in Nigeria we have not developed to that stage where I'm going to buy product A, which is more expensive than product B. Though, it is produced in a sustainable way ... because now, the economy of Nigeria, people more importantly want to feed well before they think about features.

Participant 16M10SCM said "I like to relate it with the hierarchy by Maslow. So, nobody thinks about the higher things when you have not taken care of the basics."

Participant 15M12TM stated that:

> And a typical man out there wants something in quote we say 'affordable'. You understand? So, if you see something that is a bit lower than what you buy before you want to go for that. Yeah. So that's the ... So, when you talk about the local factors, local competition is there. Local in terms of government, you have some people that smuggle products in.

Participant 17M11OCM said "People are not sensitive or conscious of the effect of the decisions we make on the environment and on people that we work with basically."

Participant 20M7PM noted "Lack of awareness. When people don't know or are not aware of what the program is all about, or what the message is all about. Is also a factor."

Participant 9M20PM said infrastructural deficiency also has effect on us, which has also increased our cost of doing business."

Participant 3M12SCC noted “Lack of technological advancement, as a nation we have is affecting us.”

Participant 2M8PAM said “Local factors also include expertise. Expertise in driving procurement.”

Participant 18M14PM said “Now, how these materials are eventually sourced or gotten, is where this sustainability challenge comes in, because sometimes, some of those materials also are not ... Some are not readily available.”

Table 4

Barriers

Theme 4: Barriers.		
Categories		Participants
Cost.	Financial investments and ROI.	1M13SCC, 2M8PAM, 3M12SCC, 4M14SLM, 5M11SCD, 6M12SCE 9M20PM, 13M13PM, 14M13RD, 15M12TM, 17M11OCM, 18M14PM
Government.	Unclear or outdated policies and irregularity with the regulatory agencies.	1M13SCC, 2M8PAM, 3M12SCC, 6M12SCE, 7M6IO, 9M20PM, 11F10PM, 12M7WS, 13M13PM, 15M12TM, 16M10SCM, 17M11OCM, 18M14PM, 19M6PM
Organizational deficiencies	Poor management drive, internal stakeholder misalignment, poor communication, and lack of training..	1M13SCC, 3M12SCC, 4M14SLM, 5M11SCD, 6M12SCE, 8M21DCM 17M11OCM, 20M7PM, 21M7CM
Suppliers' issues.	Capability, traceability, transparency, and force majeure..	1M13SCC, 2M8PAM, 4M14SLM, 7M6IO, 12M7WS, 17M11OCM, 18M14PM, 19M6PM
Context	Economic conditions, poor infrastructure, corruption, lack of materials, machinery, technology, awareness, and expertise.	1M13SCC, 2M8PAM, 3M12SCC, 5M11SCD, 6M12SCE, 8M21DCM 9M20PM, 10M5IO, 11F10PM, 12M7WS, 13M13PM, 14M13RD, 15M12TM, 16M10SCM, 17M11OCM, 18M14PM, 19M6PM, 20M7PM

Composite Textural Descriptions

The composite textural description captures the collective experiences of the participants in implementing sustainable supply chain practices. For sustainability performance in the supply chain, practitioners implemented social practices protecting

human rights and the well-being of people and the community. For environmental practices, considerations were given to less pollution and conservation of resources. Also, economic practices involved managing cost and quality.

For performance management and development, internal and external audits and monitoring were carried out to ensure adherence to processes and policies for sustainability performance. Relationships and broader engagement with stakeholders involved the collaboration with internal functional roles and external stakeholders like regulatory agencies, community leaders, and customers in implementing sustainability practices.

The implementation of sustainable supply chain management practices was not without attendant challenges. The challenges encompassed internal barriers as well as external barriers in achieving successful sustainability performance. The challenges include associated costs with implementing sustainability practices, weak or absent government policies, poor regulations, organizational deficiencies, and suppliers' issues.

Composite Structural Descriptions

The composite structural description is about the collective experiences on the underlying factors and contexts that shaped the textural experiences. Participants indicated that organizational culture was based on values and was important to sustainable supply chain management practices. A culture of innovative ideas for the development of the essentials necessary for meeting sustainability targets was vital. The transparent engagement of stakeholders through open communication and reporting was key.

The aspect of risk management was also a factor to avoid sustainability risks and thus, drive sustainability considerations in the supply chain. Participants alluded to the fact that strategic planning was crucial to the implementation of sustainability practices. In all these, the role of top management championing strategic plans, and the culture of innovation, transparency, and risk management was critical.

With respect to the broader factors underlying some of the challenges, the economic conditions in the country, poor infrastructure, and corruption put cost pressures on firms investing so much in trying to be sustainable. The lack of awareness, technology, materials, and expertise exacerbate the internal deficiencies of firms and decreases the chances of adopting sustainable initiatives. Lack of awareness also makes it challenging for consumers to appreciate the sustainability efforts of firms in terms of the willingness to pay more.

Textural-Structural Synthesis

Supply chain practitioners in the consumer goods manufacturing sector in Nigerian implement sustainability practices. The implementation was guided by organizational policies and guidelines. These organizational policies and guidelines were designed by top management through strategic planning that considered local and international regulations. The sustainability practices included human right protections, minimization of environmental pollution, quality and costs considerations for sustainability performance.

In implementing sustainability practices in the supply chain, the interrelationships and interdependence among functional roles in the organization and the broader

engagement of external stakeholders were vital. Through these relationships and engagements, stakeholders were able to communicate, coordinate and collaborate for sustainability performance in the supply chain. To ensure compliance audits of suppliers were done using the code of conducts and the performance review of employees tied to key performance indicators for sustainability performance.

The underlying factors that underscored these sustainability implementations were planning, culture, transparency, innovation, and risk management. These were reinforced by extraordinary top management support in driving strategic planning, fostering a culture of values, openness, innovation, and the proactive management of sustainability risks. The experiences were not without some attendant challenges such as cost and government policies and regulations, and supplier issues that impacted implementation. The contextual factors underlying the challenges included economic conditions in the country, lack of awareness, expertise, infrastructural, and technological deficiencies.

Discrepant cases

Participant 5M11SCD posited that environmental issues are of greatest importance right now and requires more attention. He said:

> So environmental sustainability is the main issue, right, so if we do not delineate it, and talk about that, we will talk about economic sustainability is more like regular business that we do. You understand? So, environmental is what, is where people need to get a bit more serious.

Despite factoring this notion into the analysis process by initialing coding it, there were no additional discussions from other participants that corroborated the assertion. In

fact, from the analysis, almost all of the participants described various forms of environmental sustainability practices in their supply chain

Similarly, participant 1M3SCC argued that sustainability in the consumer goods manufacturing sector is "more defined than in telecom company" [as well as] "companies that are local that don't have these objective sets from any developed company, they will not even care about it." Although these cases were not confirmed after the analysis, I would not entirely discount these assertions given the scope of this study.

Summary

In this chapter, I discussed the analysis of the data collected and presented the results of the findings to the central research question of the study. The findings show that supply chain practitioners in the consumer goods manufacturing sector implement sustainability practices that cut across social, environmental, and economic considerations. The findings also show that sustainability in the supply chain requires collaboration and coordination among internal and external stakeholders for sustainability performance.

Participants discussed the critical role of top management in driving sustainability practices in the supply chain through strategic planning, culture, transparency, innovation, and risk management. Regarding the challenges in implementing sustainability in the supply chain, participants shared experiences about cost, government policies and regulations, organizational deficiencies, and suppliers' issues. These issues as the participants described were contextually driven by the economic conditions of the

country, lack of awareness about sustainability issues, unavailability of materials, expertise, infrastructural and technological deficiencies.

In the next chapter, I will interpret the findings in the context of the repertoire of knowledge in the field as discussed in the literature review in Chapter 2. Also, the analysis of the findings in the context of the theoretical and conceptual framework will be presented. Further, I will discuss the limitations that arose from the conduct of the study, recommendations, and implications for social change and practice. A conclusion about the take-home message will end the chapter.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this study was to explore and describe the lived experiences of supply chain practitioners in the consumer goods manufacturing sector in Nigeria to understand the challenges they face in implementing sustainability in their supply chains. Few studies in the literature have addressed sustainable supply chain management implementation and practice in nondeveloped economies (Ansari & Kant, 2017; Mathivathanan et al., 2018; Rajeev et al., 2017; Silvestre, 2015; Touboulic & Ejodame, 2015). The insights from this study were vital to contextualizing the unique challenges practitioners experienced in their organizations.

The nature of the study was the qualitative transcendental phenomenological approach to exploring the experiences of supply chain practitioners about sustainable supply chain management based on their unique and individual experiences for shared meanings (Moustakas, 1994; Patton, 2015). Individual face-to-face interviews of supply chain practitioners in the consumer goods manufacturing sector were conducted using a semistructured interview protocol.

The key findings were (a) the cost of implementing sustainability initiatives in the supply chain; (b) unclear or outdated government policies and irregularity with the regulatory agencies; (c) organizational deficiencies related to poor management drive, internal stakeholder misalignment, poor communication, and training; and (d) supplier issues involving capability, traceability, transparency, and force majeure are the major challenges they experienced in achieving sustainability performance in the supply chain.

Interpretation of Findings

The findings from this study show that practitioners in the consumer goods manufacturing sector in Nigeria are implementing various forms of sustainability practices. The social practices include community engagement and discouraging the use of child labor and abuses in the supply chain, low wage, and unsafe working conditions. These findings are consistent with the categorizations in the literature review on some of the acceptable social practices in the supply chain (see Boukherroub et al., 2015; Chardine-Baumann & Botta-Genoulaz, 2014; Tajbakhsh & Hassini, 2015). However, the aspect of gender equality as a social dimension (Galal & Moneim, 2016) was not supported in this study. Environmental practices surrounding conservation (renewable energy, recycling, and, biodiversity), pollution (carbon emissions, waste disposal), and economic practices of quality and cost (financial, material cost, operational efficiency) considerations are consistent with the finding in the literature on the characterization of environmental and economic practices in the supply chain for sustainability (see Boukherroub et al., 2015; Chardine-Baumann & Botta-Genoulaz, 2014; Galal & Moneim, 2016).

Past studies have shown the increased interest in the environmental and economic aspects of the supply chain with less attention on the social aspects. Green supply chain management research places primacy on the environmental and economic issues in the supply chain (Ahmad et al., 2016; Luthra et al., 2015). Findings from this study show that more considerations are made towards economic and environmental practices as most of the participants confirmed more practices in this regard compared to social.

Several of the participants for sustainability performance management and development confirmed that the code of conducts, audit, and monitoring systems were in place to ensure sustainability compliance within the organization and for vendors. This finding supports the knowledge in the discipline that performance evaluation was critical to ensuring that sustainability guidelines are adhered to and for evaluating the effectiveness of the attendant sustainability processes (see Ansari & Qureshi, 2015; Turker & Altuntas, 2014).

Studies have found that training and development of staff and partners are critical elements for sustainability in supply chains (Beske et al., 2014; Luthra & Mangla, 2018; Zhang et al., 2018). Most of the participants in this study noted that their organizations provided training for staff and vendors on sustainability practices as well as the investment in the development of vendor capabilities necessary for sustainability performance in the supply chain.

Lu et al. (2016) found in their study that inter- and intraorganizational collaboration enhances social, environmental, and economic performance for firms given the collective responsibility and joint ownership processes. Interorganizational collaboration among firms increases the possibility for capacity building needed for implementing sustainable supply chain management practices (Esfahbodi et al., 2016). Most participants in this study discussed the interrelationship and interdependence among the various organizational functional roles with the supply chain for successful sustainability performance.

Similarly, several of the participants described their internal and external stakeholders and how they are engaged for sustainability performance. These findings extend the knowledge in the discipline about the interrelationships and interdependence among organizational functional roles and broader external stakeholder engagements for sustainability performance. Through these relationships and engagements, stakeholders were able to communicate, coordinate, and collaborate for sustainability performance in the supply chain.

Mariadoss et al. (2016) found that culture was among the orientations of firms that shaped the sustainable supply chain practices of firms. Innovation and transparency are central to the success of sustainability efforts (Dubey et al., 2015). Many participants in this study confirmed the significance of organizational culture, transparency, and innovation in driving sustainability performance in the supply chain which is consistent with the findings in the literature.

Most of the participants in this study discussed the various risk management considerations for proactively implementing sustainability practices in the supply chain to guard against reputational damage, sanctions, supply, and overall business continuity risks. These proactive risk management considerations are consistent with the knowledge in the literature on the importance of risk management strategies in driving sustainability. Turker and Altuntas, (2014) found that risk was a critical factor for focal firms with supply chain operations in developing countries with records of social and environmental issues such as human rights violation and pollution. Similarly, Ahmad et al. (2016) found that effective risk management in material and production processes is necessary

for firms in improving sustainability practices through the mitigation of disruptions and negative impacts.

Participants in this study talked about the importance of strategic planning for sustainability in their organizations that is cascaded for implementation. This notion is consistent with the knowledge in literature. Yang et al. (2017) found strategic planning to be a principal factor that facilitates the implementation of sustainability practices in the supply chain. Supply chain planning is no longer about cost efficiency, but the incorporation of economic and social dimensions in response to concerns from stakeholders (Boukherroub et al., 2015; Zhang et al., 2014).

Meixell and Luoma (2015) found from a systematic review of the literature that top management has significant levels of influence to shape sustainability practices. Top management is critical to championing sustainability vision in the supply chain and providing the necessary tools for implementation (Ansari & Kant, 2017; Ansari & Qureshi, 2015). This study extends the knowledge in literature as many of the participants discussed the prominent level of top management support in driving strategic planning, culture, transparency, innovation, and risk management for sustainability performance in the supply chain.

Participants mentioned some barriers to implementing sustainability in the supply chain such as costs for investing in sustainability initiatives; poor government policies and regulations; organizational deficiencies that include poor management support, communication, lack of training, and commitment; and supplier issues related to capability, traceability, transparency, and force majeure. These findings are consistent

with what other authors have found as barriers to implementing sustainability (see Ansari & Kant, 2017; Chkanikova & Mont, 2015; Kumar & Rahman, 2015; Sajjad et al., 2015). Based on participants' responses, costs, poor government policies, and regulations appear to be the most significant challenges.

The underlying contextual barriers to the various challenges that participants talked about include the difficult economic situations for consumer choices, which in turn encourages substandard and counterfeit products; lack of awareness for both consumers and practitioners; corruption; poor infrastructure; and the lack of materials, machinery, technology, and expertise. These contextual factors put increasing costs on firms if they choose sustainability options. If firms invest in sustainability initiatives, consumers may not be able to reward the company with patronage due to the increased cost of products. The lack of awareness about such sustainability issues and influence are also associated problems with stakeholders (Touboulic & Ejodame, 2015).

These contextual challenges make sustainability implementation much more difficult in such developing economies. These differences in contextual challenges and their attendant added complexities are part of the realities facing global supply chains (Busse et al., 2016; Galal & Moneim, 2016). These findings are consistent with some of the systemic barriers found in Silvestre's (2015) study related to corruption, poor infrastructure, and institutional regulation.

The theoretical and conceptual frameworks for this study provided a central point for the analysis of data collected and the interpretation of the findings. General systems theory was used to explore the interrelationships and interdependence of the various

functional roles in the organization in driving sustainability performance. Stakeholder theory further expanded this systems lens to explore the broader relationships with external players in the supply chain directly and indirectly affected.

The combination of the conceptual perspectives within the overlapping general systems and stakeholder theories provided the integrative and multidimensional view for gaining insights into the phenomenon under study (see Varsei et al., 2014). Based on the findings from this study, most of the participants described the interrelationship and independence among various functional roles with the supply chain in driving sustainability. The broader engagement of stakeholders as a crucial element was also clear through the discussions about stakeholder identification and interactions in achieving sustainability performance.

The general systems lens allowed for the incorporation of different concepts to better understand the phenomenon. With the general systems perspective, the various concepts in this study related to sustainable supply chain management were weaved together for coherence in understanding the experiences of supply chain practitioners in the consumer goods manufacturing sector of Nigeria. The key concepts extracted from the conceptual framework of Carter and Rogers's (2008) and Gupta et al. (2013) include sustainability performance, risk management, culture, strategy, transparency, innovation, and management.

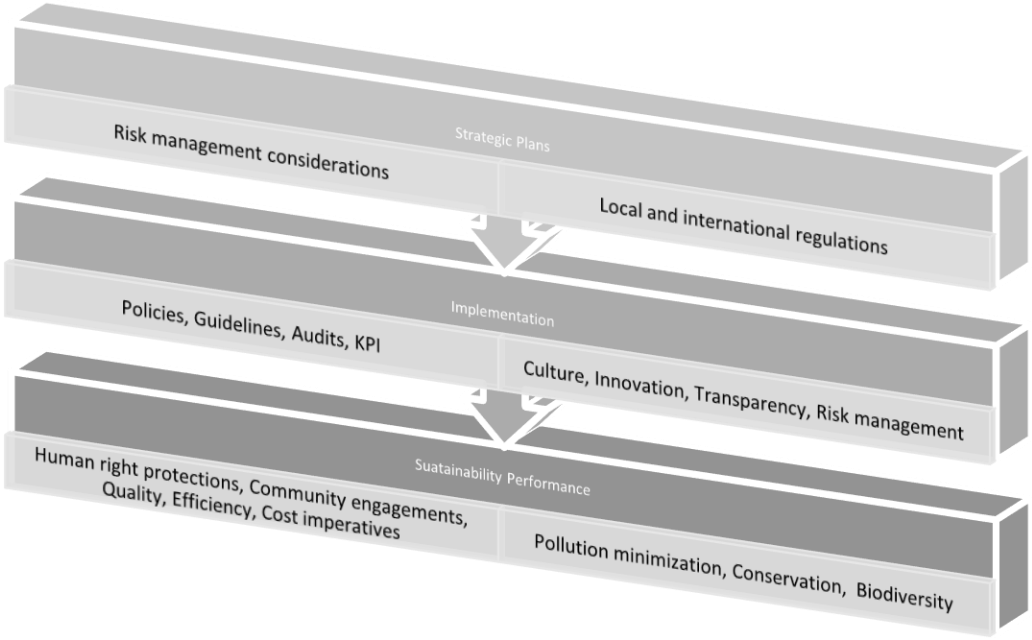

Figure 5. Process for implementing sustainability.

In exploring the experiences of supply chain practitioners in the consumer goods manufacturing sector about sustainability in the supply chain, using the conceptual lenses as shown in Figure 5, the process for sustainability performance that is achieved across social, environmental, and economic levels are driven by top management. The top management commitment and role are operationalized in the strategic plans that are cascaded down for implementation. Top management is driven by risk management considerations. The implementation is underscored by the organizational culture, transparency, innovation, and risk mitigation practices signaled and championed by top management in achieving sustainability performance.

Limitations of the Study

A limitation was the nonrandom sample size of 21 participants from one setting given the scope of the study and raising issues about transferability. Given the current

political structures in the setting, the results could be different if the study is done in another context. Notwithstanding, the use of purposive sampling strategies to identify key informants allowed for in-depth findings (see Cohen et al., 2011). Also, thick descriptions in line with my ethical commitments to limit easily identifying information provided the cushion for the limitation related to the transferability of findings (see Anney, 2014; Guba, 1981).

The choice of the qualitative transcendental phenomenological methodological design limited the approach to data collection and analysis of findings. That said, the detailed justification of the methodological choices consistent with the goals of the study and the strict application of the steps for data collection and analysis assured for the dependability of the findings (see Ravitch & Carl, 2016).

Another limitation issue was the consideration of my interpretive biases as the primary researcher in the collection and analysis of the data. The use of reflexive journals and the epoche process in the transcendental phenomenological analysis steps helped to mitigate these biases. Further, participants' validation of my analyses through member check ensured that possible biases were limited.

Recommendations

This study focused on the experiences of supply chain practitioners about sustainable supply chain management from the context of a developing economy, Nigeria. The findings highlight the perspectives of practitioners based on their experiences from the consumer goods manufacturing sector. Considering these, there are

recommendations that could provide meaningful directions for future research to expand the body of knowledge on sustainable supply chain management.

This study revealed that some sustainable supply chain management practices are being implemented in the consumer goods manufacturing sector that encompassed the three dimensions of sustainability vis-à-vis social, environmental, and economic considerations in the supply chain. The evaluation of the sustainability dimensions could help firms improve sustainable supply chain performance (Ahmad et al., 2016). Further qualitative studies could be done to elicit more sustainability practices from practitioners in the sector to explore and categorize a wider range of practices across the dimensions, which could serve as a prescriptive guide for sustainability planning.

The findings also show that fewer participants discussed social practices in the supply chain compared to the higher response on the aspects of environmental and economic sustainability considerations. This could be attributed to the recollections of participants at the time of the interviews or indicate lesser attention on the social aspects in practice. Future studies could further explore the social aspect of sustainability practice in the sector. In the same vein, one of the outliers in this study indicated that the environmental dimension requires more attention, which the data did not support. Nevertheless, further research could ascertain the level of environmental practices in the supply chain in the consumer goods manufacturing sector in Nigeria.

This study showed that the implementation of sustainability in the supply chain requires managing relationships in the holistic engagement of internal and external stakeholders to achieve sustainability performance. Collaboration and cooperation

among supply chain partners are important for firms in taking advantage of competitive opportunities and minimizing risks (Ahmad et al., 2016; Busse, 2016). Future studies could specifically examine factors that enhance the interrelationships and interdependence for insights to achieve optimal collaboration.

Cross-functional integration among firms is vital in implementing sustainable supply chain management strategies (Ahmad et al., 2016). The findings from this study did not shed light on the engagement of competitors in driving sustainability in the sector. Future studies could consider using stakeholder theory to explore the level of engagement among competitors in driving sustainability in the sector for value for all. Are there antitrust laws preventing this collaboration or the unwillingness of firms to cooperate?

The organizational culture, innovation, and transparency underscore an organizational commitment to sustainability (Ahmad et al., 2016). Findings from this study show that culture, innovation, and transparency enhanced the implementation of sustainability practices in the supply chain. Further studies could collectively explore how culture, transparency, and innovation together shape organizational strategy and commitment to sustainable supply chain management. Separate studies could also examine each variable to understand the extent of the effect of each on organizational commitment.

Several participants confirmed from the findings of this study that risk management considerations were factored into the implementation of sustainability in the supply chain. Mitigating sustainability risks related to reputational damage, sanctions, supply disruptions, and overall business continuity was crucial. Future studies could

examine the extent to which operational risks drive firms in developing and emerging economies in embracing sustainability in their supply chains. Industry-specific findings on the effects of risk management would be essential to understanding the varied impacts across different supply chain environments (Reefke & Sundaram, 2017).

Participants noted that strategic planning was essential to the implementation of sustainability practices. The exploration of the effects of strategic planning is warranted to demonstrate its viability as a major driver of sustainable supply chain management. Participants also indicated the high level of top management support in driving strategic planning, culture, transparency, innovation, and risk management for sustainability performance in the supply chain. Future studies could specifically examine how particular styles of top leadership, transformational or transactional, shape organizational commitment to sustainability in the supply chain.

Participants identified various barriers to implementing sustainability in the supply chain vis-à-vis costs, government policies and regulations; organizational deficiencies, and supplier issues. Further studies could explore these barriers and categorize them. These categorized barriers could then be quantitatively explored to enable practitioners to rank the severity of the barriers and to provide insights as to which should receive more attention in practice for incremental progress.

Few studies have explored sustainability in the supply chain from the context of developing economies. More research could be done on this topic in other developing economies across various industries to compare findings (Silvestre, 2015; Touboulic & Ejodame, 2015). Another outlier in this study was that sustainability in the supply chain

was more defined in the consumer goods manufacturing sector than in the telecom. Further studies could explore sustainable supply chain management across other sectors like the telecom, construction, and agriculture to understand attendant differences and shed light on industry specific-perspectives.

This study was limited to the perspectives of practitioners in focal/buying firms in the consumer goods manufacturing sector. A major partner in the supply chain is the suppliers or vendors. Participants in this study talked about supplier issues from their focal firm point of views. Other studies could explore the perspectives of suppliers regarding the challenges of implementing sustainability in the supply chain as well.

Another outlier in the study was that the implementation of sustainability by firms in the consumer goods manufacturing sector was based on the relationships with international parent companies cascading global best practices and mandates. Most of the participants that volunteered in this study were from multinational corporations. One could conclude that the current level of sustainability practices is due to parent company relationships for most of the firms. Notwithstanding, future studies could categorically explore sustainability in the consumer goods manufacturing sector, delineating data from firms with international parent companies and local indigenous firms for comparability of findings.

Implications

The implications of the study on positive social change at the organizational and governmental levels cannot be overstated. The findings of this study show effort towards true sustainability in the supply chain despite the challenges. This study has brought to

the fore some of the common sustainability considerations in the supply chain across social, environmental, and economic dimensions. The potential social change at the organizational level is that organizational stakeholders across industries would begin to see that being sustainable should be innate to the goals of the organization in considering the social and environmental impacts of their operations.

The paradigm shift from the traditional economic survival to the holistic sustainability of the business across social, environmental dimensions is critical. Organizational stakeholders could begin to understand the necessity of being sustainable across the three dimensions and taking steps to balance the competing goals and mitigate attendant challenges.

At the governmental level, key players in government may begin to see the need to review and update archaic policies to drive and support sustainability practices in the various sectors. In particular, regulatory agencies could be redesigned and empowered with the appropriate legislation for effectiveness. The government has a key role to play in driving and providing the enabling environment for firms in implementing sustainability initiatives in their supply chains. This study could potentially send a signal to leaders in government about their critical role and spur the social change towards holistic policies and legislation.

The methodological considerations in this study involving qualitative transcendental phenomenological approach guided the data collection and analysis processes. The findings have provided insight into the methodological possibilities in exploring sustainable supply chain management. The exploration of this topic cuts across

case studies, field research, quantitative modeling, conceptual modeling, surveys, and theory-driven studies (Brandenburg et al., 2014; Rajeev et al., 2017). Other studies have focused on the theoretical, conceptual, and literature review classifications (Rajeev et al., 2017; Sitek & Wikarek, 2015).

The qualitative in-depth and contextual insights provided in this study could lead to a quantitative analysis that predicts and evaluates the extent of the relationship between sustainability practices and quantifiable impacts on firm profitability. Further, mixed studies could be used to group the themes and quantitatively assessed to prioritize central themes for research and practical insights.

Stakeholder theory focuses on how managers can promote shared value through relationships with stakeholders in conducting business (Freeman et al., 2004; Harrison & Wicks, 2013). The findings from this study support this broader stakeholder engagement as participants indicated sustainability performance arose from the collaboration with broader stakeholders to achieve value for all.

Also, there were indications about a shift from the instrumental to normative aspect of stakeholder engagement as participants indicated the goals for creating value for all as well as seeing suppliers not just as a means to an end, but partners in the larger scheme of achieving sustainability in the supply chain. These findings underscore the viability of stakeholder theory in exploring the phenomenon of sustainable supply chain management.

General systems theory is about seeing and exploring organized entities in a complete picture rather than isolating specific parts in the broader scheme of

investigating a phenomenon (Bertalanffy, 1972). Interrelationship and interdependence are among the central concepts (Kast & Rosenzweig, 1972; Skyttner, 1996) that underscore the holistic nomenclature of general systems theory. Findings from this study showed the essence of the interrelationships and interdependence among various functional roles with the supply chain in implementing sustainability practices.

The viability of general systems theory is not limited to interdependence and interrelationships in exploring sustainable supply chain management but could enable the integration of various concepts like those from the conceptual framework used in this study. As Boulding (1956) pointed out, general systems theory as a skeleton of science allows for the fusion of various strands of knowledge from different disciplines within a framework for coherence.

Given the findings from this study, practitioners should recognize the importance of collaborating and coordinating with internal and external stakeholders to achieve sustainability performance. Supply chain is a central part of an organization, and thus, supply chain practitioners should be at the forefront of pushing for sustainability in the supply chain and organization as a whole. The engagement of stakeholders is important to show the benefits of sustainability to them and the need to implement strategies, which could address the challenge related to lack of awareness.

This engagement could go beyond the boundaries of the organization to customers, suppliers, regulators, competitors, and nongovernmental agencies to develop strategies to mitigate contextual challenges in implementing sustainability in the supply chain. Effective communication and transparency are central to bringing stakeholders

together to collaborate for successful sustainability performance across social, environmental, and economic dimensions.

Another significant aspect is the management of suppliers, who are critical to the viability of the supply chain. Key suppliers to focal firms also have their suppliers and so on. Supply chain practitioners should do more in effectively managing their first-tier suppliers and beyond. Of course, the logistical challenges may be prohibitive. However, in consideration of the risks tier-suppliers could pose to the overall success of the focal firm, practitioners would have to do more. This consideration would require some level of trust between the focal firms and first-tier suppliers. First-tier suppliers could also be developed to cascade sustainability ideals and enforce monitoring across their supply chain. Focal forms could also begin to enforce compliance beyond the first-tier efforts by randomly making spot visits and assessing second-tier suppliers for adherence to sustainability standards.

Conclusions

The goal of this study was to explore the experiences of supply chain practitioners in the consumer goods manufacturing sector to understand the challenges they face in implementing sustainability in the supply chain. The findings contribute to the literature on sustainable supply chain management and in particular, from a developing context. This study is by no way exhaustive as the insights provide a springboard for further studies on this phenomenon in Nigeria, and in other developing contexts across different sectors or industries.

The costs of implementing sustainability initiatives in the supply chain as well as poor government policies and regulations are the most significant barriers. These barriers are exacerbated by the economic conditions in the country that make it difficult for firms to recoup investments in sustainability innovations. Also, the infrastructural deficiencies in the country add to the operational costs making the implementation of sustainability practices much more challenging.

Sustainability no doubt is at its infancy in Nigeria. Notwithstanding, achieving 100% sustainability performance will not happen overnight. But a conscious effort by supply chain practitioners to take incremental steps and communicate to engage stakeholders on the need for sustainability is important. Successful sustainability initiatives should also be communicated to customers to get them to appreciate firms that are trying to be sustainable in their operations and reward them with increased patronage as best as possible. This will encourage firms to invest more in sustainability given the benefits that may accrue from patronage.

Overall, the economic dimension of sustainability cannot be overlooked as a bankrupt firm cannot implement social or environmental sustainability practices. Balancing the profits and costs of implementing social and environmental practices is vital, especially for local firms that may not have the luxury of leveraging relationships with international parent companies whether for direct investments or innovative collaborations.

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Appendix A: Interview Questions

1. Tell me about your role as a supply chain practitioner in your organization.
2. How would you describe the notion of sustainability regarding social, environmental, and economic considerations in your supply chain?
3. Tell me about the interrelationships and interdependence among the functional roles in driving sustainability performance in the supply chain of your organization.
4. Tell me about your organization's stakeholders in the supply chain.
5. Could you please describe how stakeholders of your organization are engaged in the process of driving sustainable supply chain management to achieve shared value for all?
6. Could you describe the sustainable supply chain management planning process in the organization?
7. Could you describe the role organizational culture plays in driving sustainability?
8. Tell me about the factors you believe enhance the success of sustainable supply chain management practices?
9. Describe for me the barriers you have experienced that affect the implementation of sustainable supply chain management?
10. What more can you describe to me about sustainability and supply chain management?

Appendix B: Interview Protocol

Date:
Time:
Interviewee Code #:
Location of Interview:
Age:
Sex:
Education:
Position:
Number of Years in current role:
Number of Years as a Supply Chain Professional:

Parts of the Interview	**Interview Questions**
Introduction	Hello. My name is Ekpen. Thank you for volunteering to take part in this interview. Make yourself comfortable. Your insights will be vital to this study. This interview is going to be taped, and I would take down notes as we go along. I estimate the interviewing would last for about 45 minutes to one hour. Let me again reiterate that if at any point you feel uncomfortable and would like to withdraw your consent for participation feel free to do so. Also, if there are questions you do not understand, interject, and let me know so I could clarify. Also, by default, I will not identify you during publication except you choose to be named along with your quotes. Before we begin, do you have any questions or concerns?
Question 1:	1. Tell me about your role as a supply chain practitioner in your organization. a. Can you describe a typical supply chain activity or activities? b. What are the various functional roles that intersect with supply chain in your organization? c. Do the functions share common or different goals? Prompt- Follow-up on any interesting ideas for more details.

Question 2:	2. How would you describe the notion of sustainability regarding social, environmental, and economic considerations in your supply chain? a. Could you give me some examples? b. Tell me about the social sustainability practices in your supply chain. c. Tell me about the environmental sustainability practices in your supply chain.
Question 3:	3. Tell me about the interrelationships and interdependence among the functional roles in driving sustainability performance in the supply chain in your organization. a. Could you give me examples of the interrelatedness and interdependence? Prompt- Follow-up on any interesting ideas for more details.
Question 4:	4. Tell me about your organization's stakeholders in the supply chain. a. Who would you consider to be social stakeholders? b. Who would you consider to be environmental stakeholders? c. Who would you consider to be economic stakeholders? d. Could you describe how they are classified based on their competing interests? Prompt- Follow-up on any interesting ideas for more details.
Question 5:	5. Could you please describe how stakeholders of your organization are engaged in the process of driving sustainable supply chain management to achieve shared value for all? a. How transparent is this process? b. Tell me about the coordination and collaboration activities among stakeholders?

	Prompt- Follow-up on any interesting ideas for more details-
Question 6:	6. Could you describe the sustainable supply chain management planning process in your organization? a. Do you think this planning is important? b. How would you describe the level of top management support? c. Are they any sustainable supply chain management policy and strategy? d. Can you please explain the key features of your organization's sustainability supply chain policy and strategy? e. Does your organization organize training courses on sustainable supply chain for its staff? f. Does your organization organize training courses on sustainability for its suppliers? Prompt- Follow-up on any interesting ideas for more details
Question 7:	7. Could you describe the role organizational culture plays in driving sustainability? a. Do you think culture is vital? b. Who initiates sustainability innovation in products, your organization or product suppliers? c. Can you please briefly describe the sustainability features of your organization's products on the market? d. How have the factors enhanced organizational image and profitability? Prompt- Follow-up on any interesting ideas for more details-
Question 8:	8. Tell me about the factors you believe enhance the success of sustainable supply chain management practices? Prompt- Follow-up on any interesting ideas for more details –
Question 9:	9. Describe for me the barriers that you have experienced affect the implementation of sustainable supply chain management? a. Could you please elaborate with an example?

	b. What local factors do you think engender these barriers? c. Could you describe the effects of these barriers on sustainability performance? d. How have you managed to deal with these barriers? e. Tell me about the extent of sustainable supply chain compliance to international or local standards or lack thereof. f. Could you describe the accountability process for sustainability performance management? Prompt- Follow-up on any interesting ideas for more details
Question 10:	10. What more can you describe to me about sustainability and supply chain management? a. Any examples of experiences you think to put this into perspective? b. How important are the goals for sustainable supply chains? Prompt- Follow-up on any interesting ideas for more details
Closing statement	1. Thank you for your time. You have shared valuable insights that will be useful for this study. I appreciate it. 2. If you have any questions about anything now would be the time to ask me. 3. We are finished here. I will contact you if I need to clarify any statement and would share my discussions of findings with you at the end of the process. You will have seven days to respond otherwise I would assume you agree with my summations. 4. Thank you, again.

Appendix C: Approvals to Reprint Figures

[Sustainable Supply Chain Management Framework
(Carter & Rogers, 2008)
Emerald Group Publishing Limited

RE: Permission to Reprint/Adapt

Brynn Callahan < >
Thu 9/13/2018 9:43 AM
To:Ekpen Owie < >;
Cc:Lauren Flintoft < >;

Dear Ekpen Owie,
Many thanks for the clarification. Subject to full referencing and credit of original publication, Emerald is happy for you to reuse this content in your dissertation. Please note that if ProQuest hopes to distribute your dissertation commercially, they will need to contact Emerald directly to clear permissions.
I hope that this helps; please do not hesitate to contact me if you have any further inquiries.
Kind regards,
Brynn Callahan
Rights Executive | Emerald Group

Professor Craig Carter

RE: Permission to Reproduce Sustainable supply chain management Framework

Craig Carter < >
Sat 9/8/2018 6:24 PM
To:Ekpen Owie < >;

Hi Ekpen,
You are welcome to integrate the below framework into your doctoral research. Good luck as you move forward with
your program!
CRC

Sustainable Supply Chain Management Framework
(Gupta, Abidi, & Bandyopadhayay, 2013)
Professor Naseem Abidi

Re: Fw: Permission to Reproduce Sustainable supply chain management Framework

Dear Ekpen Owie,
Please find attached two of my related research papers on Sustainable Supply Chain Management.
You are most welcome to use "any portion of these papers with proper citations".
Do write if I can be of any help to you.

Best wishes.
Naseem.
Naseem Abidi, PhD
Professor| Skyline University College |
University City of Sharjah –

Appendix D: Non-disclosure Agreement

CLIENT NON-DISCLOSURE AGREEMENT

This CLIENT NON-DISCLOSURE AGREEMENT, effective as of the date last set forth below (this "Agreement"), between the undersigned actual or potential client ("Client") and **Rev.com, Inc./Temi** ("Rev.com") is made to confirm the understanding and agreement of the parties hereto with respect to certain proprietary information being provided to Rev.com for the purpose of performing translation, transcription and other document related services (the "Rev.com Services"). In consideration for the mutual agreements contained herein and the other provisions of this Agreement, the parties hereto agree as follows:

1. Scope of Confidential Information

1.1. "Confidential Information" means, subject to the exceptions set forth in Section 1.2 hereof, any documents, video files or other related media or text supplied by Client to Rev.com for the purpose of performing the Rev.com Services.

1.2. Confidential Information does not include information that: (i) was available to Rev.com prior to disclosure of such information by Client and free of any confidentiality obligation in favor of Client known to Rev.com at the time of disclosure; (ii) is made available to Rev.com from a third party not known by Rev.com at the time of such availability to be subject to a confidentiality obligation in favor of Client; (iii) is made available to third parties by Client without restriction on the disclosure of such information; (iv) is or becomes available to the public other than as a result of disclosure by Rev.com prohibited by this Agreement; or (v) is developed independently by Rev.com or Rev.com's directors, officers, members, partners, employees, consultants, contractors, agents, representatives or affiliated entities (collectively, "Associated Persons").

2. Use and Disclosure of Confidential Information

2.1. Rev.com will keep secret and will not disclose to anyone any of the Confidential Information, other than furnishing the Confidential Information to Associated Persons; provided that such Associated Persons are bound by agreements respecting confidential information. Rev.com will not use any of the Confidential Information for any purpose other than performing the Rev.com Services on Client's behalf. Rev.com will use reasonable care and adequate measures to protect the security of the Confidential Information and to attempt to prevent any Confidential Information from being disclosed or otherwise made available to unauthorized persons or used in violation of the foregoing.

2.2. Notwithstanding anything to the contrary herein, Rev.com is free to make, and this Agreement does not restrict, disclosure of any Confidential Information in a judicial, legislative or administrative investigation or proceeding or to a government or other regulatory agency; provided that, if permitted by law, Rev.com provides to Client prior notice of the intended disclosure and permits Client to intervene therein to protect its interests in the Confidential Information, and cooperate and assist Client in seeking to obtain such protection.

3. Certain Rights and Limitations

3.1. All Confidential Information will remain the property of Client.

3.2. This Agreement imposes no obligations on either party to purchase, sell, license, transfer or otherwise transact in any products, services or technology.

4. Termination

4.1. Upon Client's written request, Rev.com agrees to use good faith efforts to return promptly to Client any Confidential Information that is in writing and in the possession of Rev.com and to certify the return or destruction of all Confidential Information; provided that Rev.com may retain a summary description of Confidential Information for archival purposes.

4.2. The rights and obligations of the parties hereto contained in Sections 2 (Use and Disclosure of Confidential Information) (subject to Section 2.1), 3 (Certain Rights and Limitations), 4 (Termination), and 5 (Miscellaneous) will survive the return of any tangible embodiments of Confidential Information and any termination of this Agreement.

5. Miscellaneous

5.1. Client and Rev.com are independent contractors and will so represent themselves in all regards. Nothing in this Agreement will be construed to make either party the agent or legal representative of the other or to make the parties partners or joint venturers, and neither party may bind the other in any way. This Agreement will be governed by and construed in accordance with the laws of the State of California governing such agreements, without regard to conflicts-of-law principles. The sole and exclusive jurisdiction and venue for any litigation arising out of this Agreement shall be an appropriate federal or state court located in the State of California, and the parties agree not to raise, and waive, any objections or defenses based upon venue or forum non conveniens. This Agreement (together with any agreement for the Rev.com Services) contains the complete and exclusive agreement of the parties with respect to the subject matter hereof and supersedes all prior agreements and understandings with respect thereto, whether written or oral, express or implied. If any provision of this Agreement is held invalid, illegal or unenforceable by a court of competent jurisdiction, such will not affect any other provision of this Agreement, which will remain in full force and effect. No amendment or alteration of the terms of this Agreement will be effective unless made in writing and executed by both parties hereto. A failure or delay in exercising any right in respect to this Agreement will not be presumed to operate as a waiver, and a single or partial exercise of any right will not be presumed to preclude any subsequent or further exercise of that right or the exercise of any other right. Any modification or waiver of any provision of this Agreement will not be effective unless made in writing. Any such waiver will be effective only in the specific instance and for the purpose given.

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed below by their duly authorized signatories.

CLIENT	**REV.COM, INC.**
Print Name:_____	
By: [redacted]	By: [redacted]
Name: [redacted]	Name: [redacted]
Title:	Title: [redacted]
Date: 9/14/2018	Date: June 13, 2018
Address for notices to Client:	Address for notices to Rev.com, Inc.:
[redacted]	222 Kearny St. Suite 800 San Francisco, CA 94108