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Strategies to Mitigate Supply Chain Disruptions in Manufacturing Enterprises

Aikins Brobbey
Walden University

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Walden University

College of Management and Human Potential

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Aikins Brobbey

has been found to be complete and satisfactory in all respects,
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the review committee have been made.

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Walden University
2024

Abstract

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by

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MSc, University of Liverpool, 2015

BSc, Kwame Nkrumah University of Science and Technology, 1999

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

October 2024

Abstract

Some business leaders of manufacturing enterprises lack strategies to mitigate supply chain disruptions to prevent financial loss. Business leaders need strategies to mitigate such disruptions to return their organizations to normal operational status. Grounded in stakeholder theory, the purpose of this qualitative multiple-case study was to identify and explore successful strategies business leaders of manufacturing enterprises in southern Ghana use to mitigate supply chain disruptions. The participants were six business leaders who had experienced and successfully mitigated supply chain disruptions over the past 5 years. The data sources were semistructured interviews, direct observation, and organizational records. Reflexive thematic analysis yielded three themes: (a) engage employees, develop customer interest, and manage suppliers' strategy; (b) encourage interfirm and institutional collaboration strategy; and (c) address adverse behavior among stakeholders' strategy. A key recommendation for business leaders is to collaborate with interested groups, embrace stakeholders' adverse behavior, and create a healthy relationship with all stakeholders to mitigate supply chain disruption and avoid financial loss successfully. The implications for positive social change include the potential to help business leaders create a conducive and collaborative work environment to enhance employees' mental health, transform stakeholder behavior, and improve people's lives in the communities where the organizations operate.

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Dedication

To the most excellent God, inexplicable, indefinable, divine, righteous, loving, and compassionate. God rules in the affairs of individuals, and he protects those who respect, fear, and love him. The righteousness of God exceeds human understanding. In his purity, he shines so brightly that it darkens around him. God exercises righteousness in darkness and brightness, and no one escapes his role call. He is the “I AM” in whose presence all creation humbles themselves and bows to his awesomeness. Those who choose to disrespect God are awestruck when they meet him; unfortunately, only a few people have the privilege of a somatic divine encounter.

In Jesus Christ, God revealed the extent of his affinity and love for humanity. God would not allow the ignorance and arrogance of humanity to curtail his plans for them. In sin, holiness, sadness, joy, sickness, and pain, God seeks humanity to return to him, and he never rejects anyone who finds him. The advantages of a divine-human interaction are immeasurable, and those who know and understand him are forever grateful. The God product is quantitative, qualitative, and experiential to which many will testify. Unto such a God, I dedicate the fullness of this doctoral study because his role in my life is and has been that of a strict, caring, loving, and protective father.

Acknowledgments

I never imagined Walden University could be so strict in training doctors in all disciplines. From the first course to the final stages of the doctoral capstone, each professor I met demanded a high academic proficiency, which sharpened my mental faculty to produce my best. My academic best has never been enough, as each professor requested further improvement with my A grades. For Walden professors, grade A is never a ceiling in the academic ascension. My first chair, Dr. Mohammad Hammoud, was thorough in his assessment before his retirement. My new chair, Dr. Betsy Macht, perfected my doctoral capstone journey to a successful end. I thank my three student advisers, Anna Bieniasz (past), Kasia Disterhoft (past), and Pamm Kemp (current), for their support and strong sense of duty. To all my professors, the librarians, and the Walden University team, God bless and favor you for the person I have become. It has been an excellent doctoral journey.

To my unshakable and brilliant wife, Linda Opoku-Sarkodie, I say "thank you" for being my wife. Very few men have the advantage of marrying an excellent and virtuous woman. To our four children, Yaw, Kwadwo, Akosua, and Kwasi Brobbey, may God find you usable in his kingdom. You are worth more than you may realize.

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Section 1: Foundation of the Study

Business leaders' attempts to make their organizations more efficient underpin the development of the supply chain system. The significance of supply chains to society lies in their ability to fulfill consumers' unmet needs (Lochan et al., 2021). According to Lochan et al. (2021), efficient supply chain management provides societal needs by ensuring raw material availability at manufacturing sites, maintaining continuous work-in-progress, establishing efficient logistics, and sustaining the supply of finished products to consumers. K. Mahajan and Tomar (2021) noted that business leaders of contemporary organizations boast of a competitive supply chain, which indicates the overriding significance of inter-organizational collaboration in serving the needs of consumers. A disruption in the supply chain may lead to failure to honor the fundamental consumer-organization contract, which could result in sustainable challenges and financial losses (Huang et al., 2021; Paul et al., 2020; Y. Wang et al., 2021). Efficient supply chains could imply sustaining the provision of goods and services through inter-organizational collaboration. Business leaders who cannot effectively manage supply chain disruptions may be less efficient in delivering consumer value propositions that could affect business continuity and result in financial loss.

Supply chain disruptions have long and short-term impacts. Alora and Barua (2020) defined supply chain disruptions as a break in the flow of goods and materials because of demand and supply issues, delays, natural disasters, and events that could disturb normal operations. Technology malfunctioning, supplier delays, transportation problems, poor product quality, cyberattacks, shortage of skilled staff, and others fall into

the category of disruptions with short-term impacts (Baghersad & Zobel, 2021).

According to Baghersad and Zobel (2021), earthquakes, tsunamis, fire outbreaks, and adverse weather conditions may impact supply chains in the long term. The short- and long-term impacts of supply chain disruptions could damage the manufacturing process and lead to financial loss. The significance of mitigating supply chains is to curtail the devastating consequences of the short- and long-term impacts of supply chain disruptions.

Background of the Problem

Supply chain disruptions could have dire consequences for the performance of the supply chain and the productivity of the firms involved. Alora and Barua (2020) argued that a disruption in the supply chain may result in delays in product delivery, reputation challenges, decreased demand, and performance decline that could lead to a 4.49% reduction, on average, in shareholder wealth. Lochan et al. (2021) suggested that despite the unhealthy consequences of supply chain disruptions, business leaders must accept it as part of organizational risk uncertainties that they must mitigate to sustain business activities. Business leaders need to make an organization or supply chain resilient to disruptions. Without such interventions, a supply chain could suffer manufacturing challenges, inefficient inventory, transportation issues, delays in supply, reputational challenges, collapse in consumption, and financial loss.

Problem and Purpose

The specific business problem was that some business leaders of manufacturing enterprises in southern Ghana lack strategies to mitigate supply chain disruptions. The

purpose of this qualitative multiple-case study was to identify and explore successful strategies business leaders of manufacturing enterprises in southern Ghana use to mitigate supply chain disruptions.

Population and Sampling

The population of this study comprised business leaders of three manufacturing enterprises in southern Ghana. I asked each firm to provide at least two participants as data sources, creating a minimum of six purposely selected business leaders who had successfully implemented strategies to mitigate supply chain disruptions. The selection criteria were that interviewees be business leaders with more than 5 years of experience in the organization. Eligible participants must have been in the current position before, during, and after a disruption. To access potentially eligible participants, I contacted a key person at each of the three manufacturing firms and then secured signoff from the partner organization.

Multiple data sources strengthen the credibility and validity of case studies (Yin, 2018). I used semistructured interview questions to collect qualitative data on the strategies business leaders use to mitigate supply chain disruptions. I also reviewed company websites as well as the following types of documents: (a) press releases, (b) financial reports, (c) sustainability reports, (d) annual reports, (e) supply chain resilience reports, (f) and other publicly available documents.

Nature of the Study

From three research methods, namely qualitative, quantitative, and mixed, I determined that the qualitative approach would best suit this study. Researchers use

qualitative methods to explore participants' experiences, thoughts, and memories to obtain detailed and context-dependent interpretations of a social phenomenon (S. Lee & Kim, 2021; Ponterroto, 2006). The qualitative method was suitable for this study because it allowed me to generate detailed and context-dependent interpretations from participants' experiences, thoughts, and memories of the strategies they used to successfully mitigate supply chain disruptions. Quantitative researchers use data to test a theory, hypothesis, or relationship among variables by separating a phenomenon from its context (Hosseini et al., 2022). The quantitative method was unsuitable for this study because exploring strategies business leaders use to mitigate supply chain disruptions did not involve theory testing. The mixed method involves using qualitative and quantitative methods to explore a phenomenon and test a theory (Schrader et al., 2020). The mixed method was unsuitable for this study because I did not use the quantitative method.

I considered three research designs that are appropriate for a qualitative study: (a) ethnography, (b) phenomenology, and (c) case study. Researchers use ethnography to explore the customs and culture of a group of people (Hod et al., 2020; Salzman & Koch, 2020). The ethnographic design was not suitable for this study because the purpose was not to explore the customs and culture of a phenomenon. A phenomenologist investigates people's interpretation of a lived experience (Avakian, 2020). The phenomenological design was not appropriate for this study because the purpose was not to explore people's interpretation of a lived experience. A case study is a research design that researchers use to investigate in-depth a complex contemporary social phenomenon within a real-world context (Priya, 2020; Takahashia & Araujo, 2020). I selected the case

study because it allowed me to obtain and compare rich data from multiple participants' experiences, thoughts, and memories; in-depth interviews, undergirded by “how,” “why,” or “what” questions, were a primary means of gathering data.

Research Question

The research question for this study was, What strategies do business leaders of manufacturing enterprises in southern Ghana use to mitigate supply chain disruptions?

Interview Questions

To answer the research question, I designed the following interview questions to collect data from participants:

1. What type of supply chain disruption have you faced over the last 5 years?
2. What business strategies do you use to mitigate supply chain disruptions successfully?
3. How do you decide which supply chain disruption mitigating strategies are successful?
4. In what ways do your employees influence your strategies to mitigate supply chain disruption?
5. How do your relationships with people and groups outside your organization influence your strategies to mitigate supply chain disruption?
6. What are the barriers to mitigating supply chain disruption?
7. How have you addressed these barriers?
8. What else do you wish to add about strategies you use to mitigate supply chain disruptions successfully?

9. What other information would you like to provide about your strategies to mitigate supply chain disruptions?

Conceptual Framework

The theory that grounded this study was the stakeholder theory. In 1963, leaders at Stanford University developed the stakeholder theory to expand business theory from an exclusive focus on shareholders to one including stakeholders (R. Mahajan et al., 2023; Sajjad et al., 2020). Freeman (1984) noted that the stakeholder theory could assist corporate executives in solving an organization's myriad of problems. I applied the stakeholder theory to identify emerging themes in this study. The core tenet of stakeholder theory is that business leaders should build cooperative relationships with stakeholders (Bridoux & Stoelhorst, 2022; R. Mahajan et al., 2023). I used the different logics of stakeholder theory to identify, explore, and understand the strategies participants used to successfully mitigate supply chain disruptions.

Operational Definitions

Circular economy: A philosophy of adding value to used products to increase economic benefits, decrease environmental degradation, and motivate social justice (de Souza et al., 2021; Roleders et al., 2022).

Circular supply chain management: The integration of a zero-waste vision into supply chain management to enable value recovery through the same or dissimilar interfirm collaboration (Farooque et al., 2022).

Supply chain disruption: An unanticipated event that curtails the regular flow of goods and/or services from a supplier's supplier to consumers (Baghersad & Zobel, 2021; Paul et al., 2020).

Supply chain resilience: The ability of organizational actors to absorb the negative consequences of a disruption in order to normalize the disturbed environment and quickly reduce financial losses (Hosseini et al., 2022; Yu et al., 2019).

Supply chain risk management: A conscious effort by organizational actors within a supply chain to identify sources of disruptions and create mitigation strategies to marginalize the impact of the disruption on performance (Mahour & Subramanian, 2021).

Supply chain sustainability: The strategic design, coordination, control, and organization of a supply chain to improve the long-term economic performance of a firm and the fulfillment of its social, environmental, and economic goals (Baig et al., 2020).

Assumptions, Limitations, and Delimitations

Assumptions

Assumptions are a theory's foci, facts considered accurate but not verified (Mamman et al., 2019; Wolgemuth et al., 2017). My first assumption was that participants would share their knowledge freely and that I would guarantee their confidentiality. My second assumption is that I would select participants with appropriate backgrounds and experience to participate in the study. My third assumption was that participants would be able to engage in the study because I would be able to schedule the interview at a time and place convenient for them.

Limitations

Research limitations are potential weaknesses or restrictions associated with the methodology or design of the study that researchers cannot control (Shahriari & Rasuli, 2020; Theofanidis & Fountouki, 2018). Pearse (2021) noted that interpretive qualitative case study research is cultural, context-specific, and dependent on the participants' global business perspective. First, I conducted a research study with manufacturing enterprises in southern Ghana. The research findings may not be transferable to countries with different contexts or cultural dispositions. Second, as LaCroix (2022) explained, data collection for naturalistic inquirers depends on time, place, and participants. The business understanding of Ghanaian entrepreneurs elicited in this study might differ from that of other countries, making interview responses location dependent. Researchers may find it challenging to replicate the findings of this study in different contexts.

Delimitations

Delimitations refer to the bounds or scope of the study and include the research purpose, research questions, and populations (Mele et al., 2020). According to Mele et al. (2020), delimitations define the inclusion and exclusion criteria of the research study. I restricted the research study to business leaders in southern Ghana. Focusing on the southern part of Ghana should not significantly affect the interpretation of the findings from this study. The Ghana Statistical Services (2018) report indicated that most manufacturing firms in Ghana are in the southern part of the country. I examined stakeholders' influence on the strategies business leaders of manufacturing enterprises

use to mitigate supply chain disruptions; transferability to head porters, sole entrepreneurs, street sellers, and microbusinesses is not appropriate.

Significance of the Study

This study is significant because the results could include examples of strategies business leaders of manufacturing enterprises might use to mitigate supply chain disruptions. Numerous researchers have identified supply chain resilience and sustainability as crucial in reducing a disruption's impact and ensuring suppliers' rapid recovery after the onslaught of natural or manufactured disruption (Baig et al., 2020; Z. Yang et al., 2022). The United Nations' 2030 sustainable development goals (SDGs) center around people, planet, peace, prosperity, and partnership as five critical objectives that are achievable by mitigating supply chain disruptions (Brault et al., 2020; Gafar, 2022; Thu & Xuan, 2023). Business researchers use stakeholder collaboration to improve supply chain resilience and sustainability by sharing information, capabilities, cost, and logistics that may lead to meeting the tenets of the SDGs in ensuring prosperity (Bak et al., 2023; Nonet et al., 2022; Salam & Khan, 2020). However, barriers to supply chain sustainability (Sajjad et al., 2020; Baig et al., 2020) and supply chain resilience (Agarwal & Seth, 2021; Gupta et al., 2022) could hamper progress in mitigating supply chain disruptions. The significance of mitigating supply chain disruption is to ensure business continuity and meet the SDGs objectives in improving global prosperity, stopping global hunger, achieving food security, ensuring healthy lives, promoting well-being, and so on.

Contribution to Business Practice

The findings of this study may support the creation of efficient managerial processes for identifying, developing, and implementing strategies to mitigate supply chain disruptions. The processes of developing strategies to mitigate supply chain disruptions may include the need for entrepreneurs to develop (a) quality products, (b) efficient resource control, (c) effective inventory management, and (d) the application of digitized technology (Gebisa & Ram, 2021; V.-H. Lee et al., 2021; Mahlamäki et al., 2020). The outcomes of this study may reveal strategies business leaders could use to mitigate supply chain disruptions by building organizational agility and flexibility in response to stakeholder needs. Business leaders may develop sustainability practices, ensure business continuity, and foster supply chain resilience by engaging stakeholder perspectives.

Implications for Social Change

Supply chain–stakeholder collaboration may require trust to ensure a win-win situation where reciprocity is critical. According to Baah et al. (2021), supply chain collaboration increases supply chain transparency and information sharing as factors of supply chain resilience. Farooque et al. (2022) noted that applying a circular economy to supply chain management engenders a sustainable supply chain and leads to economic performance. The implications for positive social change include the potential of developing individuals' human capital in the communities where the organizations operate through lifelong training and development. A resilient supply chain may ensure healthy lives and promote the well-being of employees and their families. Business

leaders who mitigate supply chain disruptions could provide decent work for all stakeholders by ensuring sustainable economic growth. Management's good intentions underlying the passion to mitigate supply chain disruption could engender positive stakeholder entrepreneurial behavior that organizational actors need to mitigate supply chain disruptions. A stabilized supply chain could enhance the stability of families and promote gender equality by empowering women and girls to engage in full and productive employment.

A Review of the Professional and Academic Literature

In this qualitative multiple-case study, I identified and explored successful strategies business leaders of manufacturing enterprises in southern Ghana use to mitigate supply chain disruptions. The purpose of this literature review is to extract and learn from extant literature on how business leaders use stakeholder theory to mitigate supply chain disruptions. In this literature review, I explore and categorize the antecedents of supply chain disruption into natural, manufactured, financial, and technological risk factors that impact supply chain activities and have the potential to cause enormous financial loss. The extant literature indicates that business leaders could reduce the impact of supply chain disruptions through supply chain resilience and sustainability measures (see Baig et al., 2020; Hosseini et al., 2022; Sajjad et al., 2020). Business leaders may mitigate natural, manufactured, financial, and technological supply chain disruptions by developing supply chain resilience and sustainability measures that include assessing digitized technology, engaging multiple suppliers, developing robust financial strength, increasing interfirm collaboration, and so on.

Literature Search Strategy

The sources for the literature review included peer-reviewed scholarly journal articles from the following databases and professional organizations: ABI/INFORM Collection, Emerald Insight, SAGE Journals, ScienceDirect, ProQuest Central, Business Source Complete, Sociology Source Ultimate, Science Journals, Springer eBooks, and Social Science Research Network. I also used Walden University's Thoreau multidatabase search tool. To select scholarly, peer-reviewed journal articles, I used terms including *supply chain disruptions*, *transportation disruptions*, *port disruptions*, *inventory disruptions*, *supply chain risk*, *demand risk*, *process risk*, *environmental risk*, *supply risk*, *financial performance disruptions*, *firms' performance disruptions*, *COVID-19 pandemic*, *economic impact of disruptions*, *socioeconomic impact of disruptions*, *stakeholder engagement*, *stakeholder perspectives*, *supply chain resilience*, *barriers to supply chain resilience*, *mitigating supply chain disruption*, *barriers to mitigating supply chain disruption*, and *supply chain sustainability*. The information from the selected articles depicted the background information and findings concerning supply chain disruptions and risk-mitigating strategies and their impacts on a firm's financial portfolio. The selected journal articles include information about stakeholder engagement and their influence on business leaders' strategies to mitigate supply chain disruptions.

I structured the literature review under the following major topics: conceptual framework (stakeholder theory), alternative theory, background history of the study, supply chain disruption, mitigating supply chain disruption, supply chain resilience, and supply chain management. The peer-reviewed journal articles I selected contain

information covering these topics and provide an overview of various supply chain disruptions, mitigation strategies, stakeholder influence, and stakeholder engagement. Of the 212 references, 195 (92.0%) were published within 5 years of the doctoral study's anticipated completion date (September 2024). The references contain 11 books (4.96%), one government report (0.45%), three edited books (1.35%), and 207 (93.24%) peer-reviewed journal articles.

Conceptual Framework

In this doctoral study, I drew on stakeholder theory to explore the strategies business leaders use to mitigate supply chain disruptions. Freeman and Reed (1983) used the stakeholder theory to counter the neoliberal view of producing value for shareholders. Freeman (1984) developed the stakeholder theory as a lens through which managers could solve many strategic management issues. The stakeholder perspective on strategic management considers employees, shareholders, customers, and environmental factors as critical to the organization's or supply chain's smooth operations (Freeman, 1984). According to Nonet et al. (2022), achieving the business components of the United Nations' SDGs requires multistakeholder engagement in a participatory management environment. The stakeholder approach to mitigating supply chain sustainability issues has increased since Freeman's seminal paper on the stakeholder approach to strategic management in 1984. The stakeholder approach to strategic management upholds the theory of philosophical pluralism, encouraging contributions from interested groups to solve business problems.

Consumers' perspectives of supply chain activities regarding their product or service experiences may be critical for business leaders in making business decisions. The decision to innovate, expand market share, acquire, merge, conduct research and development, and perform other futuristic functions depends on consumers' assessment and response to the value proposition firms offer (Kotler & Keller, 2021). The engagement of stakeholders infuses an atmosphere of human values in the organization and creates a sense of moral obligation and social accountability (Gutman, 1982). Stakeholder theory, being the dominant theoretical perspective to explore supply chain resilience and sustainability issues, draws on the human spirit to enforce entrepreneurial sustainable behavior and responsible supply chain management.

Stakeholders may involve diverse groups with varying degrees of influence. Freeman (1984) defined a stakeholder as an individual, organization, or group that can influence the firm's financial status and is affected by the firm's performance. Researchers have affirmed that organizations could enjoy a competitive advantage if their leaders respond effectively to stakeholders' needs (Klassen et al., 2023; Laplume et al., 2022). H. Li et al. (2022) disclosed that business leaders, mitigating against product recall, must focus not only on managers, shareholders, and consumers but also on suppliers, employees, competitors, the media, and regulators. Supply chain actors need to realize the devastating economic impact of supply chain disruption on various stakeholders and use that understanding to their advantage. The research findings by H. Li et al. indicate that a supply chain's economic performance depends on internal and external influences.

A healthy supply chain-stakeholder relationship may lead to improved stakeholder cooperation. Embedded in the stakeholder theory are the requirements for supply chain actors to manage issues of sustainability and corporate social responsibilities (Hajmohammad et al., 2021; H. Li et al., 2022; Sajjad et al., 2020; Yang & Basile., 2022). To improve the organization–stakeholder relationship, some company leaders embark on cause-related marketing and donate a part or whole of sales to victims of a natural disruption (Liu et al., 2020). Salam and Khan (2020) suggested that (a) stakeholder collaboration among government agencies, (b) the military establishment, (c) nongovernmental organizations, and (d) locals in a community are crucial factors in saving lives and property during an earthquake, a natural supply chain disruption. The effectiveness of stakeholder influence may depend on coordinating ideas and resources to develop a united front among different stakeholder groups. Assuming global equity of economic resources and sufficient purchasing power, everyone becomes a respected consumer and influential stakeholder in the supply chain ecology. Business leaders may use various stakeholder logics to solve issues of strategic management. An understanding of stakeholder logic may allow business leaders to address the interests of a supply chain and stakeholders effectively and concurrently.

Stakeholder Logics

Managers have applied stakeholder theory in numerous ways. Sajjad et al. (2020) noted that the business application of stakeholder theory involves one or more of the four logics, namely descriptive, normative, instrumental, and integrative perspectives. There are interrelated yet conflicting economic, environmental, and social concerns between

normative and instrumental logic (Nonet et al., 2022). Business leaders must concurrently embrace and resolve such ideological conflicts to achieve superior business contributions to sustainable development (Hahn et al., 2018; Nonet et al., 2022). J. Yang and Basile (2022) revealed that the decision to embark on corporate social responsibility instead of using resources to improve the economic status of the corporation is uncertain and requires a resolution between normative and instrumental perspectives of stakeholder theory. Corporate decisions on strategic management could involve trade-offs or a combination of stakeholder logic depending on the corporate vision.

Descriptive Logic. Supply chain actors need to accept and embrace the existence and role of stakeholders. Freeman (2020) noted that researchers have used descriptive logic to encourage business leaders to accept that firms have stakeholders. The descriptive perspective of stakeholder logic implies that business leaders must consider their actions on people and the actions of people on them (Donaldson & Preston, 1998). According to Freeman, stakeholders in the organization indicate that business leaders need to work effectively with them by understanding their behavior, values, background, and culture. The United Nations' 2030 sustainable development agenda recognizes stakeholders as crucial partners in achieving the 17 SDGs (Karakulak & Stadtler, 2022; Mariani et al., 2022). Business leaders must understand that the business environment encompasses stakeholders whose actions or inactions affect the supply chain's financial performance.

Instrumental Logic. Business leaders could use stakeholders as a tool to fulfill corporate strategy. The instrumental logic of the stakeholder theory portrays business

leaders' stance of using stakeholders as a tool or means to an end (Donaldson & Preston, 1998). The instrumental logic suggests that business leaders may use stakeholders to improve their legitimacy, profitability, and competitiveness (Sajjad et al., 2020). Freeman (2020) suggested that managers "What do we stand for?" at the organizational, process, and transactional levels as a prelude to successfully assessing the instrumental logic needed to solve an inherent problem. The United Nations' SDGs guarantee peace and justice, and people-centered institutions are inimical to using stakeholders as a tool or means to an end (Thu & Xuan, 2023). Business leaders should consider how they could be more effective in identifying, analyzing, and negotiating with key stakeholder groups to serve their organization's needs. The idea of using stakeholders as a tool to achieve a firm's objective may seem unethical unless the end is perceived as justifying the means.

Normative Logic. Supply chain actors could design their vision to include stakeholders as part of their strategic imperative. Business leaders applying the normative logic or theory depict stakeholders as the objective of an organization's vision, not a means to an end (Donaldson & Preston, 1998). In considering the stakeholders as an end to corporate strategies, business leaders need to inquire how they can make each stakeholder better off through ethical and moral leadership. Is there a moral justification for mitigating supply chain disruption or ensuring sustainable management? In achieving the 17 United Nations SDGs, business leaders should realize the underlying moral justification in serving humanity for a better future (Florin-Aurelian, 2022; Gafar, 2022; Sebhatu & Enquist, 2022). If business leaders consider the stakeholder as the reason for their operations, then every enacted strategy should address the stakeholder's security,

happiness, comfort, health, and welfare. Invariably, normative logic seldom occurs, and the instrumental perspective appears unethical. An integrative logic may provide a more holistic approach to strategic management.

Integrative Logic. Business leaders using the integrative perspective of stakeholder theory could serve the needs of both the firm and the stakeholder by addressing the requirements of instrumental and normative logic. Corporate leaders embrace and resolve the tension between instrumental and normative logic to achieve contending but desirable sustainable supply chain objectives (Han & Lee, 2021; Waheed & Zhang (2022). The mantra “do what is right” is dominant in sustainable supply chain management, where stakeholder influence calls for the removal of negative externalities (pollutant emissions, employees’ health issues, and unhealthy work environment) as well the addressing of economic issues (Halldórsson, 2019; Um & Han, 2020). In the event of supply chain disruption, an integrative stakeholder logic perspective would mean mitigating the disruption, addressing possible social concerns, and resolving environmental issues simultaneously. An integrative stakeholder logic perspective motivates supply actors to recognize stakeholders as cocreation, coproduction, and coconsumption partners.

Stakeholder Categorization

Different stakeholder groups with different descriptions require different considerations. As business leaders sought to fulfill the increasingly sophisticated needs of consumers, stakeholder theory took center stage in corporate strategy, forcing the rapid development of stakeholder-centered or consumer-centric organizations (Freeman, 2020).

With the increasing prevalence of alternative products, marketing researchers realized the need to segment the market with the hope of including stakeholder perspectives in the product and service design (Um et al., 2017). The advent of social media in 1997 strengthened the stakeholder-centric ideology, leading to the global influence of activists, advocacy groups, and social movements (Appel et al., 2020; Hunt & Gruszczyński, 2021). Following the work of Freeman (1984), Clarkson (1995) grouped stakeholders into primary and secondary categories.

Primary Stakeholders. The organization contains organized groups of people with similar visions and cultures bound by shared values. Clarkson (1995) defined a primary stakeholder as an individual or group whose contributions to the organization's business activities are critical to its survival. Clarkson categorized primary stakeholders as shareholders, employees, customers, and suppliers. In another definition, H. Li et al. (2022) referred to primary stakeholders as internal stakeholders whose actions and inaction could increase or decrease the economic performance of the corporation. In this vein, Hajmohammad et al. (2021) labeled internal stakeholders as market stakeholders to indicate the significance of internal stakeholders to the firm. Last, Harjoto et al. (2022) referred to shareholders and customers as residual claimants, while he labeled employees and the environment as fixed claimants. Various researchers have agreed that primary stakeholders are critical organizational capital, possessing the propensity to convert tacit knowledge to tangible products (Li et al., 2022; Harjoto et al., 2022). Without internal stakeholders' talents and skills, the organization would de-organize back to fruits, wood, grains, soil, and other raw materials. To evaluate, control, and streamline the work of

internal stakeholders, business leaders need to engage external stakeholders to regulate their activities.

Secondary Stakeholders. The need for organizational monitoring is compelling when exercised by an external body with a direct or indirect vested interest in the firm's work. Secondary stakeholders such as non-governmental organizations, activists, advocacy groups, communities, governments, and the media indirectly influence the corporation's economic activities (Barros et al., 2021; Damert et al., 2021; Rendon, 2022). Clement (2005) insisted that secondary stakeholders do not engage in economic transactions with the organization but could influence its activities through social movements, legal proceedings, and regulations. Hajmohammad et al. (2021) defined secondary stakeholders as non-marketing interest groups. In contrast, H. Li et al. (2022) called them external stakeholders as they operate within the organizational ecology but from outside the corporation. The external or nonmarket stakeholders observe and publicize supplier misconducts such as child labor, pollution, safety-related issues, and employee mistreatment (Hajmohammad et al., 2021). External stakeholders such as non-governmental organizations, regulatory authorities, legal institutions, and the media ensure supply chain actors manage the system proactively. The probability of abusing a firm's leadership role increases without adequate monitoring and control.

Stakeholder Unethical Behavior

A society may expect individuals to act responsibly regarding laid down rules as they react to external stimuli, making unethical behavior entrepreneurially unacceptable among any group of people. Using the deontic justice theory, Kai et al. (2021) agreed that

when some members of a group act unethically, other members intuitively act against such behavior through moral anger. The deontic justice theory indicates that individuals will not copy unethical behavior since it infringes upon their moral understanding (Folger, 2001). The deontic justice theory internalized moral norms that drive people to desist from any act of omission, which will not bring social justice and economic benefits to society (Zeng et al., 2021). Though proponents of stakeholder theory embrace stakeholder ethical behavior, deontic justice theory depicts incidents of unethical behavior by stakeholders and the need for managerial strategic action. Employees' erroneous perception of workplace fairness could result in unethical behavior and negative consequences on performance.

Unethical behavior violates widely accepted moral or social norms, depriving stakeholders of unwarranted or excessive actions against faulted leaders, organizations, and supply chains. Leadership unethical behavior increases employees' stress and workplace conflicts and decreases performance (Chen et al., 2021; Kai et al., 2021; Sam, 2021; Zeng et al., 2021). Harjoto et al. (2022) explained that corporate unethical behavior, such as accounting fraud, deliberate product contamination, and quality challenges, has a negative impact on shareholders' wealth and customers' buying behavior. Loosemore et al. (2020) argued that a lack of trust in the management-stakeholder relationship breeds stakeholder nervousness and does not augur well for supply chain performance. Workplace injustice can affect the level of employees' work satisfaction and could lead to unethical behavior. The seminal paper by Freeman concerning the stakeholder perspective of strategic management assumed that

stakeholders would act responsibly with moral understanding but did not consider the probability of stakeholder unethical behavior and the influence on strategic management.

Stakeholder Absence

The current turbulent and value-centric marketing era makes stakeholder absence inimical to supply chain sustainability and performance. Neu et al. (2019) define social accountability as the informal social policing to rebalance the supplier-buyer or organization-consumer power asymmetry. Previously, organizations relied on the all-size-fits-all axiom, not caring about including stakeholders' perspectives in creating values for them (Kotler et al., 2019; Sciandra, 2019). Chen et al. (2021) argued that as managers of the product-centric era sought desperately to increase their profit portfolio, they deliberately ignored employees, customers, and other stakeholder opinions. According to Chen et al. (2021), the occurrence of stakeholder absence or vacuum in strategic management led to the depletion of natural resources, an increase in pollution, waste generation, calls for reworks, quality challenges, and the eventual collapse of many organizations. Researchers of the stakeholder theory assume that stakeholders will always be available to organizations but fail to account for the possibility of stakeholder absence or deliberate withdrawal of stakeholder support and the resulting influence on strategic management.

Alternative Theory

As social beings, humans may thrive on interactions and relationship building, making individuals and groups copy and imitate each other as they learn to solve personal and organizational problems. Bandura (1969) posited the social learning theory to explain

the process of knowledge transfer through observation, imitation, cognitive processes, reciprocity, and relationships. The emphasis on relationship building within organizations has drawn the attention of management researchers in the search for best practices (Gong et al., 2020; Kotler et al., 2019; Liu et al., 2020; Men et al., 2020; Palacin et al., 2021; Riaz et al., 2021). Relationship building is a critical entrepreneurial success factor that hinges on human capital, social capital, and social skills. Marketing professionals who need help bridging the organizational offerings and customers could face challenges meeting the market's needs. Advocates of social learning theory emphasize ethical and healthy relationships to ensure ethical behavior and knowledge transfer.

In an environment where the learner is a teacher, and the teacher is a learner, respect and reciprocity could be critical learning factors. The concept of reciprocal determinism or triadic reciprocity enlisted in the social learning theory depicts environmental events, personal and cognitive factors, and behavior as interacting mutually and determinants of each other (Duarte et al., 2020; Juozaitienė & Wit, 2022; Myers, 2021). Duarte et al. (2020) contended that the elements of triadic reciprocity depend on an individual's or group's propensity to acquire, assimilate, transform, and exploit knowledge through vicarious learning (Ali et al., 2020; Duarte et al., 2020). Applying the triadic reciprocity theory would imply that a supply chain's performance may thrive on continuous interaction and knowledge acquisition.

Collective participation, mutual interaction, and stakeholders' reciprocal engagement could be factors of value co-creation. Hamid and Khan (2020) explained that the effectiveness of social learning theory is in the following: (a) performance

monitoring, (b) information sharing, (c) peer support, (d) task, and (e) relation-oriented behavior. According to van Dum and Wilderom (2021), a mature leader-member exchange, face-to-face support, open-to-change attitude, and learning-by-doing culture improve and sustain high team performance. Similarly, open innovation as a marketing concept hinges on symbiotic relationships that engender reciprocity to thrive (Greco et al., 2019; Ooms & Piepenbrink, 2021; Seran & Bez, 2021). Business leaders use social learning theory as a descriptive instrument of a learning process that could enhance the development of supply chain actors. However, with little emphasis on strategic management, social learning theory could be less efficacious in assisting researchers and business leaders to develop strategies to mitigate supply chain disruptions.

Background History of the Study

The effects of the numerous incidents of natural disasters and the increasing cyber-security attacks are exaggerating the uncertain disposition of the already fragile business environment. If not managed, supply chain disruptions threaten business continuity and sustainability and could lead to enormous financial loss. The damage caused by the COVID-19 pandemic globally has been phenomenal, affecting the economic status of organizations, supply chains, and nations (Huang et al., 2021; Gashi et al., 2021; K. Mahajan & Tomar, 2021). Gashi et al. (2021) revealed that almost every enterprise in Kosovo was negatively affected by the COVID-19 pandemic, a natural disruption with low probability but having an enormous impact on supply chain activities. The COVID-19 pandemic disrupted organizational activities, from the farmers who could not deliver products to market centers to manufacturing firms that had

difficulty restocking inventory. The COVID-19 pandemic impacted a firm's inventory and logistics, leading to a plunge in global supply chain activities and economic performance.

Associated with digitized technology is the threat of data breaches that could cost millions of U.S. dollars to affected supply chains. During the last quarter of 2020, computer hackers inserted malicious malware into the software system of SolarWinds, a major U.S. information technology firm (Melnik et al., 2022). The cyber-security breach resulted in the operational disruptions of over 18,000 organizations (Melnik et al., 2022). Being one of the manufactured supply chain disruption antecedents, cyber-security attacks could (a) destabilize national economies, (b) curtail production activities across supply chains, and (c) impose enormous pecuniary loss on the supply chain.

Categories of supply chain disruptions that require significant coordinating efforts and longer recovery times to normalize may pose significant threats to supply chain financial performance. Salam and Khan (2020) observed the devastating impact of earthquakes on humanitarian disaster management and called for collaboration among all stakeholders to save lives and property. Y. Wang et al. (2020) noted that natural disruptions impact economic activities at both the upstream (entities or suppliers that source raw material inputs to the manufacturer) and downstream (post-manufacturing activities using distribution channels to reach the final consumer) sides of the supply chain. Researchers insisted on the need for intra and interorganizational coordination and collaboration to mitigate natural disruptions throughout the supply chain.

The Business Continuity Institute (2023) report on supply chain resilience listed the following as some of the disruptive events with medium to high probability of occurrence: (a) transport network disruptions, (b) delivery delays, (c) loss of skilled employees, (d) outsourcer failure, (d) industrial disputes, (e) fire outbreaks, and (f) energy scarcity. According to Fartaj et al. (2020), manufactured disruptions, including (a) political change, (b) civil unrest, and (c) business ethics incidents, are common among industries, but the impacts on supply chain performance are low. Paul et al. (2020) revealed that corruption in customs, gasoline price volatility, infrastructural bottlenecks, political unrest, and the lack of maintenance culture are some drivers of transportation disruptions. Indeed, apart from natural disruptions, manufactured disruptions could lead to supply chain disruptions and impact supply chain activities that might curtail services to consumers.

Navigating the COVID-19 pandemic required a solid statistical and information and communication technology foundation for economic activities. Although more than 90% of firms suffered huge financial losses from the extended impact of COVID-19 a few are willing to invest resources to create a resilient supply chain (Baghersad & Zobel, 2021). Mahour and Subramanian (2021) noted that managers are unwilling to invest in mitigating strategies due to a lack of data on the relative importance of supply chain risk drivers and their impacts on a firm's performance. Business leaders need data (quantitative and qualitative) to make informed decisions concerning strategies to mitigate supply chain disruption.

Extant literature on supply chain disruption indicates the need to explore how and why business leaders successfully mitigate supply chain disruptions. The idea behind exploring the strategies business leaders use to mitigate supply chain disruption is to provide solutions for business practitioners and strategic solutions for governing institutions (Fartaj et al., 2020; Melnyk et al., 2022). In this doctoral study, I am exploring the strategies business leaders use to mitigate supply chain disruptions as my contribution to ensuring business continuity. Other business contributions include (a) providing job security, (b) enhancing business performance, (c) increasing the volume of the job market, and (d) sustaining existing businesses in Ghana and the West African sub-region.

Supply Chain Disruption

Supply chain disruptions and organizational risk factors are natural phenomena that business leaders need to accept and should form part of the strategic imperative of the system. A disruption to organizational activities or supply chain negatively influences the production of goods and services, inventory management, and logistics (Huang et al., 2021; Lochan et al., 2021; Paul et al., 2020). Alora and Barua (2020) defined supply chain disruption as a break in the flow of goods and materials. Supply chain disruption activities include (a) demand and supply issues, (b) delays in delivery, (c) natural disasters, and d) other rare situations that could curtail the link between the supplier and the consumer (Alora & Barua, 2020). Business leaders must strategize to counter disruptions arising from natural causes, manufactured problems, financial problems, and technological risk factors.

Business leaders need to identify various sources of supply chain disruption to develop specific mitigation strategies. The definition of supply chain risk given as the potential deviation from the expected value of a supply chain performance measure is a derivation of the variance-based view of risk (Miller, 1992). According to the variance-based view, an increase in the deviation from the expected value increases the variation, leading to an increase in the risk level (Parast, 2020). Miller (1992) explained that effective supply chain risk management centers on identifying sources of the variation. Sources of variations in a supply chain include all disruptions that disturb the flow of products, services, and information. Business leaders must be alert to these sources of variations and their devastating effects on financial performance.

Impacts of Supply Chain Disruptions

The devastating impacts of supply chain disruption could disturb global economic performance. The consequences of supply chain disruptions have been documented in numerous peer-reviewed articles, detailing the impact of a disruption on shareholder wealth, financial losses to businesses, the loss of employment, and collapse in demand (Alora & Barua, 2020; Choudhury et al., 2022; Gashi et al., 2021; Huang et al., 2021). In a simulation study, Lochan et al. (2021) predicted that events such as a fire in one distribution center and the shutdown of production for one week of one of the suppliers of dairy products will lead to a loss of \$181,750,000 CAD, which is 3% of the expected revenue. Huang et al. (2021) revealed that the Canadian Pork Council predicted a loss of \$675,000,000 CAD in May 2020. Similarly, the Canadian Cattlemen Association recorded a loss of \$500,000,000 CAD at the end of June 2020 due to the COVID-19

pandemic. Literature affirmed that supply chain disruptions, be they natural or manufactured, could lead to global supply scarcity, job insecurity, performance challenges, insufficient products and services, and economic loss.

Supply chain disruptions such as the COVID-19 pandemic negatively influenced businesses in Ghana and other countries. Literature review on the impact of COVID-19 on the Ghana economy revealed challenges of supply chain resilience, inadequate medical institutions, low level of inter-organizational collaborations, and insufficient skilled labor (Aduhene & Osei-Assibey, 2021; Korankye, 2020; Ofori-Boateng et al., 2022). In Ghana, 42,000 employees across various registered businesses lost their jobs during the first 2 months of the COVID-19 pandemic (Aduhene & Osei-Assibey, 2021). According to Aduhene and Osei-Assibey (2021), the tourism industry in Ghana lost an estimated U.S. \$171,000,000 within 3 months following the partial lockdown. In effect, supply chains in Ghana had insufficient resilience measures to mitigate the COVID-19 pandemic. The consequences of COVID-19 on employment, business continuity, and financial performance were devastating.

A passive approach to mitigating supply chain disruption could delay resilient measures and increase the impacts on supply chain performance. Apart from high-profile events such as the COVID-19 pandemic, random events such as poor communication, disorganization, demand forecasting errors, lead-time problems, and price variation could disrupt the performance of a supply chain and create monetary loss (Baah et al., 2022; Lochan et al., 2021). Whether the resilient measure is reactive, proactive, or a mix of the two depends on the supply chain disruption anticipated or experienced (Agrawal & Jain,

2022; Agarwal & Seth, 2021). Disruptions due to global climatic changes such as flooding, hurricanes, and bushfires are recurrent, informing supply chain actors to be flexible (proactive, reactive, and mixed) in their approach to supply chain disruption to avoid excessive financial loss. The scope of supply change risk management is extensive, making it necessary to construct a categorization to simplify sources of disruptions and mitigating measures.

Supply Chain Disruption Categorization

Researchers may need to group the antecedents of supply chains into various categories to assist business leaders in segmenting and specifying appropriate mitigation strategies. According to Mahour and Subramanian (2021), the impact of a disruption on the upstream side of the supply chain exceeds that on the downstream side. Mahour and Subramanian (2021) categorized the antecedents of supply chain disruption into demand, supply, process, and environmental disruption risks. Extrapolating from the assertion made by Mahour and Subramanian, each of the supply chain disruption categories renders bigger impacts on the upstream side of the supply chain than the downstream side, indicating the need for top management action in developing resilience measures for the firm.

Demand Disruption. Demand disruptions could disturb the flow of products and services that may lead to a surplus of unsold goods. Product consumption and utilization of services occur upstream and downstream of the supply chain (Baah et al., 2021; Liyuan & Kai, 2020; Sun et al., 2022). Mahour and Subramanian (2021) noted that demand disruption risk factors include transportation disruptions, technological

inefficiencies, earthquakes, floods, trade wars, and cross-border issues. The COVID-19 pandemic depicted a scenario of volatility in demand arising from the reduction in product availability, panic buying, price volatility, and extended lead time (Wang et al., 2020; Mahajan & Tomar, 2021). In addition to demand variations arising from a collapse in consumption, changes in order quantity, and product quality issues, increased lead time may result in a surplus of unsold goods that could threaten the performance of the supply chain.

Demand variations may be the result of collaboration and information inefficiencies. Demand-supply mismatch results in over-inventory of products and may result in pecuniary loss to the supply chain (Maaz & Ahmed, 2022; Mahour & Subramanian, 2021). Baah et al. (2022) reiterated that the paucity of stakeholder collaboration and information asymmetry could result in decreased supply chain visibility, collaboration problems, and demand forecasting errors. In a distribution channel, demand fluctuations could cause a more substantial effect of material order variability toward the supply chain's upstream, a phenomenon described as the bullwhip effect (Forrester, 1961). Lessons from the bullwhip effect indicate that demand variability could disrupt inventory management, derail forecast accuracy, affect capacity utilization, and disturb production planning. Demand variations could result in supply chain inefficiencies and financial loss.

Supply Disruption. Supply disruption is mainly an upstream event that affects the supplier's supplier and may lead to supply problems. Supply disruptions include challenges with material inputs, manufacturing problems, and inventory management

issues (Gebisa & Ram, 2021; Lücker et al., 2021). The systemic risk theory says that failure in any part of a system could trigger negative consequences in the entire system (Colon & Hochrainer-Stigler, 2023; Naqvi et al., 2020). According to system risk theory, supply chain disruption could occur when a supplier's activities deviate from contractual agreements due to unanticipated disruptions (Paul et al., 2020). The system risk theory impresses upon supply chain actors to increase supplier evaluation and monitoring since the loss in reputation or brand image of one organization could impact the entire supply chain.

Supply disruptions could arise from disruption spillover effect from one organization to the entire system. V.-H. Lee et al. (2021) insisted that supply chain actors integrate product innovation and quality management into their strategic imperatives to avoid product-related issues and spillover effects. Perrow (1999) posited the normal accident theory and suggested that the failure of a supplier may impact the activities of other suppliers but not all suppliers within a specific supply chain. According to Perrow (1999), the normal accident theory depicts the inherent nature of accidents or disruptions in supply chain activities. Perrow disagreed with Roy on the extent of the spillover effect of a disruption, so that the impact of a supply disruption in one organization may influence a few organizations and not the entire supply chain. Both Perrow and Roy agreed on the negative impacts of supply disruptions irrespective of the extent of the spillover effect of a disruption.

Process Disruption. Business leaders categorize a disruption in the organization's internal operations as a process disruption that could impact manufacturing, inventory,

logistics, and administrative activities. Gunessee and Subramanian (2020) revealed that process disruption results from a firm's capacity limitations, machine failure, quality problems, and inefficient information technology (IT) infrastructure. Melynk et al. (2022) disclosed that organizations that rely on digitized production and inventory processes suffer increasing cyberattacks that disturb their ability to serve customers continuously. Business leaders relate process disruptions to employees' skills failure, reminding managers of the need for employees' training and skill development.

Technological innovation could assist managers in reducing the impact of process disruption. Al-Edenat (2023) revealed that business leaders could design process innovation to decrease the unit cost of production and increase product or service quality by acquiring new or significantly improved information and communication technology, equipment, and software. Numerous organizations introduced the barcode system or the active radio-frequency identification goods tracking system to improve the delivery system (W. Xu et al., 2023). Business leaders could use technological and process innovation to reduce cost, increase quality, and enhance communication and information sharing as process disruption mitigating strategies.

An organization's internal process involves transforming material inputs into desired products, making process disruptions an upstream issue. Business process innovation includes six factors, namely (a) production of goods and services, (b) distribution and logistics, (c) marketing and sales, (d) information and communication system, (e) administration and management system, and (f) business process development (Andreini et al., 2022; Klos et al., 2023). De Giovanni and Cariola (2021) noted that

small and medium-sized enterprises benefit from business process innovation in terms of the ease of application of modern technology, cost management, waste avoidance, and improved customer satisfaction. Mahour and Subramanian (2020) agreed that strengthening interdepartmental communication, knowledge sharing, and implementing cross-functional teams could minimize process disruption and engender business continuity. In practice, business process innovation encompasses the activities of the entire supply chain. Disrupting any of the six strands of business process innovation could impact the supply chain's financial performance.

Environmental Disruption. Environmental disruptions could impact the performance of new product introduction and related economic activities. Carmagnac and Naoui-Outini's (2022) definition of innovation diffusion involves spreading innovations through market or non-market channels to different consumers, countries, regions, sectors, markets, and firms. Chauhan et al. (2023) noted that the successful diffusion of innovation hinges on respecting all stakeholders. According to Chauhan et al. (2023), innovation has no economic value without diffusion, making environmental disruption unfavorable to new product introduction, consumption patterns, and organizational performance. The assertion that environmental disruption could affect innovation diffusion is in line with the research findings, indicating that environmental disruption has a negative impact on shareholders' wealth.

Environmental disruptions could have a low frequency of occurrence but a high impact on supply chain financial performance. Parast's (2020) definition of environmental disruption includes pandemics, epidemics, natural disasters, socio-political

instability, economic downturns, and terrorist attacks. Baghersad and Zobel (2021) found that multinational corporations are more resilient to environmental disruptions than smaller or single-location firms. According to Baghersad and Zobel (2021), essential industry sectors experience lower short-term and long-term losses than nonessential industries. Despite the high impact of environmental disruptions, multinational corporations can relocate production to another site and away from the disrupted location. The use of the word ‘collaboration’ in mitigating all types of supply chain disruptions indicates the crucial position of stakeholders. Stakeholders may influence and sanitize supply chain activities to ensure resilience, sustainability, and business continuity. The ability of supply chain actors to mitigate supply chain disruption may count as a meaningful business practice in addressing some of the 17 objectives of SDGs, as defined by the United Nations document on ‘transforming our world.’

Mitigation of Supply Chain Disruptions

The general expectation is that supply chain disruptions could significantly negatively impact firms. The high level of uncertainties and complexities associated with disruptive events make it imperative for business leaders to develop mitigating strategies (Gaur et al., 2020; Lücker et al., 2021; Mutekwe et al., 2020; Roscoe et al., 2020). Laguir et al. (2022) insisted that many suppliers would fail to perform creditably without resilience measures against cyberattacks, rampant employee absenteeism, employee turnover, supplier failure, and energy scarcity. Supply chain resilient measures include organizational learning (Eryarsoy et al., 2022), digitally driven business model (Kuffner et al., 2022; Lin et al., 2023), organizational agility (Akhtar et al., 2022; Shekarian et al.,

2020), and product or service innovation (Al-Hakimi et al., 2022). The increasing use of digitized technology across the supply chain could improve agility, innovation, information transfer, and knowledge-sharing issues.

Supply chain resilience and sustainability could help business leaders mitigate supply chain disruptions. Extant literature reveals that supply chain resilience (Gebhardt et al., 2022; Hosseini & Ivanov, 2019) and supply chain sustainability (Baig et al., 2020) assume increasing importance as a stakeholder perspective in mitigating supply chain disruptions. It follows that developing organizational capabilities engenders the creation of a resilient supply chain and allows optimal use of internal skills (Alkhudary et al., 2022; Brintrup et al., 2022; Yu et al., 2019). Salam and Khan (2020) disagreed with total reliance on internal stakeholder capabilities and advocated for including external parties (Ye et al., 2022). Recognizing the skills of internal stakeholders and the engagement of external stakeholders to mitigate supply chain disruptions is a call on management to consider stakeholder perspectives when developing sustainability and resilient measures against supply chain disruptions. The key word is effective collaboration in a win-win contractual agreement.

Supply Chain Resilience

Supply chain actors could employ resilient tactics to mitigate various disruptions that threaten to cause economic loss. According to the dynamic capability theory, an organization must possess adaptive (backup supplier), absorptive (inventory prepositioning), and restorative capabilities (restoration of disrupted supplier) to respond successfully to disruptions (Yu et al., 2019). Without an investment in resilience

capabilities, business leaders might lack the strategies to effectively adapt, respond, and recover from a disruption (Gebhardt et al., 2022). Yu et al. (2019) disclosed that managers of a resilient supply chain possess strategies to absorb disruptions and return the organizations to normal operations. Hence, business leaders with high adaptive, absorptive, and restorative capacities may be better able to reposition, substitute, absorb, restore, and evacuate a system in response to a disruptive event.

Process evaluation and monitoring could engender management efforts to develop supply chain resilience. Using dynamic capability theory, Yu et al. (2019) asserted that actors of a resilient supply chain should have the capabilities to reconfigure production equipment, material acquisition, inventory, and coordination. According to Yu et al., developing resilience includes (a) monitoring patents, (b) following industry developments, (c) checking news events in specific geographic regions, (d) performing audits, (e) ensuring scheduled on-site visits, and (f) having a robust financial backbone. The various research findings indicated that supply chain resilient strategies should form part of an organization's strategic imperative. A comprehensive approach to developing supply chain resilience involves integrating supplier-side and consumer-side resilience options.

Supply-Side Resilience Option

Managing excess capacity, backup suppliers, and stockpiling might assist business leaders in mitigating the impact of supply chain disruptions. Wei et al. (2022) noted that supply-side resilience options include (a) management of excess capacity, (b) ship rerouting, (c) cargo prioritization, (d) export diversion for import use, (e) production

recapture, (f) road infrastructure asset management, and (g) effective supplier management. According to Wei et al., business leaders must be able to redirect shipping vessels to undamaged ports and obtain goods meant for the international market for local input. The availability of good road infrastructure is an asset to supply chain logistics but lies wholly within the control of governments. Creating a robust supply-side resilience option falls within the purview of internal and external stakeholders.

Customer-Side Resilience Option

Effective management of supplier activities could ensure a continuous flow of products and services to customers. Wei et al. (2022) agreed that customer-side resilience options include (a) the use of inventory, (b) conservation of inputs, (c) input substitution, (d) import substitution, (e) production relocation, (f) production capture, and (g) effective travel demand management. According to Lücker et al. (2021), managers need to hold more risk-mitigating inventory and reserve capacity downstream even when the upstream holding costs are lower. Wei et al. (2022) suggested that apart from the availability of product substitutes, part of an organization's customer-side resilience option involves transferring goods from disrupted facilities to active regions. Customers' acceptance of refurbished products or products made from recycled materials is critical in introducing reverse logistics or circular economy as a resilient supply chain strategy.

Circular Economy

Business leaders could opt for recycled products as material inputs for manufacturing enterprises. The concept of zero waste aligns with the principles of sustainability as embedded in the theory of circular economy (Bag et al., 2022; de Souza

et al., 2021; Shah & Bookbinder, 2022). The idea of working towards zero waste could be possible with reverse logistics, a concept that encompasses the reuse of products and the recycling of disposals (Afum et al., 2019). Farooque et al. (2022) integrated circular economy and reverse logistics into the supply chain, suggesting that circular supply chain management engenders financial performance. Roleders et al. (2022) noted that the economic benefits of saving material resources through innovative reuse and recycling are close to USD 1,000,000,000,000 annually. Achieving zero waste may be close to impossible. However, the processes involved in developing a circular economy could provide resilient measures and lead to job creation and supply chain performance.

Effective communication among supply chain actors may enhance the concept of an upward supply chain. Entrepreneurs design sustainable supply chain communication to achieve transparency (Duan & Aloysius, 2019), whereas business leaders implement sustainable sales to avoid pecuniary loss (Roscoe et al., 2020). Apart from seeking products and services to fulfill their unmet needs, consumers also show interest in the upward supply chain, the reverse flow of products from the consumer to the manufacturer (Afum et al., 2019). Related to the concept of circular economy are raw material utilization, sustainable consumption, and resource efficiency (Sciarelli et al., 2021). The principles of sustainable development complement circular economy in that entrepreneurs could use both concepts to foster waste elimination, pollution reduction, products and materials recycling, and the regeneration of natural resources.

Supply chain actors implementing circular economy principles may conserve natural resources, reduce pressure from regulators, increase efficiency, and promote

economic growth. The idea of circularity in the supply chain defines developing a regenerative and restorative economic model (Hosseini et al., 2021; Roleders, 2021). The concept of circularity is crucial in the supply chain's upstream and downstream sides. The successful implementation of a circular economy could involve the active participation of all stakeholders and includes (a) lifestyle changes, (b) perception reorientation, (c) structural changes, and (d) a new economic model.

An investment in implementing a circular economy could strengthen supply chain resilience. Research findings of the Ghanaian and Ukrainian economies revealed underinvestment, faulty legislation, and inadequate state policies toward the implementation and benefits of a circular economy (Afum et al., 2019; Deineko et al., 2019; Hurochkina & Budzyns'ka, 2020). The quest for zero waste, sustainable development, and economic performance by supply chain actors indicates the need for investment in a circular economy.

Psychological Dimension of Resilience

The desire to revive an enterprise after a devastating disruption such as an earthquake, fire, or adverse weather might be a factor of psychological ownership. Loss aversion is intricately linked to psychological ownership, whereby the fear of losing something valuable stimulates entrepreneurial passion for a longer relationship (Feng & Chen, 2020; Jami et al., 2020; Nagaya, 2021). Yuksel et al. (2019) defined psychological ownership as the state in the consumption process when owners feel emotionally attached to the object of interest. Gabay-Mariani et al. (2023) noted that some entrepreneurs reference their organization as “my baby,” which signifies a psychological attachment

that could engender a protective attitude to save the enterprise in a disruption.

Additionally, customers will act defensively against an attack on the products that occupy their psychological states. Entrepreneurs' persistence to save their companies in a devastating disruption is a factor of entrepreneurial passion arising from psychological ownership.

Stakeholders might be susceptible to the feeling of possession and ownership towards organizations and their value propositions. The emotional and motivational aspects of psychological ownership tend to define stakeholders' behavior concerning their decision to invest in a particular business (Jami et al., 2020; Kumar, 2019; Reto & Almaguer, 2019). According to Kumar (2019), the growing incidence of online business communities partly arises from a sense of ownership attached to these websites. With the increasing sophistication of consumer demands, the case is no more 'my' or 'your' organization or supply chain (legal ownership) but 'our' supply chain (psychological ownership) and the sustainability thereof (Li & Atkinson, 2020). Supply chain actors must address stakeholders' psychological needs (emotional and motivational) to ensure they remain motivated and emotionally sacrosanct. Entrepreneurs must address stakeholders' concerns to curtail hostilities and develop healthy relationships.

The product-consumer relationship could be partly emotional and may influence the psychological state of customers. The endowment effect states that consumer valuation of objects increases once they have taken ownership (Thaler, 1980). The endowment effect depicts a product-consumer relationship that exists in the psychological state (Xie et al., 2021; Yamamoto & Navarro-Martinez, 2022). Gal (2021)

challenged the foundational basis of the endowment effect, and yet its efficacy in explaining entrepreneurial behavior and stakeholder response to unsustainable behavior remains daring. Supply chain actors could struggle with maintaining reputation, brand identity, and brand image if they do not realize that the products, services, and the community have an endowment effect on stakeholders. Consumers continued loyalty to supply chain offerings depends on the degree of protection or servicing of the objects (products, services, organization, and environment) in their endowed state. Consumers may consider an act that plunges supply chain reputation as an infringement in their psychological state and could lead to unhealthy results.

Person-Entrepreneurship Fit Effect

There could be a constructive collaboration between individuals' propensity to exercise entrepreneurship and their personality traits that could encourage business leaders to save the enterprise in adversity. Personality traits are the innate dispositional patterns an individual exhibits, forming part of their behavior (Yilmaz & Aksoy, 2020; H. Xu, 2020). Research studies by Al-Hakimi et al. (2022) revealed entrepreneurial orientation as a resilience measure. Lin et al. (2023) introduced the role of the fit mechanism between digitally driven business capability and supply chain governance. Markman and Baron's (2003) idea of person-entrepreneurship-fit was to define a set of personal attributes that make an entrepreneur. The selection of the following: (a) self-efficacy, (b) persistence, (c) opportunity identification, (d) human capital, and (e) social capital and social skills (Botha & Morallane, 2019) are an admission that successful

entrepreneurs are naturally endowed with personality traits that motivate sincere commitment to establish and sustain an enterprise.

Self-Efficacy. Believing in one's attributes could be a critical characteristic of successful business leaders that might enable them to face the many vicissitudes of the business environment. Self-efficacy, defined as the belief in the ability to organize and execute a program to the expected end, could motivate individuals or groups to develop sociability, imagination, intelligence, and thoughtfulness, among others (Botha & Morallanes, 2019; Pent & Lent, 2019). A person high on the neuroticism (self-debasement) trait and self-efficacy may have challenges channeling internal energy for the benefit of society, especially when the immediate environment is the cause of his or her neuroticism (Penn & Lent, 2019). According to Penn and Lent (2019), an individual high on self-efficacy could also be an extrovert, open to opportunity, and conscientious, a combination Markman and Baron (2003) prescribed for successful entrepreneurship. Self-efficacy is a critical entrepreneurial characteristic that enables business leaders to exercise entrepreneurial sustainable behavior, a requirement for supply chain performance and resilience.

Opportunity Identification. The success of an enterprise could depend on the alertness of the entrepreneur to environmental changes and business opportunities. Consistent with the theory of cognitive adaptability or flexibility is the concept of opportunity identification and entrepreneurial intentions (Gill et al., 2021; Urban, 2020). Botha and Morallane (2019) disclosed that an entrepreneur with high cognitive adaptability and entrepreneurial intentions possesses social intelligence, familiar with the

knowledge market, and is alert to business opportunities. Consistent with the idea of cognitive flexibility is the notion that business opportunities exist through the intentional or purposeful effort of the entrepreneur (Pellegrino et al., 2021; Pinho & Lurdes, 2020). Opportunity does not exist until discovered, and it takes the entrepreneurially astute to realize and define a business opportunity amid adversity, as in the benefits of mitigating supply chain disruptions.

Social media could assist business leaders in developing new business models that may serve as supply chain resilience and sustainability measures. The Internet and social media have opened digital business model opportunities for small and medium-sized enterprises (Appel et al., 2020; Ford, 2019; Zhang & Zhu, 2021). Gebauer et al. (2020) warned entrepreneurs of the digitization paradox, where the return on investment of manufacturing companies is less than anticipated from their substantial investment in digital technology. According to Linde et al. (2021), some SMEs rush to copy digital business models used by Facebook, Amazon, Apple, Netflix, and Google without due diligence to customize the business models locally. Entrepreneurs could use new business models to sustain performance and implement business opportunities in alignment with the supply chain's vision. Indeed, social media marketing is the new business model, offering business opportunities to interested entrepreneurs with the promise of engaging millions of prospective customers at the click of a computer mouse.

Perseverance. Entrepreneurs who develop the art of perseverance do so with the assurance that they might receive social recognition and business security for exercising sustainable behavior. Perseverance marks an unyielding human spirit borne out of self-

efficacy, hope, tenacity, and optimism (Tingyl et al., 2020). Research findings by Gao et al. (2020) affirmed that individuals high on perseverance have positive psychological capital that may lead to creative and innovative behavior. C. Lee et al. (2019) insisted that consumer acceptance and patronage of new products depend on product innovation, marketing intelligence, entrepreneurial willingness, and perseverance in adversity. A person with a perseverance attitude is not necessarily an entrepreneur; however, an entrepreneur with perseverance characteristics could be successful.

The pristine force to start a new business may dwindle to the barest minimum as opposing market forces compete with the startup in the limited market space. The risks of opportunity cost of other alternatives, cost of capital, economic inertia, and other disruptions are a few of the uncertainties entrepreneurs face (Linde et al., 2021). Oduro (2020) noted that business leaders of small and medium-sized enterprises (SMEs) require the skills to persevere and to do more with less because of the liability of smallness. Oduro (2020) explained that where liability of smallness exists, limited resources, unfamiliar brand names, limited product offerings, and challenging access to markets oppose the progress of SMEs. Santos et al. (2020) indicated that entrepreneurs who persevere in their ventures perform satisfactorily under challenging circumstances. Perseverance is a character attribute vital for individual success and organizational performance. Thus, startup entrepreneurs must persevere to remain economically relevant during a disruption.

Some business leaders are prone to adversity. However, an entrepreneur's likelihood of mitigating supply chain disruption might relate to the quantum of adversity

quotient. Dwelling on behavior and perseverance, Stoltz (2000) introduced the term “adversity quotient” as a measure of resilience. Stoltz (2000) explained that entrepreneurs who are high on the adversity quotient have better control over adversity. Motro et al. (2021) reiterated that entrepreneurs high on adversity quotient enjoy organizational success, build personal effectiveness, and create a more resilient enterprise than the less persistent ones. Entrepreneurs with a high adversity quotient could have the propensity to mitigate supply chain disruption and remain unperturbed. The adversity quotient does not measure entrepreneurial success but expresses the high probability of exercising resilience measures for those with a higher level of adversity quotient.

Human Capital. The success of enterprises, supply chains, and the national economy could depend on the talent force of employees. According to Markman and Baron (2003), the survival of organizations depends on the presence of employees with the knowledge, skills, and intellectual acumen needed to create a unique value proposition for society. Javed et al. (2021) conceded that the progress of humanity is dependent on ideal individuals possessing the mental acumen and sustainable behavior that could launch humanity into a new paradigm shift. Individuals need to develop their human capital through acquired skills, education, job training, work experience, and interpersonal relationships (Apostolova Nikolovska & Serafimovska, 2020; Costa et al., 2022; Sayili, 2020; Margolis & Tzabbar, 2020). Human capital drives supply chain performance, sustainable practices, and resilient measures, enabling business leaders to mitigate supply chain disruptions successfully.

Social Capital and Social Skills. The concept of social capital hinges on relationship building so that an individual or group's social capital could be strong or weak depending on prevailing circumstances. Social capital is a range of resources or opportunities made available through contacts, networks, institutional ties, and stakeholder relationships (Markman & Baron, 2003). A solid or high level of social capital may engender a free flow of information and practical knowledge management within a supply chain (Can Saglam et al., 2022; Kuffner et al., 2022). Social capital depicts trust as the fundamental building block in creating lasting relationships that could help business leaders create resilience measures and lead to supply chain financial performance.

Effective interactions ensure the development of healthy relationships that could serve as a competitive advantage for entrepreneurs. Markman and Baron (2003) defined social skills as individuals' propensity to interact with others through social perception and social adaptability effectively. According to Markman and Baron (2003), social perception (the ability to perceive others) and social adaptability (the ability to interact with individuals from diverse backgrounds) are good predictors of an entrepreneur's financial success. Entrepreneurs with high social capital and social skills have a competitive advantage in the turbulent market compared to those with less social skills and social capital.

Entrepreneurs' good intentions may create supply chain-stakeholder bonding that could lead to increased performance. Barnett et al. (2020) disclosed that savvy marketing managers can turn negative publications (social disapproval) about a corporation into a

positive marketing campaign by convincing stakeholders of management's good intentions. Consumers' prior belief of a company's good intentions (ethical, legal, environmental, economic, and philanthropic activities) could serve as a defensive mechanism in the event of a product recall, adversities, and disruptions (Guo & Li, 2023; H. Li et al., 2022; Shoujia et al., 2019). The research findings by Markman and Baron indicated that it would be entrepreneurially unacceptable for business leaders to secure sufficient human capital, high social capital, and hefty social skills without adding a liberal measure of good intentions. Managers' good intentions could sustain stakeholders' loyalty in the event of bad publicity or disruptive occurrences.

Supply Chain Management

The quest for quality, less costly, and timely response to stakeholders' unmet needs requires inter-organizational collaboration in supply chains. The supply chain involves the combined management of manufacturing, inventory, and logistics through the collaborative effort of organizational actors and stakeholders (Lochan et al., 2021). According to Melnyk et al. (2022), the efficient oversight of supply chain activities, referred to as supply chain management, depends on suppliers' product quality and on-time delivery. Baah et al. (2022) confirmed that supply chain activities include product development, sourcing, production, inventory, logistics, and the information systems that coordinate these activities. Supply chain management practices include managing customers, organization resources, and inventory. The efficient management of supply chains must involve deliberate and well-planned strategies to ensure efficient resource utilization, customer management, and providing timely products and services.

Stakeholders' quest for a safe earth could motivate business leaders to mitigate supply chain disruptions and create sustainable businesses. The current climatic disturbances have motivated researchers to redefine supply chain management to include the need for social equity and environmental protection (Ivanisevic Hernaus, 2019; Pal, 2021; Sciarelli et al., 2021). Supply chain actors must innovate in product and business processes to satisfy societal needs for security, happiness, a comfortable life, and other human values (Andreini et al., 2022; Klos et al., 2023). Story et al. (2021) advised business leaders to be technologically responsive. Other researchers suggested open innovation, a practice that hinges on networking with other organizations to expand the frontier of product development (Gutmann et al., 2023; Ooms & Piepenbrink, 2021). Supply chain managers must embrace open innovation to access innovative technology to serve customers' needs for cheap but quality products and a clean environment.

Stakeholder Influence

The social, environmental, governance, and economic elements of sustainable development depict the stakeholder as an integral part of sustainable supply chain management whose action and inaction could redefine the future of the supply chain. Stakeholder pressure influences socially responsible supply chain management that could create awareness of sustainability issues and financial performance (Damert et al., 2021; Somjai et al., 2019). Consumers are motivated by the impact of global climatic changes on organizations and expand their demands to include green consumption, green purchasing, green investment, green supply chain management, and other sustainability requirements (Hashmi & Akran, 2021; Kalyar et al., 2019; Novitasari & Agustia, 2021).

The economic benefits of greening supply chains may not be substantial, but a few studies on sustainability have proven otherwise. The green economic model could encourage supply chain actors and stakeholders to participate in the new business model for a sustainable future.

Supply chains could be accountable to society for quality products, environmental protection, social equity, and economic performance. Online “firestorm” is a phrase used to describe the barrage of condemnation on social media when a company, politicians, government institutions, and celebrities infringe on the ethical and cultural values of nonmarket stakeholders (Delgado-Ballester et al., 2023; Hancock et al., 2023). Parthasara and Kumari (2021) explained that in reaction to a negative incident or questionable behavior, social media users could create a wave of negative online word-of-mouth messages within a few hours that could plunge a supply chain's reputation and financial performance. The policing characteristics of social media actors could be damaging and beneficial to supply chains, and it would be prudent for managers to strategize to seek the support of stakeholders.

Consumers' need for a meaningful relationship with organizations might have informed the shift from the product-centric era to the values-centric era of marketing. Minguéz and Javier Sese (2022) advised marketing managers to prioritize creating customer relationships before delivering other marketing intentions. Managing online customer reviews is critical in defending (a) service failure, (b) maintaining relationships, (c) regaining customer trust, and (d) repairing damaged reputation (Tran & Vu, 2021; Zhao et al., 2020). The suggestion is that management's strategic response to negative

online reviews could assess a leader's mature relationship with stakeholders. The fear of stakeholders' adverse reactions on social media platforms may force supply chain actors to act with respect and emotional maturity in response to events of questionable behavior. In effect, customers love their products and the organizations that manufactured them.

Stakeholder Values Effect

Human values are intrinsic characteristics that could drive sustainable behavior. Human values are desirable trans-situational goals that guide and determine social attitudes, ideologies, and behavior (Rokeach, 1973). Rokeach (1973) posited that individuals are containment of a system of values with differing priorities. According to Rokeach (1973), a particular ordering of these values depicts (a) differences in social and moral attitudes, (b) organizational practices, (c) institutional outlay, (d) socioeconomic development, (e) justice perception, and (f) cultural differences. Rokeach (1973) noted that the significance of human values to business practice lies in dealing with the three fundamental human problems in every society, which include (a) to what extent a person is embedded into a group, (b) how to preserve the social fabric, and (c) how to relate to the natural and social world. Assuming the dominance of rational behavior, an entrepreneur's decision to mitigate supply chain disruption may depend on the specific ordering of his or her value system. For instance, if social recognition is crucial to an entrepreneur, mitigating supply chain disruptions to please peers and society could be a priority.

Stakeholder influence on supply chains could be value-driven, motivated by the innate desire to attain terminal values or personal satisfaction. Gutman (1982) noted that

the means-end chain model could predict consumers' future purchases and the potential to encourage sustainable behavior. According to the means-end theory, consumers use products and services to achieve the desired instrumental or terminal values (Gutman, 1982). Kotler and Keller (2021) found that stakeholder influence and profound changes in consumer behavior impact an organization's strategic imperatives and marketing practices. Supply chain actors respond to changes in consumer purchase behavior and absorb the consequences of supply chain disruption to restore operations and ensure business continuity.

Stakeholders may perceive organizations with a sincere commitment to addressing their needs as those concerned with developing their instrumental values and realizing terminal values. According to Rokeach (1973), terminal values (a comfortable life, a sense of accomplishment, happiness, social recognition, inner harmony, etc.) are human values people desire to attain before the end of their lives. In contrast, instrumental values (cleanliness, imagination, logic, loving, self-control, broadmindedness, etc.) are the values individuals need to help them attain terminal values (Rokeach, 1973). Employee satisfaction (Prentice, 2022), organizational commitment (Howladar & Rahman, 2021), sustainable behavior (Koch et al., 2020; Marcus & Roy, 2019), and green innovation (Orlando et al., 2022) are the depiction of stakeholders' attempt to exercise meaningful behavior and to attain the terminal values. Stakeholders express their reliance on the human value system by resisting unsustainable behavior that tends to curtail the process of attaining terminal values.

Supply chain actors could integrate marketing and human values to co-create values with and for consumers. According to Kotler et al. (2019), business leaders should understand that the consumer (stakeholder) is well-connected to communities and look for transformation, empowerment, and cultural similarities while connecting to a brand. According to Kotler et al. (2019), the ten credos of value-centered marketing centered on love, respect, diversity, fair price, growth, information, agility, innovation, quality, and efficient delivery of services. Kotler et al. (2019) argued that the ten credos exemplify stakeholder engagement and relationship building as a foundation for supply chain management. Human values remain significant and serve as a guide for marketing gurus in developing products and services to meet customers' needs in various market segments.

Stakeholder Marketing

The generic marketing concept permeates all human endeavors and appears fundamental to human life and supply chain activities. Not all marketing investment activities will automatically improve performance, but being innovative about it brings economic benefits and determines the performance level of an enterprise (Jaisinghani & Kanjilal, 2019; Sydney-Hilton & Vila-Lopez, 2019). Purchase and Volery (2020) defined market innovation as significant changes in aesthetic designs, improved product packaging, and the implementation of innovative marketing practices. According to Kotler and Keller (2021), an integrated approach to marketing includes (a) collaborative marketing, (b) value co-creation, (c) sustainable business processes, and (c) creating transforming stories to improve customer experience. Entrepreneurs need to engage the

attention of stakeholders (innovation diffusers) to develop effective marketing practices. Stakeholders are crucial marketing partners with the potential to assist business leaders in creating a resilient supply chain.

Stakeholder engagement can be devastating and beneficial, and marketers need to choose whom to form meaningful collaboration to promote the firm's agenda. According to Nafees et al. (2021), business leaders need to understand the direct or indirect influencer contribution to buyers purchasing decisions. On social media, perceived influencer expertise, goodwill, and trustworthiness impact consumers' brand choice (Nafees et al., 2021). According to X. Wang et al. (2021), the market size of these faceless social media influencers more than tripled from 2017 to 2020, increasing from US \$3,000,000,000 to \$9,700,000,000. Stakeholder influence in marketing a brand or the products and services of an organization is effective. Supply chain actors must recognize stakeholder influence in motivating the development of strategies to mitigate supply chain disruptions.

Transition

The purpose of this study was to explore strategies business leaders of manufacturing enterprises use to mitigate supply chain disruptions using interpretive qualitative research methods and a multiple-case study approach. In Section 1, I presented the foundation and background of the study that revealed the problem, as well as the purpose of the study. Additionally, I described the nature of the study, the research method and design, and the population from which I extracted the sampling unit. In Section 1, I included the research question, interview questions, and theoretical

framework (the lens through which I viewed participants' strategies to mitigate supply chain disruptions). Furthermore, I presented the significance of the study, expatiating on the contribution to business practice and implication for social change, apart from assumptions, limitations, and delimitations of the study. I ended Section 1 with a review of academic literature, analyzing and synthesizing extant literature on strategies business leaders of manufacturing enterprises used to mitigate supply chain disruptions.

In Section 2, I describe the research process, which includes a detailed description of the data collection technique, ethical considerations, and data analysis process. I conclude Section 2 by establishing this study's reliability and validity criteria. In Section 3, I summarize the research findings, application to professional practice, and implication for social change. I end Section 3 by providing recommendations for action and further research, reflections, and conclusions.

Section 2: The Project

In this doctoral study, I engaged the epistemological philosophy of qualitative multiple-case study to explore strategies business leaders use to mitigate supply chain disruptions. The axiological stance of multiple-case study researchers is that social interaction is necessary for data collection. The need for interviewer-interviewee interactions alerts researchers to the need for a context-defined research environment. This section contains a restatement of the purpose of the study, my role in the research process, a description of the research participants, and details about the research method and design. Other topics in this section include a method of achieving data saturation, the approach used for the ethical treatment of the participants, a description of the data collection process, the data analysis technique, and the process of ensuring reliable and valid data analysis.

Purpose Statement

The purpose of this qualitative multiple-case study was to identify and explore successful strategies business leaders of manufacturing enterprises in southern Ghana use to mitigate supply chain disruptions.

Role of the Researcher

As the researcher of this multiple-case study, I was the sole instrument for the data collection process. I conducted all interviews, transcribed data, and analyzed data in this study. The interpretive qualitative researcher plays the critical role of observation, participation, interactions, maintaining warmth, and creating a supportive attitude toward interviewees during data collection (Grodal et al., 2021). Proponents of qualitative

research agree that the researcher is the primary data collection instrument responsible for ensuring the credibility and validity of the research (S. Lee & Kim, 2021; Mele et al., 2020; Berend & Deken, 2021). Mele et al. (2020) insisted that using an interview protocol outlining the interview questions streamlines the interview process, facilitates consistency, and helps to focus the interview process. I conducted semistructured interviews using the prepared interview protocol. I transcribed data and prepared data for transcript review, data interpretation, member checking, and document analysis. I assured participants of their anonymity and confidentiality in fulfilling the tenet of ethical research.

I am a business leader in the mining industry with direct experience with supply chain disruption. All expatriates on the mining site (including myself) remained on post for 7 months during the COVID-19 pandemic. These restrictions created a disruption in the work process and supply chain. My experiences during the COVID-19 pandemic are personal biases that I managed to avoid consciously adding personal biases.

I had no business or social relationship with the intended research participants. I created a rapport, developed a relaxed environment, and created a conversational atmosphere in addition to the promise of anonymity and confidentiality to participants. As a business leader and service provider in the mining industry, my influence on employees outside the area of operation may be negligible. However, I did not include participants from my client's organization. Instead, I included participants in the footwear, furniture, and building materials manufacturing industries, where I am not known to reduce the impact of familiarity or personal bias on the data collection process.

Ethical research could involve the researcher's respect for interviewees' human rights and the recognition of participants' free will. The National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (1979) established ethical guidelines that include (a) respect for persons, (b) beneficence, and (c) justice (with the inclusion of fidelity, responsibility, and integrity by the American Psychological Association) regarding a researcher's conduct with human participants. I did not use my influence to coerce individuals to participate in doctoral research, understanding that participants' consent is most critical in qualitative research. As a social constructionist, I respected peoples' contributions, whether for or against my proposals. Participants have the right to withdraw from the research study at any time. I assured them that participants' identity protection and comments are crucial in the research process.

I minimized the influence of my assumptions on the data collection process by using the formative influence timeline (FIT) technique. The FIT is a constructivist qualitative data collection technique designed to minimize researcher bias from the data collection process to ensure data credibility and reconstruction (Jones & Donmoyer, 2021). Researcher bias arises whenever the researcher's preconceived ideas and opinions influence or intrude on the data collection process (An, 2020; Chenail, 2016; Jones & Donmoyer, 2021). Jones and Donmoyer (2021) noted that the intrusion of the researcher's influence on the data collection process may force participants to say what they suspect the researcher wants to hear. According to Jones and Donmoyer (2021), when implementing the FIT technique, the researcher allows participants to tell their stories

(strategies) using notes of events placed on a timeline as a guide. With the FIT, I could not limit participants' responses to the interview questions because interviewees led the process with their narrations.

Participants who place sentimental value or exercise emotive responses to a specific disruptive occurrence may provide biased narration. Participants' bias could potentially arise from several factors, including (a) selective memory, (b) telescoping, (c) attribution, and (d) exaggeration (An, 2022). Participant bias may compromise the richness of the qualitative data by introducing falsehood in the data collection process.

The interview protocol (see Appendix A) I used for collecting data included the processes involved in the FIT technique and the proposed interview questions. Researchers use interview protocol to engender consistency, provide guidelines, and motivate order during the interview process (Mele et al., 2020; Yin, 2018). At the start of the interview, I built a rapport with the participants to ensure a relaxed and conducive conversational environment. I probed for details and context-dependent descriptions of interviewees' narrations using the approved interview questions in the protocol. I recorded the interviews with the participants' permission. I manually transcribed the interview recordings for the participants' validation.

Member checking or participants' validation is another tool I used to ensure the credibility of the interview data. I provided participants with a summary of the interview for their review to ensure I captured their inputs accurately before coding and interpretation. Member checking is a data quality or authentication protocol researchers use to increase data dependability and trust in the research findings (Hammersley, 2023;

Zairul, 2021). Member checking for the accuracy of researcher interpretations of data could increase participants, auditors, and the academic trustworthiness of the research outcomes.

Participants

The participants' eligibility criteria for this study are: (a) they must be business leaders with more than 5 years of experience, and (b) they must have been in the organization before, during, and after a disruption. Participants' eligibility criteria affect the data credibility and validity of the study (Langley & Meziani, 2020). I engaged at least two participants from each organization. I ensured that I had no prior relationship with participants to prevent a conflict of interest and to avoid introducing researcher bias.

The strategies I used to gain access to participants included identifying potential partner companies and then identifying a point of contact within that company to gain their support. Research participants are a critical component of a research study, without whom there will be no data to answer the research question (LaCroix, 2022; Zairul, 2021). I identified a suitable contact from the selected organizations to make an initial contact and request support for my research study, including the name of the individual who signed the partner agreement and the names and contact information of potential participants. Appendix B contains the invitation letter I sent to these contacts.

After securing the consent of six or more participants for the research study, I built a working relationship with them through email and phone conversations. The researcher's effort to respect participants' rights and ensure transparency increases trust and builds a healthy participant-researcher relationship (Husband, 2020). The

interviewer-interviewee power asymmetry could lead to an inimical interview atmosphere and rich data collection. A casual discussion on the phone with participants relaxed nerves and eased tension during the interview.

The purpose of this study was to explore the strategies business leaders of manufacturing enterprises use to mitigate supply chain disruptions. Singh et al. (2021) noted that participants must have experience and knowledge concerning the phenomenon under study as a prelude to providing detailed and rich data. According to Johnson et al. (2020), participants' quality is significant in accessing detailed and context-specific data. Participants involved in this study had supply chain experience and had successfully managed supply chain disruption.

Research Method and Design

Research Method

I selected the qualitative methodology to explore the strategies business leaders use to successfully mitigate supply chain disruptions. Researchers who use the qualitative method explore interviewees' thoughts, emotions, behavior, and perspectives with open-ended questions (Grodal et al., 2021; Howard-Grenville et al., 2021; Malshe & Al-Khatib, 2023). In this doctoral study, participants' opinions, perspectives, and feelings are essential to their responses to the interview questions. Though the likelihood of participants' bias because of emotional attachment to certain disruptive occurrences is high, expressive feelings form part of the richness of the data. Interviewees' rich responses could result from their experiences, knowledge, and cognitive processes (Johnson et al., 2020). The qualitative method is suitable for this study because the

process involves making sense of strategies business leaders use to mitigate supply chain disruption by engaging participants' opinions of the phenomenon in the organizational context.

Quantitative researchers use numerical data and statistical probability to generalize research findings. Advocates of quantitative research use highly structured data collection techniques and align with statistical probability in generalizing research findings (Bakker et al., 2021; Braga de Aguiar et al., 2022; Zyphur & Pierides, 2020). According to Yin (2018), quantitative researchers test theories through deductive analysis, investigating a cause-and-effect relationship through the activities of independent and dependent variables. Researchers may use the statistical probability of quantitative research to create statistical generalizations that may satisfy the curiosity of positivists; however, this doctoral research does not involve the deductive reasoning of theory testing. The quantitative method is unsuitable for this study because it will not involve collecting numerical data or the deductive reasoning of theory testing.

The mixed method research approach uses qualitative and quantitative research methods (Barros et al., 2021; Hammersley, 2023; Paoletti et al., 2021). Researchers may collect qualitative and quantitative data in the same research phase to determine how these data sets support or triangulate each other, providing a richer and more comprehensive response to the research question. My doctoral research does not involve testing hypotheses, which is the quantitative method part of the mixed research method. Therefore, the mixed method is not suitable for my study.

Research Design

In selecting a research design for the qualitative doctoral study, I considered three designs: (a) ethnography, (b) phenomenology, and (c) case study. Ethnography is about exploring customs and culture arising from ethnicity, demography, sexuality, vulnerable populations, and groups with long-term relationships and shared vision (Kelly, 2022; Oreg & Babis, 2023; Merzali & Hamarat, 2022; Thompson et al., 2021). I will not use ethnographic design because this study is not about exploring the customs and culture of participants and their organizations. Advocates of phenomenology research design identify meanings from participants' lived experiences (Kaya, 2021; Keshavarz, 2020; Kuchinke, 2023). This doctoral study is not about people's lived experiences but the strategies to mitigate supply chain disruptions in manufacturing enterprises. The phenomenological design is not suitable for my study because I will not focus on participants' lived experiences.

To explore strategies business leaders use to mitigate supply chain disruptions, researchers may require an in-depth analysis of the phenomenon in its natural settings. Researchers use case study research design to explore complex contemporary phenomena in detail in their real-time context (Alam, 2020; Brintrup et al., 2020; Takahashi & Araujo, 2020). A case study research design is context-specific, requiring a thorough description of events to enhance meaningful data interpretation (Ponterroto, 2006). I selected a case study design for this doctoral study to investigate in-depth the strategies business leaders of manufacturing enterprises use to successfully mitigate supply chain disruptions.

Population and Sampling

The target population for this multiple-case study research is business leaders of manufacturing firms in southern Ghana who have experienced and successfully managed supply chain disruptions. The target population will include three organizations and a minimum of six participants, two from each firm. I will purposely select participants with the following eligibility criteria: (a) business leaders who are privy to strategic management practices, (b) more than 5 years of experience in their current position and have been around before, during, and after a disruption, and (c) part of the team which strategized to successfully mitigate supply chain disruption.

I selected purposive sampling to get experienced and knowledgeable participants about the research topic. With purposive sampling, the researcher purposely selects participants who have experienced and knowledge of the phenomenon under study (Johnson et al., 2020; Mwita, 2022). Johnson et al. (2020) advised researchers to purposely select participants with a rich understanding of the phenomenon under study. In qualitative research, the objective is to assign meaning to an observed phenomenon in a specific context, requiring participants to be endowed with experience and knowledge.

I will also use snowball sampling as a secondary approach to participant selection. Nonprobabilistic sampling could appear in many forms and may require a sampling technique that depends on participants to identify other qualified participants. Snowball sampling is a category of volunteer sampling techniques whereby participants voluntarily choose to be part of the research rather than being chosen on the merit of knowledge and experience (Dodgson & Trotman, 2022; Martin & Murrell, 2021; Silva et al., 2022). The

snowball sampling technique occurs when the initial participant interviewed identifies other members who also induct or refer more participants until the researcher attains data saturation (Akgül & Güneş, 2023; Fanggidae et al., 2021; Kesik & Aslan, 2020). Silva et al. (2022) disclosed that the quality of the referring process determines the quality of interview responses. I asked participants to recommend peers and/or colleagues whom I could contact as potential participants.

Data Saturation

Data saturation is the point at which researchers identify no new themes in the qualitative research. Without numerical data and statistical probability, case study researchers rely on collecting enough data to develop a theory or make an informed decision (Mwita, 2022). Data saturation defines a situation in the data collection process during which additional interviews do not furnish the researcher with new information (Denzin, 1970; Marshall & Rossman, 2016). In this doctoral research study, I ensured that each interview furnishes thorough descriptions of the participants' strategies to mitigate supply chain disruption in their organizations. At the end of each interview, I transcribed and coded data using the NVivo software to develop clusters and themes (see Table 1). The purpose of achieving data saturation is that as various data sources saturate and converge, it strengthens data credibility and trustworthiness of the research outcomes.

Table 1*Clusters and Themes for Supply Chain Disruptions*

Cluster	Code	Description	Theme (disruption type)
Cluster 1	Lack of financial support Unwilling support from banks Insufficient funds Lack of emergency funds	Financial weakness could prevent a firm from employing skillful Labor, purchasing modern equipment, engaging in research, training and development, innovative activities, and producing quality products.	Financial
Cluster 2: Supplier Inefficiencies	Difficulty in sourcing materials High-cost raw materials Poor raw materials Scarcity of suppliers Supplier inefficiencies	Supplier inefficiencies could deplete raw material inputs, preventing the organization from servicing customers satisfactorily. Supplier inefficiencies are a conduit to financial loss.	Manufactured technological
Cluster 3: Customer Issues	Customer complaints Customer mistrust Customer anger	Customer mistrust of an organization could lead to product launch failure. Customer mistrust means the manufactured products could remain on the shelves, a hazardous situation for any supply chain, and could lead to financial loss.	Manufactured
Cluster 4: Unsustainable Energy	Energy-related problems Unstable energy Inefficient energy High cost of energy	Old and new machines depend on energy to perform. Unsustainable energy implies machine usage would be limited to a few hours, leading to low inventory. Without management's support, unsustainable energy could lead to low performance and	Manufactured technological

Cluster	Code	Description	Theme (disruption type)
		substantial financial loss.	
Cluster 5: Political Inefficiency	Government institution corruption High inflation High taxes Poor road High foreign exchange rate High interest rate	Issues of excessive taxation, abnormal interest rates, high inflation, and so on result from political inefficiencies. These problems make it difficult for organizations to operate effectively.	Political
Cluster 6: Machine Failure	Frequent machine failure Machine failure Old machines High cost of spare parts	Machine failure could arise from many factors. A failure could derail product targets since production relies on continuous machine operations.	Manufactured technological
Cluster 7: Unskilled Labor	Unskilled labor Poor education Illiteracy	The success of any organization or supply chain depends on employees and what they know. Unskilled labor could disturb the development of new or significantly improved products. With persistent innovation, a firm may improve performance.	Manufactured
Cluster 8: Bad Reputation	Bad reputation	Numerous customers' buying behaviors depend on the advice of a friend or a family member. Advice on a firm's bad reputation could damage customer loyalty and productivity.	Manufactured
Cluster 9	Employee absenteeism Employee sickness and health issues Employee turnover Occupational hazards	Employee absenteeism could lead to production challenges and financial loss.	Manufactured
Cluster 10	Delay in product delivery Product delay	Delays in product manufacture or delivery to customers could lead to a break in customer loyalty.	Technological

Cluster	Code	Description	Theme (disruption type)
		Delivery delays may cause contractual complications. A customer rejecting a product could result in disruption and financial loss.	
Cluster 11	COVID-19 pandemic Rainfall activities Site flooding	In the event of persistent rainfall, flooding, or a pandemic such as COVID-19, employees would be removed from the work environment. A natural disruption could lead to enormous financial loss due to inactivity.	Natural
Cluster 12: Theft	Stealing company materials Thieves invade the company site. Transportation-related theft Bank employees' theft	Most organizations or start-ups can manage minor theft by employees or people outside the organization. However, stealing critical equipment and gadgets may disrupt operations and lead to financial loss.	Manufactured
Cluster 13: Threats From External Forces	Community anger External influence Threat from competitors	Government institutions, non-governmental organizations, the media, angry customers, and other interested groups tend to disrupt an organization's performance.	Manufactured
Cluster 14: Poor Communication	Poor communication	Intrafirm or interfirm communication is critical in delivering customer orders. A wrong reword of management instructions could lead to over-production or too little production.	Manufactured technological
Cluster 15: Leadership Issues	Poor leadership Poor quality leader Unqualified leader	A leader or leadership influence is a significant factor in the production	Manufactured

Cluster	Code	Description	Theme (disruption type)
		process. A leader's inaction could demoralize employees, enhance a poor working environment, and create occupational hazards. A leader's poor perception and understanding are factors of financial loss.	
Cluster 16: Product Innovation	Poor product quality Product damage Lack of product innovation	Customers generally love products that draw them into a psychological state of ownership. Inferior products are disappointing and annoying to customers and could curtail customer loyalty.	Process
Cluster 17: Inefficient logistics	Transport delay Transport breakdown Vehicle accident Old vehicles	Issues with transporting raw materials to manufacturing sites or carrying finished products to retailers could lead to enormous financial losses.	Technological

Interview Settings

The relationship-dependent nature of face-to-face interviews makes it essential for the qualitative researcher to establish a time and place that suits the participant. The elements of a good interview include (a) the investigator's empathy, (b) attentiveness, (c) warmth, (d) humor, (e) consideration for participants' suggestions, and (f) location flexibility (Boulton et al., 2023; Kitchen, 2019; Lochmiller, 2023). According to Boulton et al. (2023), researchers must acknowledge that interviewees would detect the

researcher's judgmental attitudes, discomfort, and strong emotions that could disturb the data collection process. I was sensitive to participants' intelligence and emotions and did not disturb their attention during the data collection. I encouraged participants to choose the day, time, and location best suited them for the interview. I prepared emotionally and psychologically in advance for the interview. As a proponent of using FIT, I allowed participants to narrate their stories concerning how they successfully strategized to mitigate supply chain disruptions. I probed them to gain additional insight and clarify context-specific incidents.

Ethical Research

I used the consent form to enlighten participants about the following: (a) implications of participation, (b) full disclosure of the purpose of the study, (c) benefits of participation, and (d) any potential harm they may encounter during the research. The case study research design involves human interactions, increasing the potential for researchers to abuse interviewees' rights (Mwati, 2022). Researchers must comply with the tenets of ethical research and the informed consent agreements (Akgül & Güneş, 2023; Lewis et al., 2023; Mwati, 2022). I followed the ethical guidelines of the *Belmont Report*, and I used Walden University's Institutional Review Board Forms A to obtain ethical research approval. I commenced data collection only after receiving approval from the Walden University IRB (approval no. 06-04-24-0825412).

Participants who wish to withdraw from this research study may do so anytime for any reason. Per the *Belmont Report* and other ethical codes of research, participants should have the right to withdraw their candidacy from the research study regardless of

reason (National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research, 1979; Staksrud, 2019). The *Belmont Report's* insistence on participants' respect, beneficence, and justice could imply that selected interviewees may withdraw from the research study at any time without fear of reprisal, disadvantage, or harm to them. I ensured participants' and organizations' anonymity by masking names with codes in this research study.

Informed consent is a researcher-participant contract that defines the tenets of research ethics regarding their roles and responsibilities during the research study. Rawlings et al. (2020) argued that the informed consent process commences with information and terminates with consent. The tenets of the informed consent agreement include the following: (a) the non-compensated nature of the study, (b) the inherent voluntary disposition of the study, (c) the promise of confidentiality, and (d) the need to ensure the anonymity of participants and organizations (Spilda et al., 2022; Srivastava et al., 2022; Rawlings et al., 2020). The informed consent process depicts the need for researcher-participant collaboration whereby the researcher connives with participants in a context-dependent ecology. I sent the informed consent form to all six purposely selected participants and received an "I consent" response. I did not offer any incentives to participants who agreed to participate in this study. Participants willingly chose to tell me the success stories of their organizations.

Data Security

Participants' honest responses could depend on the assurance that what they say to researchers would be used for academic purposes and that the probability of data

security breaches would be zero. I protected participants from exposure should sensitive information not remain confidential by ensuring data security and interviewees' confidentiality. I also masked the participants' and organizations' names with a letter-based code. I displayed the Walden University IRB approval number on the consent form for all participants. I have stored all data on a computer hard drive and keep a copy on an external hard drive to ensure data security and accessibility. I have stored the electronic data on the computer and external hard drives, protected by a password, and secured them in a locked space. I am keeping all data files for 5 years, after which I will destroy them following the guidelines at Walden University.

Data Collection Instruments

In this doctoral study, I was the primary instrument for data collection through semistructured interviews and reviewing publicly available documents. Yin's (2018) six data sources include direct observation, participant observation, artifacts, archival records, documents, and interviews. I used interview protocol during the participant interview. Apart from an agreed-upon audio recording and written notes, I noted participants' verbal cues, body language, and other non-verbal communication signs before, during, and after the interview process. I used NVivo software to code and analyze data for themes.

Identifying potential strategies to mitigate supply chain disruption is the core mandate of this qualitative multiple-case study. The effectiveness of the process might depend on data credibility, transparency of the method, and dependability of the research process. Case study researchers depend on validity and reliability (dependability)

measures to determine the quality of the research process (Grodal et al., 2021; Jarzabkowski et al., 2021; Priya, 2020). According to Maharg and Yenssen (2022), detailed documentation of the research process and the use of a database improves the replicability of the research process. I used the interview protocol to ensure data consistency, reliability, and validity. With the participant's approval, I audio-recorded the interview to ensure the accuracy of the transcript. I also sent a summary of the transcript to each participant for review. Participant's validation of data enhances data quality and improves authenticity (Hammersley, 2023 & Mele et al., 2020). I shared the research findings with participants to verify the accuracy of my interpretation of the interviewee's narratives. The quality of qualitative research findings depends on both the researchers and participants, where the two agents must cooperate to develop rich, credible, and authentic data.

The axiological assumptions of qualitative research depict the investigator-participant interviews as a social interaction that could exemplify the ontological stance of multiple realities as enlisted in qualitative research methods. Azgin (2018) agreed that how a situation occurs arises in language, depicting the significance of interviews in providing meaning to an event. The belief in multiple realities implies that truth is subjective and constructed by people with different ideological persuasions (Hanson-DeFusco, 2023; Patton, 2022; Singh et al., 2021). I used open-ended interviews and probing questions to motivate interviewees to offer honest, detailed, and in-depth responses.

Data Collection Technique

I collected data from participants through face-to-face interactions using semistructured or open-ended interview questions. Compared to telephone, online audio, or video conferencing, case study researchers who use face-to-face interviews enjoy greater focus enhanced by human interactions (Basch et al., 2021; Maharg & Yenssen, 2022). Researchers who advocate for face-to-face interviews can record facial expressions, non-verbal cues, and other participants' emotional expressions as essential variables of rich data (Basch et al., 2021; Basch & Melchers, 2021; Kidron, 2021). Despite the popularity of the interview protocol as a data-collecting procedure, using interview questions could limit participants' responses and signal to interviewees what the researcher wants to hear (Jones & Donmoyer, 2021). I used an interview protocol (see Appendix A) to guide data collection during the participant interviews. There is still the potential for the researcher's opinion to be influenced by the data quality. I will avoid bias by allowing participants to freely answer the research questions, withholding my opinion, and using follow-up questions to capture additional details.

Data credibility is essential in accurately reconstructing interviewees' interpretations of the social world, making bias reduction crucial in the data collection process. Jones and Donmoyer (2021) advocated the use of the FIT, a data collection technique to limit the intrusion of a researcher's a priori assumptions regarding the interview process and the data collected. The versatility of using FIT as a bias-minimizing technique is achieved through face-to-face interactions.

The research findings by Jones and Donmoyer (2022) indicated that the FIT technique involves the following steps:

1. Provide participants with a timeline form.
2. Ask participants to identify specific occurrences (supply chain disruptions) that influence the current status of the organization.
3. Give participants 5 min at the start of the interview to write down notes on the form about these occurrences.
4. Ask participants to describe each occurrence.
5. Use the approved interview questions in the interview protocol as a guide to probe interviewees and to request context-specific details.

Member Checking

I will use a member checking review to authenticate my understanding of participants' narration concerning their strategies to mitigate supply chain disruptions. I involved interviewees in checking the veracity of the meanings assigned to the data collected. Member checking or participants' validation is a quality validation technique in which researchers confer and negotiate theme interpretation with participants (Hammersley, 2023; Lincoln & Guba, 1985). Effective member checking improves the accuracy of data interpretation or sense-making, which could lead to the trustworthiness of the research findings (Hammersley, 2023; Lindheim, 2023; Mele et al., 2020). Participants corrected the transcripts, after which they confirmed the authenticity of my interpretation of the data.

Inaccurate participant responses or incorrect interpretation of data could decrease data richness, give false data saturation, and erroneous convergence criteria. I addressed any perceived data inaccuracies in my data analysis. A participant's decision to withdraw certain statements during member checking could introduce dependability and credibility issues, making it difficult to authenticate the data collected (Hod et al., 2020; LaCroix, 2022; Iivari, 2018). I considered instances where participants may change the statements of the initial narration apart from correcting my interpretation of data. I asked the participants to check the summary for accuracy and alert me if I needed to make changes.

Data Organization Technique

Data organization is the method of categorizing and classifying data to make it manageable and more practical (Jarvenpaa & Essén, 2023). Additionally, data organization includes managing digital records and an efficient storage system (Jarvenpaa & Essén, 2023). To track research data, I audio-recorded interviews using a Sony electronic recorder. I downloaded the recorded interviews from the tape recorder and uploaded them into the NVivo software for transcription and data analysis at the end of each interview. I used NVivo software to code interview responses. Mishra and Dey (2022) disclosed that data analysis follows a three-level coding as follows: (a) open or initial coding, (b) second-level or focus coding, and (c) a third-level coding defining aggregated dimension of theoretical themes or categories. I will apply this three-level coding approach.

At the initial coding stage, Mishra and Dey (2022) advised researchers to avoid chunk coding (multiple sentence coding) rather than engage in line-by-line coding to

detect hidden patterns in participants' responses. The aim of the second-level coding is for the researcher to look for repeated but significant codes and detect similar codes from different participants or sources (Alam, 2020; Mishra & Dey, 2022; Mohandas et al., 2022). At the third-level coding, Mishra and Dey (2022) reiterated that the researcher aggregates second-level or focused codes into theoretical codes or themes that may depict divergent or complementary characteristics with previous studies. Convergence of themes may imply confirming (synergistic positioning) previous research findings. In contrast, dissimilarities between themes (antagonistic positioning) may not necessarily depict a lack of rigor and quality but improve (theory extension or new theory development) the scope of the theory that grounds the study.

The intrusion of researcher opinion in qualitative research is a common phenomenon in interpretive qualitative research and could lead to data credibility challenges. Reflexivity is the researcher's recognition of their influence on the research process (Nikidehaghani et al., 2023; Mason-Bish, 2018; Skukauskaite et al., 2021). Researchers need to be transparent about occasions when their personal bias influences the quality of the research process (Zairul, 2021). I kept a journal of my thoughts, feelings, uncertainties, values, beliefs, and assumptions that emerged during the research process.

I will use member checking to verify my interpretation of participant data. Following completion of the study, I will move all data to an external hard drive and store it for 5 years according to Walden University ethical research guidelines.

Data Analysis

Data Triangulation

I used interviews and document reviews to engender triangulation of the data as part of my data analysis process. Four types of triangulations allow for multiple sources and perspectives in data analysis. These are (a) data, (b) methodological, (c) investigator, and (d) theory (Denzin, 1970; Marshall & Rossman, 2016; Musa & Isha, 2021). I will use data triangulation to develop converging lines of inquiry from interview data, financial records, sustainability reports, and supply chain resilient reports. I used data triangulation to strengthen the construct validity of the research process, noting that I may have to employ rival explanations to improve the trustworthiness of the research outcomes. I will use the NVivo software to code interview responses. Mishra and Dey (2022) disclosed that data analysis follows a three-level coding as follows: (1) open or initial coding, (2) second-level or focus coding, and (3) a third-level coding defining aggregated dimension of theoretical themes or categories. I will apply this three-level coding approach.

Data Analysis

In a naturalistic inquiry such as case study research, data analysis may involve several steps before extracting patterns, categories, and themes for interpretation and reaching conclusions. I will use Yin's (2011) five steps for data analysis. Yin's (2011) five steps of data analysis include (1) compiling data, (2) disassembling data, (3) reassembling data, (4) interpreting the meanings, and (5) concluding the data analysis. Apart from Yin's (2011) five data analysis steps, I used thematic analysis (Bruan & Clarke, 2006) to develop themes and establish the theoretical contributions.

Reliability and Validity

Reliability

Reliability is a measure of the trustworthiness of the qualitative research study and indicates the ability to reconstruct research findings. I used an interview protocol and asked follow-up questions to probe for details and context-specific information to foster reliability in this study. I reduced researcher bias by using the FIT technique, allowing participants autonomy during data collection. Armstrong (2022) reiterated that reliable research findings indicate dependability, stability, consistency, and accuracy. According to Lincoln and Guba (1985), reliable interview data indicates that interviewees' responses were consistent, honest, and dependable, whereas reliable research findings define the degree of trustworthiness. Reliability and dependability are measures of validity and serve as a test for replicability of the study.

Validity

Researchers who ensure the validity of qualitative research may answer two basic questions: (a) how can auditors be sure the account provided by the researcher is accurate, and (b) to what extent are the research outcomes transferable? Maxwell (1992) categorizes validity into internal validity (descriptive, interpretive, and theoretical types) and external validity (evaluative and generalizable types). According to Maxwell (1992), internal validity describes data credibility and trustworthiness of the research findings and answers to question (a). Maxwell (1992) noted that external validity depicts the strength of data sense-making and transferability of the research findings and answers

question (b). The validity criteria of research are the description of the extent of data credibility, trustworthiness, and transferability of the research outcomes.

Credibility

In qualitative multiple-case study research, ensuring validity may include engaging or conferring with participants to authenticate the researcher's interpretation of data. Participant validation or member checking is a qualitative research technique whereby researchers cooperate with interviewees to ensure efficient transcription and interpretation of responses (Iivari, 2018; LaCroix, 2022; Langley & Meziani, 2020). Member checking improves the quality of naturalistic inquiry as a measure of credibility or internal validity of the research process (Armstrong, 2022; LaCroix, 2022). As indicated in the member checking section, I presented a summary of the transcribed data and my interpretations to participants for their validation.

Assessing the validity of qualitative multiple-case study research is synonymous with ensuring credible data. Data credibility is the extent of alignment of participants' perspectives and the actual state of the phenomenon under investigation (Blom & Neimann, 2022). In this doctoral study, I involved participants as co-analysts and co-interpretors to enhance the believability of my interpretation of strategies to mitigate supply disruptions.

The naturalist view of proving the qualitative research study's authenticity, validity, and trustworthiness may include supporting data with evidence from multiple sources. Data triangulation is a research validation technique that strengthens the construct validity of the research by improving the understanding and interpretation of

phenomena with different data and methods (Denzin, 1970; Yin, 2018; Hanson-DeFusco, 2023). Denzin (1970) revealed that different data sources arise by varying time, persons, places, or settings. Keeping time, place, and settings constant, I sourced data through interviews and documents such as financial reports, sustainability reports, annual reports, cyber security reports, supply chain resilience reports, and other publicly available documents relevant to this study.

Dependability

I ensured the dependability of this study by including an audit trail and a detailed description of the methodology invoked in the study. The dependability of qualitative research is a measure of trustworthiness and indicates the possibility of replicating the qualitative research findings using comparable contexts and participants (Lincoln & Guba, 1985; Singh et al., 2021). Future researchers are the best judge to determine the replicability and transferability of a case study research.

Superficial responses to interview questions may lead to shallow data presentation and analysis that could reduce the trustworthiness of the research outcomes. As a dependability improvement strategy, Ryle (1949) advised researchers to include context-dependent description, detail analysis, and thorough interpretation of data. Ponterroto (2006) insisted that a thick description of data must include the thoughts and feelings of participants. According to Ponterroto (2006), a thorough description of events must capture the complex relationship between participants and the phenomenon. I captured detailed descriptions during the interview process using the interview protocol and follow-up questions as needed.

Confirmability

Researchers may need to confirm the trustworthiness of their work by comparing the research outcomes with previous research studies. Blom and Neimann (2022) noted that confirmability defines how well the researcher understood and presented informants' responses devoid of investigator preferences and biases. Mishra and Dey (2022) agreed that the three levels of coding must end with themes that may complement the thematic analysis of previous literature or diverge from it. Having achieved thematic exhaustion, some themes may portray synergistic positioning or theme similarities, confirming previous research findings or the conceptual framework.

Developed themes may sometimes portray dissimilar characteristics compared to the conceptual framework. Antagonistic positioning or the observance of dissimilar themes could refine the theoretical lens of this study (Alam, 2020; Ridder et al., 2012; Schindler et al., 2020). I ensured the doctoral research findings did not deviate from the interviewees' responses. If emerging themes confirm the findings of extant literature (conceptual framework), it will improve the degree of trustworthiness of the doctoral study. Otherwise, the developed themes may refine the existing theory, or a new theory may emerge from the study.

Transferability

Qualitative multiple-case study researchers may have to establish the trustworthiness of the research by enhancing the transferability of the research findings. In the qualitative study, researchers generalize the research outcomes to the theoretical proposition (Chenail, 2016; Berend & Deken, 2021). Yin (2018) proposed analytic

generalizability for the case study researcher. The conditions under which the multiple-case study research findings are transferable are the similarity of context and the availability of sufficient information on the study's context (Blom & Niemann, 2022). I provided sufficient details on the study context to help future researchers replicate and transfer the study to similar entrepreneurial phenomena. Findings from the doctoral study may not be transferable in another region or country where business leaders have different mindsets and perceptions of the business world. The transferability of interpretive qualitative research findings could be the prerogative of future researchers.

Achievement of Data Saturation

Naturalistic inquirers do not have the advantage of using numerical statistics to determine the effect size or the number of participants that may qualify as sufficient. Based on nonprobabilistic sampling, qualitative researchers purposively select participants to support literal replication or align with theoretical replication (Yin, 2018). Each purposely selected participant needs to add to the collected data until further interviews become a repetition of available data concerning a given phenomenon (Lincoln & Guba, 1985; Mishra & Dey, 2022). In this doctoral study, I interviewed participants from different manufacturing enterprises until data received from another CEO repeated the story from peers. I interviewed two participants in each organization to ensure data convergence and saturation for each case.

I probed participants to avoid superficial descriptions of cases that are void of contextual influence. Instead of thick descriptions, thin descriptions are responses and interpretations that lack context and cultural significance (Ponterotto, 2006; Ryle, 1949).

According to Yin (2018), a maximum of ten cases should be sufficient for a researcher to achieve data saturation. Achieving data saturation may not suffice as credible data if the researcher does not probe interviewees for contextual meaning or cultural significance of specific words and sentences that should enrich collected data.

Transition and Summary

Section 2 of the doctoral study depicts the interactions between the researcher and participants as the researcher struggles to produce reliable data to find answers to the research question. In Section 2, I provided details on participants, research method, research design, population and sampling, and ethical research. Other topics include data collection technique, data collection instrument, data organization technique, data analysis, reliability, and validity. As this study's primary data collection instrument, I will use the FIT technique, face-to-face interviews, and publicly available documents related to this study.

In Section 3, I present my findings, which include tables depicting participants' demographics, significant codes, sub-themes, and themes. Section 3 also contains figures displaying factors of thematic analysis and theoretical contributions. Other elements of Section 3 include (a) application to professional practice, (b) implication for social change, and (c) recommendation for action and future research. In the Reflections subsection, I describe events and aspects of the research processes that led to the development of the theory. The conclusion statement is the final subsection of the research write-up concerning qualitative multiple-case study research on strategies business leaders of manufacturing enterprises use to mitigate supply chain disruptions.

Section 3: Application to Professional Practice and Implications for Social Change

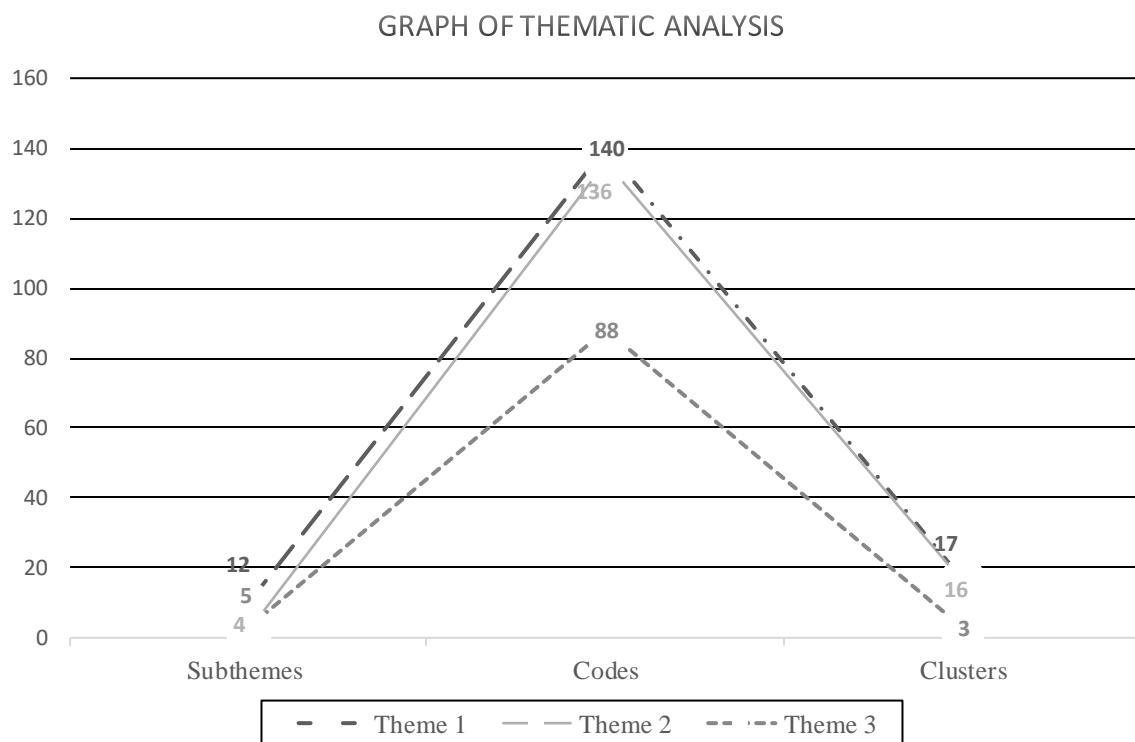
The purpose of this qualitative multiple-case study was to identify and explore successful strategies business leaders of manufacturing enterprises in southern Ghana use to mitigate supply chain disruptions. Research findings after thematic analysis (Braun & Clarke, 2006) indicated that business leaders in southern Ghana use three strategies to mitigate supply chain disruptions. These strategies are (a) engage employees, develop customer interest, and manage suppliers; (b) encourage interfirm and institutional collaboration; and (c) address adverse behavior among stakeholders. The “address adverse behavior among stakeholders” strategy is a new addition to the stakeholder theory that emanated from this doctoral study. The implication for business practice is that stakeholders' adverse behavior is a source of motivation to mitigate supply chain disruption. Other findings included five causes of supply chain disruptions: natural, man-made, process, technological, and financial.

Presentation of the Findings

The overarching research question for this study was, What strategies do business leaders of manufacturing enterprises in southern Ghana use to mitigate supply chain disruptions? I conducted and audio-recorded face-to-face interviews using the FIT technique and open-ended or semistructured questions. Using thematic analysis (Braun & Clarke, 2006; Byrne, 2021), three themes emerged as the research findings of this doctoral research. Figure 1 depicts the stages involved in theme development, including creating 364 codes, gathering 36 clusters, and regrouping 21 subthemes to generate 3 themes.

Figure 1

Graphical Representation of Themes, Subthemes, Clusters, and Codes



Note. Figure 1 summarizes the thematic analysis results, which followed Braun and Clarke's (2006) method. The graph depicts 364 codes involving 140 for Theme 1, 136 for Theme 2, and 88 for Theme 3. Of the 364 codes, 36 clusters emerged: 17 for Theme 1, 16 for Theme 2, and three for Theme 3. From the 36 clusters, 21 subthemes emerged: 12 for Theme 1, five for Theme 2, and three for Theme 3.

Themes

The answers to the research question, “What strategies do business leaders of manufacturing enterprises in southern Ghana use to mitigate supply chain disruptions,”

included three themes or categories. The participants' experiences described these emergent themes as effective in assisting business leaders to prevent financial loss after an unexpected cessation of normal operations. The three themes or strategies that evolved from the research study were (a) engage employees, develop customer interest, and manage suppliers; (b) encourage interfirm and institutional collaboration; and (c) address adverse behavior among stakeholders. Table 2 describes significant codes, subthemes, and themes obtained after thematic analysis of data collected from the six participants.

Codes describe the ideas behind a statement in a sentence and form the fundamental basis for developing meaningful themes (Byrne, 2021). According to Braun and Clarke (2023), case study research involves the researcher's interpretation of data. The underlying concept of interpretivism makes generated themes dependent on the researcher's understanding and general knowledge. The probability of researchers generating different themes from the same research question is high.

In this research study, I developed subthemes from clusters. Clusters describe a group of codes with shared meaning. According to Braun and Clarke's (2006) six-phase thematic analysis, subthemes are unrefined themes with the potential to emerge as themes. Having described, refined, and renamed subthemes, the three themes emerged from this doctoral study as answers to the research question.

Table 2*Themes and Subthemes for Supply Chain Mitigation Strategies*

Theme	Selected code	Subtheme
Engage employees, develop customer interest, and manage suppliers.	Employees	Recognizing employee contributions. Engaging employees
	Customers	Developing robust financial status Customer management. Avoiding customer frustration and mistrust.
	Suppliers	Customer research Developing a solid financial status Engage multiple suppliers. Developing supplier efficiency Ensuring stable, sustainable, and efficient energy Raw material stockpile and inventory management
Encourage interfirm and institutional collaboration.	Community demands	Accessing emergency funds Responding to community challenges Developing effective corporate social responsibilities.
	Collaboration	Engaging in philanthropic activities Building relationships with people and institutions outside the organization. Collaboration with external forces (government, non-government, the media, financial institutions)
Address adverse behavior among stakeholders.	Unethical behavior	Encouraged by employee anger, frustrations, and poor work attitude. Customer anger and frustrations Motivated by community anger. Management ineptitude and leadership inefficiency

Note. Subthemes emerged from clusters after coding. Clusters are a group of codes with a common ideological persuasion. Themes emerged after renaming subthemes to include all factors. The selected codes are the generalized descriptions of the themes.

Theme 1: Engage Employees, Develop Customer Interest, and Manage Supplier

Strategy

The existence and sustainability of a supply chain hinge on the skills of employees, supplier efficiency, customer loyalty, and the activities of other members of the organization. H. Li et al. (2022) included the elements of Theme 1 (employees, customers, suppliers) as part of internal or primary stakeholders who can impact and are influenced by the performance of the supply chain. Employees, customers, and suppliers are market stakeholders (Hajmohammad et al., 2021) because the organization or supply chain's existence, value, and marketability depend on them.

Employees. All participants, P1a, P1b, P2a, P2b, P3a, and P3b, agreed that employees are the most critical asset in their establishment. Employees' actions and inactions could influence performance and supply chain mitigating strategies. Participants' perceptions of employees' role in the organization align with the research findings by Hajmohammad et al. (2021). P3a stated,

Unskilled labor is a dangerous state for any organization. An organization's core competencies depend on the skills of its employees. Skillful employees ensure product quality, machine efficiency, product innovation, and a conducive working environment. We train our employees to function at optimum.

P3b and P1a agreed with the assertion made by P3a concerning the need to develop employees' skills. These participants revealed that employees' education and skills development could reveal talents such as social skills, leadership propensities, communication abilities, and other skill sets. P1a noted, "Over the years, we have spent

money to train employees on various aspects of the manufacturing process. Mechanics received refresher courses and clay preparers received training on the quality enhancement process. So far, the employees' development agenda has paid off." Public documents from partner organizations P1, P2, and P3 outlined employees' training at various levels. Records of competency training and development were also available.

One of the subthemes under Theme 1 indicated by P3a and P3b is "process, product, and market innovations" as a supply chain mitigation strategy. P3a and P3b agreed that business process innovation is critical in developing supply chain resilience because an organization must reinvent itself after a disruptive event. Andreini et al. (2022) and Klos et al. (2023) discussed business process innovation and depicted its significance to supply chain resilience. P3b asserted, "We are always improving the quality of the baked bricks, prompt delivery of products, efficient modes of transport, and packaging. With an increasing customer base nationwide, we collaborate with customers to improve our products and services."

P2a mentioned that engaging employees' commitment to fulfill the organization's vision is fundamental to business process innovation. However, persistent employee absence could cause significant pecuniary loss. P2a, P2b, P3a, and P3b agreed that employee absenteeism and turnover are unhealthy for financial performance. P3a stated,

Apart from the unskilled labor force, employees' absenteeism and turnover could delay our effort to fight disruptions. We need employees to manage the production process, and their absence creates a vacuum in the production line. As mentioned, employee turnover creates unskilled labor and its associated problems.

A statement from P3b affirmed the claim made by P3a regarding employee turnover. In contrast, P1a and P1b had no problem with employee absenteeism. Records of employees' attendance books confirmed the story of absenteeism and employee turnover in partner organizations P2 and P3.

Of the six participants, only P1a and P1b mentioned employees' strike action as a disruptive phenomenon. P1a stated, "About a year ago, our remuneration system was bad, and employees observed the differences in the pay structure. One morning, employees locked the main gate and would not allow anybody to enter except the CEO." I observed on the office noticeboard that a memo regarding the strike action remained posted there after 2 years. P1b concluded, "There has never been another strike action since then because management created a robust salary system that pleased everybody. Employees come to work with smiles on their faces." All the research participants agreed that employees are an essential part of the organization whose actions or inactions can destabilize or strengthen the existence of the supply chain.

Customers. Statements submitted by P3a and P3b indicated that customer anger and frustration could create a bad reputation for an organization. Management's excellent handling of a disruptive event could draw customer empathy and increase product performance. In mitigating supply chain disruptions, P3a stated, "Our customer relationships have improved tremendously. With the research team constantly working to expand the scope of the existing market, customer complaints have reduced." P3a agreed with Wei et al.'s (2022) suggestion about customer-side resilience options. According to Wei et al., a supply chain must strategize to serve customers irrespective of a disruption.

The researchers agreed to production recapture, ship rerouting, cargo prioritization, and export diversion for import use as strategies to maintain customer services during a disruption.

P3a disclosed that a few customers refuse to understand the consequences of a disruptive event on the organization, but a sizable number sympathize with management in support of the mitigating strategies. P32 stated, "What customers think about our products is critical to us because their loyalty has kept us in business."

P2b reiterated the crucial position of customers in the performance of a supply chain before, during, and after a disruption. Customer approval and appreciation of how the firm managed a disruption could serve as a supply chain resilience option. Research findings by Can Saglam et al. (2022) indicated that relational commitment and reciprocity between the organization and customers serve as a motivation to mitigate supply chain disruption. P2b stated, "We know customers are our only source of income, and if we cannot be timely, we must compensate them by providing high-quality products."

P1a's and P1b's stories revealed that empathy toward customers was a significant motivation to rejuvenate the disrupted supply chain. The hope is that through serving customers' needs, the organization will increase in financial strength and develop a more resilient enterprise. Klos et al. (2023) disclosed that supply chain actors use product, process, and market innovations to increase the efficiency of the manufacturing process, product quality, and packaging. P1b admitted, "Maintaining profitability and solid financial strength is essential to any business, but keeping employees active and

customers satisfied depicts an intention that defines a state of moral obligation.

Employees' and customers' happiness is our satisfaction."

The assertion made by P1b introduced the human value system in the discussion toward creating supply chain mitigating strategies. Business leaders, employees, customers, and suppliers have the inherent desire to attain terminal values, such as equality, inner harmony, a sense of accomplishment, happiness, self-respect, and social recognition (Rokeach, 1973). The human value concept places a more robust demand on business leaders to serve customers if that process will assist them in attaining terminal values. In this instance, the motivation to mitigate supply chain disruption is intrinsic and a moral obligation, as noted by P1b.

Suppliers. P3a stated, "Our major suppliers of raw material inputs are landowners and chiefs of traditional areas." Suppliers of raw material inputs serve manufacturing firms in various capacities. The manufacturing firms (suppliers) provide products as material input for another manufacturing firm (supplier). The process continues until the final manufacturer (supplier) creates a finished product from intermediary materials. P3b stated,

A delay in product delivery on our part as suppliers could delay the project completion of a supplier to another supplier, which could cause enormous monetary loss. A transportation supplier ensures the finished product reaches retailers who transfer the product to customers.

Paul et al. (2020) agreed that a given supply chain contains suppliers, making supplier management critical to the success of a supply chain mitigating strategy.

P2a, P2b, P3a, and P3b recommended using multiple suppliers as a supply chain mitigating strategy. The idea is to maintain the flow of material inputs during a disruption at any stage of the supply chain. Yu et al. (2019) disclosed that an organization must engage backup suppliers to replace disrupted suppliers to respond successfully to disruptions. P3b stated,

Another strategy was to outsource raw materials from multiple suppliers. We usually agree with suppliers to give us a specific kind of clay in a given volume per year. On other occasions, we would offer contracts to different suppliers, depending on the location of a specific raw material. We use various suppliers for the same or different quality raw materials. When one supplier fails to honor the contract, another can fill the gap. In this way, we have a constant supply of raw materials of various kinds.

P2b indicated that supplier management includes ensuring adequate transportation, cost reduction, timely delivery of material inputs, and cost-sharing. In an environment of bribery and corruption, one organization must not shoulder the cost of paying hungry government officials. P2b intimated that “Because we depend mostly on “bush-cuts” we negotiate with the suppliers for a good deal. Past experiences have taught us to introduce cost-at-site, the final cost of raw materials after all payments along the route. So, you see, our suppliers are reasonable and share the cost of bribery with us.” Supplier activity forms part of the strategic imperatives of the supply chain. Table 2 illustrates how employees, customers, and suppliers contribute significantly to business leaders' strategies to mitigate supply chain disruption.

The findings in this research study indicate that employees' work ethics, customers' loyalty, and suppliers' activities form part of the strategies businesses use to mitigate supply chain disruptions. Supported by extant literature, Theme 1 (internal stakeholders) influenced business leaders' decision to mitigate supply chain disruption or create a resilient supply chain. Business leaders and supply chain actors must engage with employees, customers, and suppliers as they strategize to reduce the impact of a disruption and avoid monetary loss. As indicated in Figure 1, business leaders relied heavily on Theme 1 as they strategized to mitigate supply chain disruption successfully. Theme 1 (engage employees, develop customer interest, and manage supplier strategy) confirmed stakeholder theory as depicted in Figure 2.

Connection to the Conceptual Framework

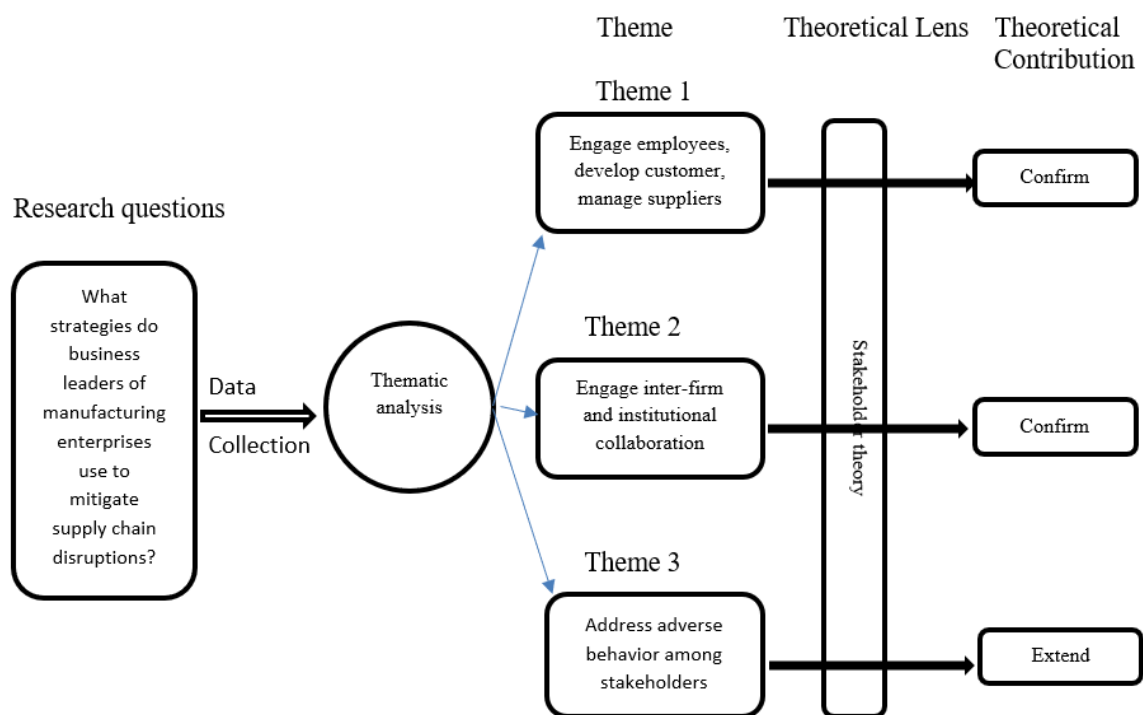
The normative logic of stakeholder theory (Sajjad et al., 2020) states that supply chain actors must include stakeholders in the organization's strategic imperatives. The extant literature revealed that business leaders must treat stakeholders as the final objective of the organization (Donaldson & Preston, 1998; Sajjad et al., 2020). According to Sajjad et al. (2020), supply chain actors applying the normative logic must consider how they can make employees, customers, and suppliers better off as they decide on mitigating strategies. Business leaders may use employees, customers, and suppliers to achieve objectives and include them as an integral part of the organizational strategic imperatives. The "engage employees, develop customer interest, and manage supplier strategy" aligns with the instrumental and normative logic of stakeholder theory. Theme 1 confirmed that business leaders can be successful if they design strategies to mitigate

various disruptions by engaging employee commitment, customer loyalty, and supplier dedication.

Connection to the Literature Review

Participants' responses revealed that the "internal stakeholder management strategy" contains 65% of the strategies they used to mitigate supply chain disruption. This is not surprising because internal stakeholders (employees, customers, and suppliers) own, operate, and sustain the organization and associated supply chain. H. Li et al. (2022) referred to internal stakeholders as primary stakeholders, indicating that their action or inaction will improve performance or plunge the organization into debt. Hajmohammad et al. (2021) defined internal stakeholders as market stakeholders to portray the group as the "face" of the organization. As the primary organization representatives, the impacts of a supply chain disruption rest heavily on internal stakeholders, as are the strategies to mitigate the disruption.

Harjoto et al. (2022) defined shareholders and customers as residual claimants and categorized employees and the environment as fixed claimants within the internal stakeholder ecology. The understanding is that employees are the first to enjoy an organization's successes, whereas customers and shareholders receive the product of employees' labor. Without internal stakeholders' active response to supply chain disruptions, the probability of an organization incurring massive economic loss is high. Theme 1 (engage employees, develop customer interest, and manage supplier strategy) confirms stakeholder theory as a strategic management tool to mitigate supply chain disruption (see Figure 2).

Figure 2*Schematic Representation of Themes and Theoretical Contributions*

Note. The diagram depicts the theoretical contributions observed from the three developed themes. Themes 1 and 2 confirm stakeholder theory as a viable strategic management approach in mitigating supply chain disruptions. Theme 3 portrays adverse stakeholders' behavior that was not part of stakeholder theory, as Freeman (1984) submitted. Theme 3 extends the stakeholder theory into the arena of social marketing.

Theme 2: Encourage Interfirm and Institutional Collaboration

P1a, P1b, P2a, and P2b agreed that in a system where checks and balances bring sanity, ensure performance, and prevent financial loss, business leaders must pay equal attention to all parties for the system to operate efficiently. P1a, P1b, P2a, and P2b

supported the need for external monitoring and control of manufacturing activities. P1b was critical of social media bloggers and said, “I do not think these social media people are honest. They take advantage of the truth and make money by making unnecessary noise out of trivial issues.” However, numerous researchers have noted the power of social media in disciplining organizations (Appel et al., 2021; Nafees et al., 2021; Parthasara & Kumari, 2021). X. Wang et al. (2021) introduced the term “social media firestorm” to warn supply chain actors about the growing strength of social media. Addressing community demands and collaboration with external forces are critical strategies business leaders use to mitigate business disruptions.

Response to Community Demands. The communities within which an organization operates may not be directly involved in the daily activities of the firms, but their action has dire consequences on the financial performance. P1a and P1b agreed that the community’s anger could be tantamount to a customer’s disapproval of a supply chain value proposition. P2a explained that if supply chain actors fail to address a community’s complaints, it could create a bad reputation for them, and the results would lead to disloyalty. P2a and P2b agreed that management must listen, consider, and address community concerns. P2b stated,

Concerning deforestation, we are now collaborating with communities, and they have agreed to supply us with the wood to fire the clay. Now, we have a stockpile of material inputs for 6 months of work. People in the communities are happy because we have allowed them to make income while addressing environmental concerns.

P1b noted that poor communication was the cause of most problems associated with organization-community relationships. P2a and P2b disclosed that effective communication could create transparency and allow community leaders to understand a little of the management burden. The assertion made by P1b, P2a, and P2b affirmed the research study's findings by Can Saglam et al. (2022), which indicated that communication quality is one of the antecedents of supply chain resilience. P2a stated, “Meanwhile, we were hardly performing above breaking even, but due to poor communication, employees and the community leaders had no idea what was going on.”

Business perceptions raised by P1a and P1b indicated that poor communication could breed animosity, wrong perception, and emotional instability. The opposite side to the research finding by Can Saglam et al. (2022) indicates that poor communication and information sharing do not engender supply chain resilience. P1b stated,

Formerly, community leaders perceived the company as uncaring about their problems. In one meeting, an employee cited philanthropic activities by other organizations and questioned why we have not been helping the needy in the community. Little did management know that the employee was sharing the complaints and anger developing in the community.

P3a and P3b noted that addressing the communities' demands must involve delivering on corporate social responsibilities, highlighting philanthropic activities, and depicting instances of management's good intentions. P3a and P3b responses confirmed the research findings by Guo and Li (2023) and H. Li et al. (2022) which suggested that management's philanthropic activities through corporate social responsibilities, cause-

related marketing, and scholarships for needy students create a lasting good reputation for an organization. P1a understood that an organization's prior good reputation within a geographical location or on the global scene would serve as a defensive mechanism during a disruption. P1a shared this concept of corporate good intentions:

We do not operate in isolation, but we understand the impacts of our operation on the communities. This year, we gave 50 pairs of sandals to students with financial challenges in the communities. Again, we provided scholarships to twenty brilliant but needed students. These philanthropic gestures influenced our reputations in the surrounding communities.

There were records of philanthropic activities, corporate social responsibilities, and instances of cause-related marketing. One record stated, "The company shall give scholarships to two hundred students, estimated to cost 1.2 million Ghana Cedis over the next 3 years." Another record read, "The cause-related marketing undertaken last year cost the company 500,000 Ghana Cedis."

P3a and P3b agreed on corporate social responsibility's influence on the relationship between the organization and the community. P3a stated, "We could not believe the joy and appreciation expressed by the community leaders after the cause-related marketing episode. It was as if the community leaders instructed all employees to be faithful; the behavior change was impressive."

P3b stated, "The community demand for a share in the organization's profit may sound illegitimate, but a deeper consideration of the matter would reveal an underlying win-win situation." Addressing community demands is indirectly a business activity

because it is a supply chain mitigating strategy and prevents monetary loss. As shown in Table 2, addressing community demands is a strategy business leaders employ to create a resilient supply chain. Addressing community demands confirms stakeholder theory as a strategic management approach to mitigating supply chain disruptions.

Collaboration. P2a and P2b strongly emphasized collaboration with various firms. P2a stated,

At the time, our organization was behind in product innovation, and management decided to form the first alliance with another organization with advanced technology. We knew our customer volume was shrinking, and management again consulted with a marketing company to research for us.

P2a and P2b confirmed the research finding posited by Kuffner et al. (2022). According to Kufner et al. (2022), achieving supply chain resilience as a mitigating strategy is possible through the interplay among relationships, technology, and organizational structure.

P3b could not hide the significance and influence of a non-governmental organization that visited them 2 years ago. P3b stated, “At that moment, we had no choice but to consult with the non-governmental organization to help us restore workers' confidence.” P3b statement is in line with Salam and Khan (2020) suggestion that collaboration among government agencies in the event of an earthquake could save lives. The research findings by Kuffner et al. (2022) and Salam and Khan (2020) indicate the need for collaboration and healthy relationships between the supply chain and external market forces. Four out of six participants (67%) interviewed related their supply chain

mitigating successes to various kinds of collaborations. P3a stated, "The authorities usually do not have a problem with us as we pay our taxes, honor environmental regulations, ensure the safety of employees, and maintain a safe working environment."

At this time, the partner organization P3 showed me evidence of tax returns from the past 5 years. Evidence of nonconformance and corrective measures to manufacturing regulations was available. During my visit, an accountant returned from the Department of Manufacturing Companies office to present the progress in implementing corrective measures.

P3a and P3b noted that the essence of collaboration with external forces extends to government and non-governmental institutions, the media, and other interested groups operating outside the organization. On the benefits of collaborations, P3b smiled and disclosed: "Our collaboration with government and non-governmental institutions reduced the cost of raw materials, increased the volume of the raw material stockpile, and helped prevent financial loss." In support of P3b, P3a stated, "Alternatively, during the rainfall seasons, we sometimes contact a governmental institution to help us with raw material acquisition."

P1a and P1b disclosed that the various media worldwide never conceal an act of human rights abuse, product recall, or employee mistreatment. Such news, if they favor an organization, heightens the good relationship with the immediate community and the global audience. P1b stated,

Furthermore, the difficulties of this organization, which received attention from numerous media, caught the attention of many organizations. After a while, some

organizations sent personnel to learn from our experiences, and others came to research on us. We even had a visit from the Minister of Entrepreneurship and Rural Integration, who wished us well.

At the reception of the partner organization P1, I observed a group picture taken with the minister of entrepreneurship and rural development. I found a memo on the notice board depicting evidence of supply chain resilience reported for 2023. Other documents disclosed the support of friends, family members, and financial institutions as management struggled to restore normal operations after a disruption.

Participants P3a and P3b stated that they had contacted the government agency responsible for research into building materials. P3a stated, “A research institution assisted our operations with research into raw material processing and acquisition.” P3b said, “A government institution helps us manage cost and quality in their research program. In addition, we reduce our burden of acquiring raw materials by consulting with private people linked to the chief of a traditional area.” I found evidence of this alliance with a research institution in a contract signed between the two parties.

P2a admitted, “Building healthy relationships and meaningful collaborations depends on management’s social skills and social capital. Luckily, the CEO is a humble man who knows how to connect with all sorts of people.” The ability to effectively interact with people through social contacts and institutional ties is a critical success factor in any business ecology (Markman & Baron, 2003). A document from partner organization P1 revealed instances of corporation and alliance formation with various organizations. Collaboration between an organization and all interested groups creates

opportunities that an enterprise would lose otherwise. P1a stated, "At one time, we contacted the principals of high schools and introduced various products. Few principals agreed, but the majority rejected us. That was a significant step toward bigger productivity and market expansion."

P1b added that "collaboration through communication enhanced employees' commitment and customer loyalty. The yearly intradepartmental competition created a collaborative environment and helped us avoid internal conflicts." P1b continued by stating that "one of the benefits of collaboration I experienced is my willingness to participate in any event involving innovative practices." Lochan et al. (2021) highlighted this idea of freedom of association and suggested that collaboration could lead to participatory leadership, allowing employees to share their views. P1a smiled and confirmed, "Most of our successful products were designed by employees during one of our interdepartmental competitions."

Another ramification of interfirm collaboration indicated by P2b is co-creation, whereby business leaders seek customer participation to develop products that meet their expectations. P2b stated,

When a customer says the machine is inferior, you can be sure he/she is right. If a customer says the safety gadgets are not good, we listen and develop superior ones. We ensure customers feel they are a significant part of the organization by responding to their call for change.

P1a, P1b, and P3b converged in the understanding that electrical energy provides power to machines, instruments, and equipment to function at the expected level of

performance. P1b expanded on his perspective and said, “In the absence of reliable and sustainable energy sources, manufacturing firms might cease operations.” P1a and P1b agreed that collaboration includes the development of dependable, stable, and sustainable energy sources. P1a stated, “Unstable energy source has been another disruption to our operation. Unannounced and incessant power cuts have destroyed machines, leading to missed contract dates, increased customer anger, and low productivity.”

P2b boldly said that the energy generation cost is enormous, and organizations depend on the central government to take responsibility for it. P2b admitted:

You know the modern furniture business has machines and electrical gadgets.

This makes our operations dependent on electrical power from the national grid.

We depend 100% on the government for our energy needs.”

Receipt of electrical power payment from partner organization P2 indicated that the company depends on the national power supply for a significant part of its energy needs. The financial performance trend, as recorded in the books, was related to the availability of energy supply. Regarding efforts to mitigate the threats stemming from power cuts, P1b stated,

Recently, management announced the acquisition of a backup generator as a standby power station just in case we lost power from the national grid. Also, we have installed solar panels over the office building to protect the IT and management files.

Participants' narrations revealed that the benefits of collaboration extend to customer engagement and supplier management, apart from the influence on internal

processes. Table 2 includes collaboration as a contribution to developing supply chain mitigating strategies. Collaboration between business leaders and employees, customers, and suppliers confirms that stakeholder theory influences strategic management practice, confirming that Theme 2 supports stakeholder theory, as indicated in Figure 2.

Connection to the Conceptual Framework

The concept underlying stakeholder theory recognizes that the organization belongs to shareholders and stakeholders. Once organizational actors recognize individuals and groups in and outside the organization as potential partners, they will include and consider their welfare and contributions as part of the vision. The contributions of entities outside the organization to developing supply chain mitigating strategies are significant. Sajjad et al. (2020) discussed the relationship between the organization and external stakeholders in the integrative logic of stakeholder theory. According to the integrative logic, business leaders need to address the concerns of all interested groups affected by supply chain disruptions. Addressing external concerns could mean collaboration, cooperation, effective communication, and information sharing to mitigate supply chain disruptions. The precautionary measure is that business leaders must avoid using external stakeholders as a tool (instrumental logic) to accomplish an objective because the consequences could be devastating in the contemporary social media era.

Connection to the Literature Review

The findings observed from this research study indicated that members of the communities in which supply chains operate, the media, government institutions, and

non-governmental organizations function as the overseers of the activities of supply chains. Barros et al. (2021) disclosed that external stakeholders include government institutions, non-governmental organizations, activists, advocacy groups, communities, and the media. External stakeholders often reveal employee maltreatment, poor working and safety conditions, inferior products, and poor management attitudes (Hajmohammad et al., 2021).

With little or no management influence, these non-market stakeholders can question management actions without fear of reproach. Events such as social media backlash and social movements warn supply chain actors to mitigate disruption quickly and efficiently (Delgado-Ballester et al., 2023; Hancock et al., 2023). Theme 2 of this study, “Encourage interfirm and institutional collaboration,” established the significance of external stakeholders as strategic partners that motivate business leaders to mitigate supply chain disruptions. Theme 2 confirmed stakeholder theory as a strategic management tool for solving organizational problems such as supply chain disruptions.

Theme 3: Address Adverse Behavior Among Stakeholders Strategy

The responses obtained from P2a and P2b indicated that expressing behavior against the accepted moral norms in every culture is socially objectionable. All six participants reported incidents of unethical behavior by employees and customers, but each participant differed in how they dealt with such characters. P2a stated, “Humans, as social beings, survive adversities by learning and taking encouragement from peers and people outside the immediate environment.” The opinion shared by P2a directly agrees with Myers (2021) concerning the elements of vicarious learning. The fact that a

significant group of people reject unethical behavior does not defeat the understanding that people exhibit good and bad characteristics.

Exploring deontic justice theory, Kai et al. (2021) accepted the possibility or the existence of unethical or adverse behavior within a system. During the data collection, participants P1a and P1b referred to theft as a supply chain disruption. Theft, being unethical behavior, may cause immense economic loss to victim organizations or supply chains. P1b stated,

The first disruption we faced as an organization was theft. About 14 months ago, a band of thieves raided the company. The thieves emptied the warehouse, and many machines were taken. It was an unusual stealing episode, and we were not so surprised because of prior occurrences.

P1a confirmed the statement by P1b and said, “In this instance, theft resulted from community anger against perceived management's uncaring attitude towards employees and the surrounding communities. Little did management know that the employee was sharing the complaints and anger developing in the community.” Invariably, theft, anger, frustration, and leadership inexperience are four unethical behaviors expressed by P1b.

Documents received from partner organization P1 confirmed that various incidents of theft caused enormous damage to the organization's financial status. One document with an attached editorial from a newspaper recounted an unusual bank theft that nearly broke the organization's existence. The document revealed that dishonesty, leadership inexperience, employees' frustrations, and community anger were 90% of the causes that motivated the theft event. The newspaper editorial stated:

Our monies are not safe with the banks. This stealing of the company's money is a disgrace to financial institutions. The police must investigate this stealing of customers' money and imprison those found culpable.

P1b agreed with employees about incidents of occupational hazards, the absence of personal protective equipment, and the paucity of management safety awareness. P1b stated,

In another episode, one worker sat behind the processing department doing nothing. Peers reported the employee to management. When asked why he was sitting there, the employee complained about poor safety gadgets and the fact that he was inhaling too much wood dust.

Whether the employee's behavior was an act of laziness, work-related stress, frustration, or the expression of anger, the fact remains that each disruption called for management action to make amends. P1b noted, "Employees had no joy coming to work, and these sentiments were shared in the surrounding communities." P2a reiterated the story shared by P1b to the effect that unaddressed unethical or adverse behavior in an organization could disturb supply chain performance.

The line of thought and facial expression exhibited by P1a and P1b indicated a compromising stance for employees who express unethical behavior. P1b insisted: "In correcting employees' discouraging behavior, business leaders must see unethical behavior as a motivator to mitigate supply chain disruption." In contrast, P2a was angry against employees' adverse behavior and said they were anti-progress. P2a stated,

You realize this firm's downfall was management failure and employees' response to management ineptitude. Management always facilitates the process, but employees' actions and inactions are destructive. Business leaders should not tolerate such unwelcome behavior.

As suggested in the tenets of deontic justice theory, business leaders must reject and punish employees' unethical behavior (Sam, 2021; Zeng et al., 2021). P1a, P1b, P3a, and P3b opposed the research findings by Sam (2021) and Zeng et al. (2021) and suggested employee acceptance, rehabilitation, and restoration. P1b observed the following:

Honestly, he was right. During those days, the company struggled in many areas, and our accounting books were very discouraging. Instances of poor-quality products led to excessive customer complaints. Employees' morals were down, and job satisfaction was at its lowest.

The narrative shared by P1b indicated that business leaders must blame themselves when employees express adverse behavior. P1b explained that leaders must accept and address employees' adverse behavior, considering them due to management inefficiencies. P1b stated,

I must admit that our leader or chief executive officer and company owner needed more management experience. He had to struggle through changes and learn management lessons the hard way. Fortunately, our CEO is a humble man. He knew his limitations and worked hard to overcome them.

P3a tried to explain why leaders must accept and address stakeholders' adverse behavior and said,

If supervisors understand the need to contain customers' anger, they must also learn to embrace employees' unethical behavior. When a supplier blatantly disrespects the contract, leaders find room in their hearts to forgive them. In contrast, leaders will disown employees for adverse behavior, as if they belong to a different world. This is an unfair leadership action.

P3a was honest and transparent when discussing the consequences of employees' adverse behavior. P3a noted the following:

Apart from the unskilled labor force, employees' absenteeism, lackadaisical attitude, and strike action disrupted our effort to serve customers. We need employees to manage the production process; their absence or strike action creates a vacuum on the production line.

P3b revealed: "As theft, community anger, employees' anger, absenteeism, strike action, and unskilled labor ravaged the organization, management finally found a way to appease employees and leaders of the community. P3b stated, "The stealing event became the turning point for the organization. After a series of meetings with the heads of the community, most stolen items were returned, and that was the beginning of a meaningful and healthy community-organization relationship."

As organizational actors struggle to find solutions to the myriad of problems confronting them, researchers suggested solving all issues simultaneously (Han & Lee, 2021) with the best intentions. P3a and P3b agreed that business leaders must address

employees' problems and work with community leaders to settle relationship-destroying issues. P3a stated, "My point is that we have a wide range of stakeholders, and the success of our operations depends on serving all groups effectively."

The need to stabilize the organization-customer-employee-supplier equilibrium to ensure performance is crucial and must include tolerance for adverse behavior in the supply chain. A closer look at Figure 2 revealed that Theme 3 (addressing adverse behavior among stakeholders) is the smallest of the three triangles, indicating a less popular opinion among participants but within the framework of stakeholder theory. Theme 3 does not disconfirm but extends stakeholder theory to include adverse or unethical behavior as a source of motivation for supply chain actors to mitigate disruptions. The power of Theme 3 to change the business landscape is its alignment with human values. In this instance, human values include mature love, social recognition, a sense of accomplishment, true friendship, a comfortable life, a beautiful world, family security, and national security. Theme 3 transitioned supply chain activities from business-profit-centered to business-moral obligations-profit-centered.

Connection to the Conceptual Framework

Any unethical or adverse behavior that occurred in an organization or supply chain has been the work of an internal or external stakeholder. The "address adverse behavior among stakeholders" strategy indicates that business leaders must address employee anger, community complaints, and customer frustration by engaging in a concept that serves all parties. In the event of a supply chain disruption, Nonet et al. (2022) advised business leaders to settle all related but conflicting situations

simultaneously through the integrative logic of stakeholder theory. Addressing stakeholders' adverse behavior involves applying the integrative logic of stakeholder theory; however, depending on the problem at hand, instrumental and normative logic may be effective in certain unethical situations.

Connection to the Literature Review

As Freeman and Reed (1983) and Freeman (1984) posited, one of the assumptions of the stakeholder theory is that stakeholders would always act ethically and respond dutifully to management requests. In the stakeholder theory (Freeman, 1984), customers, suppliers, and employees are obedient and respectful entities who would act ethically to avoid peers' moral anger, as suggested by Folger (2001) in the deontic justice theory. However, any generic theory must embrace all human attributes, both moral and unethical behavior being part of the genetic makeup. This implies that as a generic strategic management theory, stakeholder theory failed to include unethical or adverse behavior among stakeholders.

The doctoral research findings indicated that stakeholders' unethical or adverse behavior could successfully motivate business leaders to mitigate supply chain disruptions. According to Kai et al. (2021) and Zeng et al. (2021), the good, the bad, and the ugly form part of the social ecology with genuine and legitimate needs. Um and Han (2020) expanded the understanding of the call "to do what is right" by addressing adverse behavior resulting from management failure. The potential to include the concerns of all interested groups makes the integrative logic of stakeholder theory versatile in the application. As a supply chain mitigating strategy, business leaders must exhibit love-for-

all to do what is right, including those whose actions plunge the organization's performance.

The stakeholder theory failed to consider unethical behavior by stakeholders, though the purview of integrative logic includes both good and adverse stakeholder behavior. The normative and instrumental logic of stakeholder theory could serve different purposes in addressing stakeholders' unethical behavior to prevent supply chain pecuniary loss. Table 2 depicts the significance of Theme 3, and Figure 2 describes the theoretical contribution of Theme 3. Theme 3, addressing adverse behavior among stakeholders, does not disconfirm but extends the stakeholder theory as a strategic management practice to mitigate supply chain disruptions successfully.

Applications to Professional Practice

According to the system risk theory (Colon & Hochrainer-Stigler, 2023; Ray, 2010) and normal accident theory (Perrow, 1999), disruptions are inherent in organizations, and the only way out for business leaders is to mitigate them. A mitigating strategy is crucial to avoid economic loss after a disruption; the aim is to ensure the continuous flow of products and services to customers. Following the institutionalization of the customer-centric marketing era (Kotler et al., 2019), the idea of a stakeholder approach to solving the organization's myriad of problems emerged (Freeman & Reed, 1983; Freeman, 1984) as the concept received strategic management support. In this research study, I found three strategies business leaders in southern Ghana use to mitigate supply chain disruptions. The three strategies are: (a) engage employees, develop

customers, and manage suppliers; (b) encourage interfirm and institutional collaboration; and (c) address unethical behavior among stakeholders.

Engagement of Employees, Development of Customers, and Management of Supplier Strategy

Management researchers of the customer-centric and values-centric eras of marketing (Kotler et al., 2019) placed the customers at the center of the organization. With booming alternate products for customers to purchase, rival organizations fought for market share. Customers can choose which product to buy, which leads to intense competition for a whole or part of consumers' purses. In the contemporary era, the performance of an organization relates to the volume and quality of customers. The implication for business practice is that business leaders and marketing managers need to learn the art of catching customers' attention through various media.

Developing a vast customer base for a given supply chain becomes necessary only if employees are skillful enough to present quality products and brilliant packaging to the market. Employees' commitment and innovative skills may result from management recognition of their efforts coupled with respect and meaningful rewards. Management's attention to employee safety and welfare is critical because it portrays management's good intention as attracting the best out of employees. The human need for recognition and acceptance is inherent in the value system and could be used as a strategic tool to seek the better side of an individual. The implication for business practice is that business leaders must purposefully recognize employees' efforts to encourage them to support the mitigation strategies.

The significance of suppliers to the supply chain lies in the efficiency level in honoring their contracts. Manufacturers could create sustainable raw material stockpiles if suppliers (or multiple suppliers) deliver the material inputs as promised. Logistics issues can cause organizations immense financial loss if the goods are delayed on the road because of disruptive occurrences. Managing suppliers is critical to avoiding pecuniary loss during a disruption. The implication for business practices is that business leaders must be aware of the circumstances that could disrupt the activities of suppliers. Business leaders need to create resilient platforms such as multiple suppliers, backup suppliers, material stockpiles, and inventory updates to reduce pecuniary loss in a disruption.

Encouragement of Interfirm and Institutional Collaboration

The devastating results of the COVID-19 pandemic discouraged economic figures worldwide. The cost of production increased, the cost of manufactured products and services soared, and the purchasing power of stakeholders plunged during COVID-19 because of increasing inflation and other factors (Gashi et al. (2021). In the turbulent market and uncertain economic era, organizations could reduce the cost of operations and maintain the expected profit margin if they collaborate with partner organizations. Organizations must collaborate in research by seeking assistance from government and non-governmental institutions to reduce the cost of production and enhance innovative practices.

The expectation is that each successful firm has a unique value proposition. The unique value proposition of an organization relates to its core competence. Sharing one's

core competence could be difficult, but a win-win business deal should engender motivation in an environment of collaboration and mutual benefit. In this instance of collaboration-to-share partnership, supply chain actors would expand market share, improve the quality of existing products, introduce new products, and increase the profit portfolio.

The implications for business practice include business leaders' awareness of the benefits of collaboration and the market value of tolerance. As a business practice, business leaders must understand that loneliness breeds performance challenges, tolerance creates lasting relationships, and collaboration uplifts the weakest member of the supply chain network. The idea behind interfirm and institutional collaboration is to ensure that no organization bears the burden of a disrupted system alone.

Addressing Adverse Behavior Among Stakeholders Strategy

The doctoral research findings indicated that the “address unethical behavior among stakeholders” strategy added to the scope and extended the purview of stakeholder theory. The foundational basis of stakeholder theory is that both internal and external market forces would respond positively to the management call (Sajjad et al., 2020). As business leaders strategize to create better relationships with employees, customers, and suppliers, the hope is that stakeholders will act ethically in their response.

Before the emergence of the customer-centric marketing era, during which stakeholder influence emerged, management deployed activities in the interest of shareholders (Freeman, 1984). During the product-centric marketing era, business leaders did not recognize employees' contributions, customers had little respect, and they treated

suppliers as second-class citizens (Kotler et al., 2019). The all-size-fits-all business environment created a general animosity against management. The insurgence of unethical behavior soared and spread across organizations, increasing business leaders' burden in mitigating the disruptions that followed.

The research findings in this study suggest that business leaders must accept incidents of unethical behavior resulting from management ineptitude. The threat of punishment does little to improve the manager-employee, organization-customer, and the organization-suppliers relationship. Management must accept and address unethical behavior, rethink the causes, and work towards repairing broken relationships. The implication for business practice lies in business leaders' capacity to restore broken relationships with employees, customers, and suppliers. The overarching business objective is to create committed employees, loyal customers, and resolute suppliers.

Implications for Social Change

The implications for social change are that business leaders may find the results of this study helpful in practicing all-inclusive leadership and collaboration. The idea behind participatory leadership (Lochan et al., 2021) in the supply chain is to sustain the organization's existence to improve people's lives. According to the findings in this study, a mature leader-member exchange (van Dum & Wilderom, 2021) must include committed employees, lazy employees, loyal customers, disrespectful customers, efficient suppliers, and unruly suppliers. The findings indicate that business leaders' capacity to turn stakeholder unethical behavior into assets may boost their self-worth, enhance mental welfare, and strengthen their confidence.

The research findings also indicate that business leaders collaborating effectively with governmental organizations, non-governmental institutions, and other interested groups can serve the organization, communities, and societies more effectively. Gutman (1982) posited the means-end theory to describe the potential of an organization's products to change behavior. Business leaders who successfully mitigate supply chain disruptions influence the lives of individuals, communities, and people worldwide through social and behavioral change.

Recommendations for Action

Business leaders may use the research findings to evaluate their capacity to develop supply chain mitigating strategies. The human values concept embedded in the research findings makes it universal and applicable to various human endeavors, including home management, organizations, multinational corporations, and educational institutions. Management's need for social recognition is the same as the customer's need for social recognition, and both must use the research findings to mitigate disruptions as supply chain stakeholders. In an environment of inequality, racism, injustice, and poverty, the need for business leaders to sustain the supply chain's activities is paramount. The research findings indicate that the need for equality, national security, a comfortable life, and related terminal values (Rokeach, 1973) should motivate business leaders, governmental institutions, and other interested groups to collaborate to mitigate supply chain disruptions.

Theme 3 of the research findings implies that business leaders can turn adverse behavior or situations to the organization's or supply chain's advantage. The requirement

in Theme 3 is that business leaders must be broadminded, imaginative, and intelligent to embrace stakeholders' unethical behavior. Business leaders, government officials, and private institutions must apply the research findings to achieve self-respect, social recognition, good reputation, and financial performance as they mitigate disruptive events.

I suggest business leaders consider the following recommendations on embracing good and unethical stakeholder practices as they strategize to mitigate supply chain disruptions. Government, non-governmental institutions, and social enterprises may apply these recommendations or steps (in no particular order) to change behavior and develop highly performing institutions. The recommendations could be helpful to marketing managers as they seek to introduce more innovative products and expand their market share. Recommendations concerning employees are to

- Ensure that all employees enjoy equal treatment. Various positions must not separate employees.
- Respect employees for what they do, and do not take anyone for granted.
- Recognize employees' contributions and thank them for their efforts.
- Good behavior is welcome, but do not be too surprised when an employee expresses adverse behavior; it is all humanistic.
- Ensure the leader's actions support employees' welfare and safety; employees must have confidence in the leader.
- Accept management weaknesses when revealed by stakeholders because humans are irrational and can easily make mistakes.

- Quickly take measures to correct all nonconformances and let employees know you care for them.
- Management good intentions can be a powerful tool and have the potential to change unruly behavior or adverse intentions. In the absence of a leader, employees must have the heart to defend them.

Recommendations concerning customers are to

- Understand that customers have little interaction with members upstream of the supply chain. Beware of how you communicate with them; they may not understand your intentions.
- Customer anger is not a strange thing. Treat them well and address their problems with smiles; they will thank you later.
- In the contemporary era of social media, customers and other stakeholders have power. Increase cultural awareness and ensure deep emotional intelligence.
- Accept that products have the power to change behavior. Increase product quality and innovation. Personalize products to satisfy customers' unmet needs.
- The need for social recognition, self-respect, and equality are three of the human values posited by Rokeach (1973). Use the three values for customers, and they will smile before leaving the counter.
- Remember that all employees are customers, and all customers are consumers; the three interact mutually as carriers of the organization's value propositions

and reputation. Treat them well as ambassadors of the organization or supply chain.

Recommendations concerning suppliers are to

- Note that suppliers have several problems; a little support and understanding will help them achieve their daily objectives.
- Understand that consumers are money suppliers, whereas others supply raw material inputs, intermediary products, and finished products. Make everyone feel valuable because the supply chain loop is circular.
- Expect suppliers to fail sometimes. Engage multiple or backup suppliers to fill a gap.
- Suppliers, as human beings, could display unethical behavior. Ensure necessary controls are in place to correct unwelcome circumstances.
- Love is powerful, and good intentions soften the heart. Life is short and can be excruciating. A little support can make an enormous difference.

Considering the significance of the research findings to the human value system, it will benefit the business communities, social organizations, governmental institutions, agricultural environment, and the scientific world to uphold the research findings in high esteem. Authors must disseminate the findings in their books, and teachers must explain the concept to their students. In a conference where organizers seek supply chain sustainability and resilience, speakers must spread the core ideas in this research. Training modules for business leaders should include the “address adverse behavior among stakeholders” strategy as an extension of stakeholder theory.

Recommendations for Further Research

I explored strategies business leaders of manufacturing enterprises in southern Ghana use to mitigate supply chain disruptions. From the purpose statement, I limited the research findings to manufacturing enterprises. To confirm the transferability of the research findings, I recommend that future researchers include other business firms at various locations in the research design.

Secondly, the purpose of this study revealed that the researcher collected data from manufacturing firms in southern Ghana. The emphasis on southern Ghana limits the scope of this research study to a given location. Ghana is a small country, and I recommend that future researchers expand the research focus area to determine the level of confirmability and ensure a broader application of the findings.

Thirdly, the trustworthiness or believability of research findings lies in the transferability and the ease of replicability (Blom & Niemann, 2022). In this research study, I collected data from business leaders of southern Ghana manufacturing firms with unique cultural values and a defined business mindset. I recommend that future researchers test the transferability and replicability of the research findings in other regions of Ghana or other countries. Proof of transferability and replicability could imply intra- and interfirm collaboration and the need to address stakeholders' unethical behavior as part of the strategies to mitigate supply chain disruption.

Table 3 includes participant demographics. As shown in the table, the data collected for the study were from male business leaders. I cannot confirm if female business leaders would have different strategies to mitigate supply chain disruptions.

Table 3*Participant Demographics*

Participant	Gender	Age (years)	Years of experience	Marital status
P1a	Male	43	11	Single
P1b	Male	39	10	Married
P2a	Male	48	9	Married
P2b	Male	45	12	Single
P3a	Male	50	20	Married
P3b	Male	46	13	Married

Note. P1a and P1b were the first and second participants interviewed from Partner Organization P1. Labeling P2a and P2b (Partner Organization P2) and P3a and P3b (Partner Organization 3) also reflects the order in which the researcher interviewed participants.

I recommend that future researchers purposely include only females or a mix of male and female business leaders to determine the strategies that will emerge after thematic analysis. Female supervisors or managers might lead the business community to adopt a new theory or approach to strategic management.

Reflections

I had to take several breaks during the doctoral journey because of financial difficulties. One painful step after another, one difficult moment after another, I delivered my assignments under strict timelines to proceed upward in the doctoral journey. I might have stayed too long in the doctoral completion stage, but every delay was a learning point. Various professors' comments sharpened my analysis of every situation; I had to learn not to take anything or anyone for granted.

Dosed with academic and character discipline, I approach the data collection stage of the doctoral journey with detailed precautionary measures. I might have been too cautious with participants, which could have made some participants feel uneasy in their responses. Again, a few participants had difficulty with English, and their pronunciations of certain words sounded so funny that it made me feel unduly patronizing. This unhealthy situation could have influenced participants' responses as they realized my reactions to their limitations.

Naturally, I am a person who questions every situation and event that crosses my path, but my doctoral study "chair" has a unique way of instructing me to follow laid down rules. I observed that my chair uses a motherly strategy that was highly effective on me. I imitated my chair's motherly strategy and used it effectively on participants before (developed rapport), during (interviewing), and after (member validation process) the face-to-face interviews. All three partner organizations and six participants agreed to participate in the doctoral study because they wanted to please me.

The doctoral study journey has made me a better person in every conceivable way. As a Christian, my understanding of the Holy Bible has improved, and I have little difficulty forgiving those who have hurt me. As a future Doctor of Business Administration, the research findings advised me to accept anyone who comes my way and lead them to a better future. A future that demands all people to collaborate in fulfilling the 17 SDGs of the United Nations is the way forward (Brault et al., 2020). The world needs a future of peace marked by significant innovations, high-performing organizations, and effective leadership. Nature has plagued humanity with many

difficulties; the wealthy, the economically challenged, and people of all races need help to have a meaningful life.

Conclusion

The 2030 United Nations Agenda of Transforming Our World deployed 17 SDGs centered around people, the planet, prosperity, peace, and partnership. The burden of fulfilling the seventeen goals is enormous, and it requires people to collaborate as they strategize in a peaceful environment to create a prosperous life for all. The onus lies with institutions and organizations to engage unskilled and skillful labor, as the requirement rests on humanity to exercise their gifts and talent to serve society.

One of the objectives of this research is to learn from successful business leaders how they strategize to sustain the organization after a disruption. The themes developed in this research study indicate that supply chain financial performance hinges on sustainability, innovation, collaboration, forgiveness, and participatory leadership. The human values involved in this exercise include broadmindedness, intelligence, imagination, self-control, responsibility, social recognition, and honesty. Business leaders and policymakers should leave no person out when strategizing to create, sustain, and expand the supply chain's activities.

One significant outcome of this research is the “address adverse behavior among stakeholders” strategy that disagrees with business leaders who sack employees for unethical behavior. The research theme suggests that an unruly employee could be as productive as a preferred one if managed effectively. The understanding is that stakeholders' adverse behavior is rooted in management inefficiencies and that

management's good intentions and actions could engender a good response from unruly stakeholders.

Stakeholders' adverse or unethical behavior could be annoying and destructive; the straightforward way out has always been to remove them from the system. According to the research outcomes, the new strategic management terms are acceptance, tolerance, restoration, reinduction, forgiveness, love, and all-inclusiveness. The idea is to find all means to create prosperity in a peaceful environment by mitigating supply chain disruptions and avoiding economic loss with all stakeholders.

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Appendix A: Interview Protocol

Action	Script
Introduce the interview and set the stage—often over a meal or coffee.	<p>"Hello, thank you for taking the time to participate in this research study. I appreciate the criticality you attach to the expected findings, and I hope to add to the literature that develops strategies to mitigate supply chain disruption. I have been working on the degree for Doctor of Business Administration emphasizing marketing for the past few years. In this study, I am exploring the strategies business leaders of manufacturing enterprises use to mitigate supply chain disruption."</p> <p>"As a courtesy, I received a BS in Chemistry from Ghana and an MSc in International Management from the University of Liverpool. I focused my doctoral study on salvaging the supply chain after a disruption. A disruption in the supply chain could threaten global hunger, family security, joblessness, and economic meltdown."</p> <p>"A few weeks ago, you agreed to sign an informed consent form. Do you have any questions for me or any matter that requires my attention? This interview is confidential, and your identity and that of your organization shall remain anonymous and represented by codes."</p> <p>"I will use a data collection technique called formative influence timeline. The idea is to allow you to note any events and memories that inform the status of your organization. You will tell your story the way you deem fit. During your narration, I may prompt you for further explanation and details."</p> <p>"I will need to record your responses so that I do not miss anything."</p> <p>"Note that you may rescind your decision to participate in the research anytime."</p>
FIT Technique. The researcher's instruction 1	<p>"Please assume that the line drawn on this paper is your organization's timeline. Identify any occurrences that you think shaped the current status of your organization."</p>
FIT Technique. The researcher's instruction 2	<p>"Please take 5 min to jot down these events and memories. You will use them as a guide to describe each occurrence."</p>

Action	Script
FIT Technique. The researcher's instruction 3	"Please provide a detailed description of each occurrence that influences the activities and performance of your organization. I may prompt you for further clarification or details."
FIT Technique. Ask follow-up probing questions to get more in-depth responses. Listen for nonverbal cues. Paraphrase as needed	<p>Questions to participants for details or context-dependent descriptions must include the proposed interview questions. It is critical to ensure that the data received involves answers to all approved interview questions.</p> <ol style="list-style-type: none"> 1. "What type of supply chain disruption have you faced over the last 5 years?" 2. "What business strategies do you use to successfully mitigate supply chain disruptions?" 3. "How do you decide which supply chain disruption mitigating strategies are successful?" 4. "In what ways do your employees influence your strategies to mitigate supply chain disruption?" 5. "How do your relationships with people and groups outside your organization influence your strategies to mitigate supply chain disruption?" 6. "What are the barriers to mitigating supply chain disruption?" 7. "How have you addressed these barriers?" 8. "What else do you wish to add about strategies you use to successfully mitigate supply chain disruptions?" 9. "What other information would you like to provide about your strategies to mitigate supply chain disruptions?"
Wrap up the interview by thanking participants.	"Your contribution to this doctoral research has been most impressive and I thank you very much for helping me to achieve the doctoral degree. I hope you will find the research findings beneficial to your organization."
Schedule transcript review either by phone or email.	"In a few days, I will need your assistance in authenticating my understanding of your responses to the interview questions as part of the research process. You may adjust the script or add to your initial responses if needed. I will send the transcript by email, and we can discuss it by phone if you agree."

Action	Script
Introduce a member checking review and set the stage.	"Thank you for agreeing to meet me today to finalize what I heard from you during the interview and the meaning I have provided for each response."
Share a copy of the succinct synthesis for each question.	"I am sharing a succinct synthesis of your responses to each question. Please provide feedback regarding the accuracy of the synthesis. Be as detailed as possible, I need all the factors and elements involved when you mitigate each business disruption."
Bring in probing questions related to other information that you may have found; note the information must be related so that you are probing and adhering to the IRB approval. Walk through each question, read the interpretation, and ask:	<ol style="list-style-type: none"> 1. "What type of supply chain disruption have you faced over the last 5 years?" [Synthesis] 2. "What business strategies do you use to successfully mitigate supply chain disruptions?" [Synthesis] 3. "How do you decide which supply chain disruption mitigating strategies are successful?" [Synthesis] 4. "In what ways do your employees influence your strategies to mitigate supply chain disruption?" [Synthesis] 5. "How do your relationships with people and groups outside your organization influence your strategies to mitigate supply chain disruption?" [Synthesis] 6. "What are the barriers to mitigating supply chain disruption?" [Synthesis] 7. "How have you addressed these barriers?" [Synthesis] 8. "What else do you wish to add about strategies you use to mitigate supply chain disruptions successfully?" [Synthesis]
Did I miss anything? Or what would you like to add?	9. "What other information would you like to provide about your strategies to mitigate supply chain disruptions?" [Synthesis]

Appendix B: Invitation Letter

Dear Sir,

There is a new study about supply chain mitigating strategies that could help business leaders better understand the benefits and challenges of allowing stakeholder involvement in strategic management of this nature. For this study, you are invited to describe your experiences about the strategies you used to mitigate supply chain disruptions.

About the study:

- One 60–95-minute face-to-face interview that will be audio recorded (no video recording)
- To protect your privacy, the published study will not share any names or details that identify you.

Volunteers must meet these requirements:

- Business leader.
- Has had more than 5 years of experience as a business leader, and has been in the current position before, during, and after a supply chain disruption.

This interview is part of the doctoral study for Aikins Brobbey, a doctoral student at Walden University. Interviews will take place during 10th to 15th June 2024.

Please reach out [telephone number redacted] to let the researcher know of your interest.

You are welcome to forward it to others who might be interested.

Yours Sincerely,

Aikins Brobbey

DBA student