

**UNIVERSITY OF EDUCATION, WINNEBA**

**THE ROLE OF CULTURAL DIVERSITY ON SUPPLY CHAIN PERFORMANCE OF  
MULTINATIONAL ORGANIZATIONS IN GHANA  
: A CASE STUDY OF NESTLE GHANA LIMITED**

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**MASTER OF BUSINESS ADMINISTRATION**

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OF MULTINATIONAL ORGANIZATIONS IN GHANA: A CASE STUDY OF  
NESTLE GHANA LIMITED**

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**A dissertation in the Department of Procurement  
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the requirements for the award of the degree of  
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in the University of Education, Winneba**

**JULY, 2025**

### **DECLARATION**

I, **Joseph Kwame Donani**, hereby declare that this thesis is the result of my original work towards my MBA and to the best of my knowledge, it neither contains material published by another person nor material which has been accepted for the award of any degree of the University, except where due acknowledgement has been made in the text.

**Signature:** .....

**Date:** .....

### **Supervisor's Declaration**

I hereby declare that the preparation and presentation of this work was supervised by me in accordance with the guidelines for supervision of thesis as laid down by the School of Graduate Studies, University of Education, Winneba.

**Name of Supervisor:** Dr. Mawuko Dza

**Signature:** .....

**Date:** .....

## **DEDICATION**

This thesis is dedicated, first and foremost, to the Almighty God, whose grace, protection, and guidance made this study possible. I also lovingly dedicate it to my parents for their unwavering support, sacrifices, and encouragement throughout my academic journey. Finally, I extend this dedication to my family and loved ones for their continuous inspiration and belief in my efforts.

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## LIST OF ABBREVIATIONS

<b>CQ</b>	Cultural Intelligence
<b>RBV</b>	Resource-Based View
<b>VRIN</b>	Valuable, Rare, Inimitable, Non-substitutable
<b>SCT</b>	Social Capital Theory
<b>SEM</b>	Structural Equation Modeling
<b>SPSS</b>	Statistical Package for the Social Sciences
<b>PLS / SmartPLS</b>	Partial Least Squares Structural Equation Modeling software
<b>FMCG</b>	Fast-Moving Consumer Goods
<b>ROI</b>	Return on Investment
<b>EFA</b>	Exploratory Factor Analysis
<b>VIF</b>	Variance Inflation Factor
<b>SCM</b>	Supply Chain Management
<b>SCP</b>	Supply Chain Performance
<b>IoT</b>	Internet of Things
<b>COVID-19</b>	Coronavirus Disease 2019

## **ABSTRACT**

Cultural diversity has become a fundamental aspect of multinational organisations' operation in today's globalized economy. As workplaces bring together individuals from different national, ethnic and linguistic backgrounds, cultural diversity presents both strategic opportunities and managerial challenges. Studies have shown that many organisations struggle to harness their full potential due to issues such as communication barriers, cultural conflicts, and ineffective diversity management practices. The study examines the role of cultural diversity in multinational organisations by exploring how it affects teamwork, leadership styles, employee performance, innovation, and organisational effectiveness. A quantitative research approach was used, involving a structured questionnaire to gather data from a multinational organisation in Ghana. Data was analysed using descriptive techniques. A major finding of the study indicates that cultural diversity enhances creativity, innovation and global competitiveness, but can hinder collaboration when there is insufficient inclusion or communication. The study proposes practical strategies such as diversity training, inclusive leadership, and organisational policies that promote inclusion and improve cross-cultural collaboration. The results provide multinational organisations with valuable insights into how cultural diversity can be transformed into a strategic asset for improved performance and sustainability.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background

Globalization has significantly reshaped the way multinational organizations operate, particularly in the area of supply chain management (SCM). Although supply chain strategies generally focus on efficiency, responsiveness, and cost-effectiveness, cultural factors play a vital role, yet they are often overlooked (Nguyen & Pham, 2023; Reynolds et al., 2024) in shaping how these practices are implemented across different countries and regions. In today's global era, multinational organizations function within highly dynamic and complex environments where effective supply chain management is crucial for maintaining a competitive edge. From logistics to procurement, both internal and external forces affect every aspect of supply chain. Much attention has not been given to one of the most powerful internal factors: the organizational culture, which significantly impacts how managerial decisions are made and operational processes. The increasing globalization of business operations has expanded the complexity of supply chain management especially for multinational organizations. As these firms expand their production, purchasing and distribution activities across international borders, they are confronted with challenges that are beyond technical and logistical issues. Among these challenges, cultural influence has emerged as one of the most significant factors affecting global supply chain operation. (Reynolds et al., 2024).

Multinational organizations are increasingly dependent on global supply chains involving diverse partners such as suppliers, manufacturers, logistics providers, and retailers, all working within different cultural contexts. Effective supply chain performance, therefore, cannot totally be actualized without understanding and aligning with cultural dynamics (Tambe & Clarke, 2021). For instance, the preference for hierarchical versus egalitarian relationships, risk

aversion, long-term versus short-term orientation, and individualism versus collectivism greatly influence supply chain collaboration and governance structures (House et al., 2020)

In recent years, especially following the disruptions caused by the COVID-19 pandemic, the role of culture in ensuring supply chain resilience and adaptability has become more relevant (Weingarten & Durach, 2020). While organizations have invested heavily in technologies such as supply chain digitization, artificial intelligence, and blockchain, the ability to adapt these tools successfully often hinges on cultural alignment between various supply chain actors (Kumar & Mishra, 2022). For example, high-context cultures (such as those in East Asia) tend to rely on implicit communication and long-term relationships, whereas low-context cultures such as in the United States and Germany, favour direct communication and formal contracts. Misalignment between these cultural expectations can lead to misunderstandings, delays, and even breakdowns in collaboration (Tran & Le, 2024).

Among the multiple frameworks, Hofstede's cultural dimensions, Trompenaars' cultural orientations, and Hall's context theory, this study primarily adopts Cultural Intelligence (CQ) and Hofstede's framework as guiding lenses, while noting that critiques of Hofstede's model continue to provide relevant lenses for understanding how national culture influences organizational behaviour in supply chains. Key cultural dimensions such as power distance, individualism versus collectivism, and uncertainty avoidance, impact how decisions are made and how authority and responsibility are distributed among supply chain partners (Nguyen & Pham, 2023). Empirical studies conducted in recent years emphasize that organizational culture and cultural intelligence (CQ) are critical for effective supply chain integration.

For instance, research in the petroleum sector in Ghana and the garment industry in Southeast Asia identified that cultures characterized by collectivism, long-term orientation, and trust significantly enhanced supplier collaboration and performance (Asare & Boateng, 2021; Phan et al., 2024).

Furthermore, the presence of culturally intelligent leadership has been connected to increased adaptability, conflict resolution, and overall supply chain efficiency in multinational environments (Ebrahim & Sharifi, 2020).

In contrast, cultures driven by short-term gains or weak regulatory enforcement, sustainability initiatives may face resistance or superficial compliance. Despite the growing recognition of these issues, many multinational companies still struggle to incorporate cultural considerations into their SCM frameworks. The approach to Supply Chain Management continues to emphasize quantitative metrics such as cost, speed, and efficiency, often overlooking the human and relational elements essential for success in cross-cultural contexts (Chen et al., 2023). This oversight has led to operational inefficiencies, strained partnerships, and missed opportunities for innovation and competitive advantage.

Given these realities, it is imperative to explore the role of culture more systematically within the domain of supply chain management. Understanding how cultural differences influence SCM practices, and identifying strategies for effectively navigating those differences, is essential for multinational organizations seeking resilience, agility, and sustained performance in the global marketplace. This study, therefore, contributes by investigating the role of culture particularly through Cultural Intelligence (CQ) in shaping supply chain practices, with a focus on Ghana, thereby addressing a gap in African context research, with the goal of identifying cultural enablers and barriers to effective global supply chain integration.

## **1.2 Statement of Problem**

In the globalized economy, Multinational organizations often adopt standardized supply chain practices to optimize performance. However, these standardized approaches may not be effective across diverse cultural contexts, leading to inefficiencies, misunderstandings, or even failures (Tran & Hoang, 2023). Numerous real-world cases have demonstrated that cultural misalignment can lead to severe disruptions. For example, Walmart's withdrawal from

Germany was partly attributed to cultural incompatibilities in management style, customer service expectations, and employee relations (Rothaermel, 2021). Similarly, attempts by Western firms to enforce lean supply practices in collectivist cultures like China or India often encounter resistance due to conflicting values and priorities (Singh & Prakash, 2023).

Moreover, the accelerated digitalization of supply chains has not eliminated cultural barriers. Instead, it has amplified them, as virtual teams spanning multiple time zones and cultural contexts now collaborate on critical supply chain functions. Without cultural sensitivity, such collaborations suffer from miscommunication, trust deficits, and coordination problems (Chen, Lin, & Tang, 2020). While cultural frameworks like Hofstede's and GLOBE are widely cited, there remains a practical gap in how organizations operationalize cultural insights within supply chain practices. Most supply chain professionals are trained in logistics and analytics but lack the cultural competencies necessary for successful global operations (Mensah & Akoto, 2025). Despite the growing recognition of culture's impact on organizational dynamics, there remains a gap in understanding how cultural factors specifically influence supply chain practices in multinational organizations. This gap hinders comprehensive insights into optimizing supply chain performance across diverse cultural contexts. Therefore, this thesis aims to explore the intricate relationship between cultural dimensions and supply chain practices to address this knowledge gap effectively.

### **1.3 Significance of Study**

This study is significant for several reasons. First, it contributes to the growing body of knowledge on global supply chain management by highlighting the role of culture, an often-overlooked factor, in shaping supply chain outcomes (Adebanjo & Tickle, 2020). Second, it provides practical insights for supply chain managers, policymakers, and consultants on how to manage cultural diversity to foster more resilient and responsive supply chains. For academia, the research bridges the gap between cross-cultural management and supply chain theory by

applying cultural models to real-world supply chain practices. It extends existing literature and offers new empirical evidence from multinational contexts, particularly relevant to emerging economies and global supply hubs. For practitioners, the findings offer a roadmap for incorporating cultural intelligence into supply chain training, strategy, and performance measurement. In an era where geopolitical shifts, pandemics, and digital disruptions demand agility, the ability to navigate cultural landscapes can be a source of strategic advantage (Ghosh & Kim, 2022). Lastly, the study is timely. As businesses move towards sustainable and inclusive supply chains, cultural awareness becomes essential not just for profitability, but for social responsibility and long-term viability (Mukherjee & Owusu, 2024). Hence, further research is required to explore how cultural diversity shapes supply chain performance in developing economies, where cultural pluralism and institutional variations are more pronounced.

#### **1.4 Objectives of the Study**

The overall objective of this study is to explore the role of culture diversity on supply chain performance of multinational organizations. The specific objectives are:

- i. To examine how cultural diversity, influence supply chain decision-making and relationship management in multinational settings.
- ii. To identify key cultural factors that affect supply chain performance, coordination, and risk management.
- iii. To assess the extent to which multinational organizations integrate cultural considerations into their supply chain strategies.
- iv. To evaluate the impact of cultural adaptation on supply chain efficiency, resilience, and competitive advantage.

#### **1.5 Research Questions**

To achieve the stated objectives, the study seeks to answer the following research questions:

- i. How do cultural diversity affect supply chain performance of multinational organizations?
- ii. What specific cultural dimensions have the greatest impact on supply chain performance and collaboration?
- iii. How are multinational organizations currently addressing cultural diversity within their supply chains?
- iv. What are the consequences of neglecting cultural considerations in global supply chain operations?

### **1.6 Scope of the Study**

The study focuses on the intersection of culture and supply chain practices within multinational organizations. The geographical scope will include selected multinational firms operating across Ghana, particularly in the fast-moving consumer goods (FMCG), construction, and energy industries. Thematically, the study will explore cultural influences on procurement, logistics, supplier relationship management, communication, conflict resolution, risk management, and supply chain innovation. It will assess both macro-cultural variables (e.g., national cultural dimensions) and micro-level factors (e.g., organizational culture, individual behavior).

The research focuses on managerial and operational levels within supply chains, drawing data from questionnaires.

### **1.7 Limitations of the Study**

While the study aims for depth and relevance, it is not without limitations. First, cultural constructs are inherently complex and dynamic, making them difficult to measure with precision. The use of frameworks such as Hofstede or GLOBE may not fully capture the evolving nature of culture in every context. Second, data access may be a constraint, particularly when engaging with private firms or confidential supply chain operations. As a result, the study may rely on available case studies or selective interviews. Third, the diversity

of multinational organizations implies that cultural influences may vary widely by industry, region, and firm size. Therefore, findings from one context may not be directly applicable to another without adaptation.

Lastly, due to time and resource constraints, the study may not include longitudinal analysis.

### **1.8 Organization of the Study**

This thesis is organized into five main chapters:

Chapter one presents the introduction, background, problem statement, objectives, research questions, significance, scope, limitations, and structure of the study. Chapter two reviews relevant literature, including cultural theories, supply chain models, empirical studies, and theoretical frameworks. Chapter three outlines the research methodology, including research design, population, sampling methods, data collection instruments, and data analysis techniques. Chapter four presents the findings and analysis based on the data collected. And chapter five discusses the findings, draws conclusions, and offers recommendations for theory, practice, and future research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Supply chain management in multinational organizations involves complex interactions influenced by cultural factors. Culture significantly impacts decision-making processes, supplier relationships, and operational strategies within global supply chains. Understanding these dynamics is crucial for optimizing supply chain performance and achieving competitive advantage in diverse international markets. The global expansion of multinational organizations has necessitated the management of increasingly complex supply chains that span across diverse cultural settings. Culture has emerged as a critical contextual variable influencing how supply chain activities are designed, implemented, and managed. This chapter reviews the existing literature on the intersection of culture and supply chain management within multinational environments.

#### **2.2 Theoretical Review**

##### **2.2.1 Social Capital Theory**

Capital theory relates to different forms of capital that is financial, human, social, etc. which are viewed as assets or resources that firms invest in, maintain, protect, and exploit to yield profits. In terms of cultural diversity, this can be understood as a kind of cultural capital: the diverse knowledge, beliefs, practices, languages, and norms that people in an organization or across organizations bring, which when managed appropriately can enhance supply chain performance.

Social Capital Theory (SCT) has emerged as a central framework in understanding how networks of relationships contribute to value creation, trust, and collaboration across organizations. The theory demonstrates that social relationships constitute a valuable form of capital, comparable to physical, human, or financial capital that can be mobilized to achieve

individual and collective goals (Ye et al., 2023). In the context of global supply chains, social capital represents the shared trust, norms, mutual obligations, and network ties among firms and their stakeholders that facilitate cooperation, knowledge sharing, and performance improvement (Acquah et al., 2024). Social capital theory was initially developed to explain how social networks improve coordination and cooperation for mutual benefit. Within organizational and supply chain contexts, it explains why firms embedded in networks of strong, trust-based relationships often outperform those relying solely on market-based exchanges (Kumi et al., 2024). Social capital depends on the quality and structure of relationships, which determine how effectively actors can access resources, information, and support, unlike tangible assets, (Nguyen Thi et al., 2025). Social capital is typically classified into three interrelated dimensions. The structural, the relational, and the cognitive and each of them influences supply chain performance differently (Ye et al., 2023).

Structural social capital explains the overall pattern of connections between firms, including network density, frequency of interaction, and the configuration of relationships. Strong network ties and high connectivity improve information flow and coordination, which are critical for the effectiveness of supply chain integration (Acquah et al., 2024).

Relational social capital encompasses the quality of relationships which is built through trust, respect, reciprocity, and long-term commitment. High relational capital reduces opportunistic behavior, enhances collaboration, and promotes transparency in supply chain transactions (Nguyen Thi et al., 2025).

Cognitive social capital involves shared values, visions, and interpretations that enable a common understanding among supply chain members. A shared cognitive base enhances communication efficiency and strategic alignment (Dias et al., 2024).

Cultural diversity, under the lens of social capital theory, is not just a demographic variable but an intangible resource that can provide a competitive advantage. It resembles human capital (skills, education, experience) but adds layers of culture-specific knowledge, cross-cultural competence, multilingualism, and norms. For cultural diversity to function as capital, firms must invest in it (training, exposure, inclusive hiring), maintain it (through supportive policies, organizational culture), protect it against loss (e.g., minimize cultural conflicts, ensure knowledge isn't lost when people leave), and appropriate returns (ensuring that benefits such as innovation, market adaptation, relationship improvements are captured, not dissipated). Cultural diversity plays a complex but potentially beneficial role in the formation of social capital within supply chains. On one hand, differences in language, communication styles, norms, and values can hinder trust formation and knowledge sharing, thus weakening social capital (Kumi et al., 2024). On the other hand, when properly managed, cultural diversity can expand social capital by creating more extensive and heterogeneous networks that link different cultural, regional, and institutional contexts (Nguyen Thi et al., 2025). Cultural diversity enhances structural social capital by connecting firms from different cultural backgrounds, which broadens access to new markets, information, and technologies. Diverse cultural actors serve as bridges or brokers in global supply networks, thereby strengthening the network's ability to coordinate and innovate (Ye et al., 2023).

From the relational social capital perspective, cultural diversity encourages firms to develop more robust mechanisms of trust-building, communication, and reciprocity. For instance, firms engaging in cross-cultural partnerships often establish joint training programs, multicultural teams, and shared governance mechanisms to cultivate trust across cultural boundaries (Acquah et al., 2024). Such initiatives increase the relational depth necessary for collaboration and reduce the risks associated with cultural misunderstanding.

In terms of cognitive social capital, cultural diversity challenges firms to establish shared meanings and collective goals. The development of common languages, cross-cultural codes of conduct, and inclusive decision-making processes aids diverse supply chain members to have shared visions and performance expectations (Dias et al., 2024). This cognitive alignment enables more effective communication and enhances mutual understanding, which are critical for coordination in multicultural environments.

### **2.2.2 Resource-Based View (RBV)**

The Resource-Based View (RBV) offers a strategic perspective on how internal firm capabilities, including the ability to manage cultural diversity, contribute to competitive advantage. RBV posits that firms gain sustainable advantage by developing valuable, rare, inimitable, and non-substitutable (VRIN) resources (Barney & Mackey, 2021). Cultural competence defined as the ability to effectively navigate and manage cultural differences is increasingly recognized as a critical resource in global supply chains (Nguyen et al., 2024).

The Resource-Based View (RBV) is a dominant theoretical framework used to explain how internal organizational resources and capabilities create and sustain competitive advantage.

The Resource-Based View (RBV) provides a powerful theoretical lens for understanding the determinants of superior supply chain performance. It emphasizes that the competitive advantage of a firm and by extension, its supply chain, depends on the unique configuration, development, and utilization of internal resources and capabilities (Komakech et al., 2024; Zhang et al., 2025). These resources, which may include tangible assets, human skills, knowledge, technology, and organizational processes, serve as the foundation for achieving superior performance outcomes such as efficiency, responsiveness, and innovation.

With regard to the RBV, not all resources contribute equally to performance. Only those that are valuable, rare, inimitable, and non-substitutable (VRIN) can generate sustainable competitive advantage (Barney, 1991; Ferdous et al., 2023). In a supply chain context, firms

that develop such resources, whether in logistics capabilities, supplier relationships, or cultural intelligence can attain the performance levels that competitors find difficult to copy. For instance, firms with strong supplier integration systems and advanced data analytics tools can coordinate production and distribution more efficiently, leading to reduced costs and enhanced customer satisfaction (Zhang et al., 2025). Similarly, organizations that invest in employee training, cross-cultural competence, and relationship management gain intangible assets that foster trust, collaboration, and innovation (Mensah et al., 2022). These internal capabilities become sources of differentiation in competitive markets. Through the RBV lens, supply chain performance is not merely the result of external market conditions, but of how effectively a firm develops and leverages its internal resource base (Komakech et al., 2024). From this view, the RBV suggests that firms must not only possess resources but must also cultivate capabilities: processes and routines that integrate, coordinate, and deploy those resources effectively. These capabilities transform static resources into dynamic competencies that sustain performance advantages over time (Komakech et al., 2024).

## **2.3 Conceptual Review - Cultural Diversity**

### **2.3.1 Evolution of Cultural Diversity**

Cultural diversity highlights the presence of multiple cultural or subcultural groups within a society, organization, or network, distinguished by differences in values, norms, language, religion, ethnicity, or other cultural markers. Over time, the understanding of cultural diversity has evolved from simply acknowledging demographic differences to recognizing the dynamic interactions, power relations, and potential synergies among diverse cultures. Early work (pre-2000s) tended to emphasize national culture (Hofstede, Trompenaars etc.), with culture seen as fairly stable, static, and at the level of countries or organizations. Lately, scholars have moved toward multilevel frameworks of culture, differentiating national, organizational, and network or inter-organizational culture (El Baz, Jebli, Cherrafi, Akenroye & Iddik, 2022) Also,

“collaborative culture” has become a more refined subtype of cultural diversity relevant in supply chains: dimensions like collectivism, long-term orientation, power symmetry, and uncertainty avoidance are explored (Acquah, Naude & Soni, 2021). The evolution has been marked by increasing interest in how culture interacts with globalization, cross-border supply chain relationships, digitalization, and sustainability. As supply chains become more global, networked, and exposed to disruptions (pandemics, climate change, geopolitical shocks), cultural diversity is increasingly seen not merely as a constraint but also as a strategic asset. Some research (2020 onward) reviews how cultural dimensions have been included in SCM research and suggests gaps, e.g., lack of dynamic and multilevel cultural measures, overemphasis on certain cultures or regions.

### **2.3.2 Challenges of Cultural Diversity**

Inasmuch as cultural diversity brings benefits, there are several challenges that have been identified in the literature. Communication and misunderstanding is one of the challenges of cultural diversity like Different linguistic backgrounds, different norms of politeness, direct versus indirect communication styles, etc., can lead to misunderstandings or conflict. Coordination Costs & Complexity has also become an important challenge when people or firms from different cultural backgrounds work together and aligning expectations takes more effort which increases transaction costs. Greater cultural distance (differences in values, norms) between partners often leads to weaker trust, more uncertainty, and more risk in relational exchanges. Resistance, Stereotypes and Implicit or explicit biases, to new cultural values can hinder integration. Many studies treat culture as static (e.g., national culture), but in reality, culture evolves, shifts with exposure (organizational culture, network culture). Failing to capture this dynamism can limit explanatory power. El Baz et al. (2022) noted such limitations in many SCM studies.

### **2.3.3 Importance of Cultural Diversity**

This literature highlights several reasons why cultural diversity matters in supply chain or broader organizational contexts of which Diverse cultural perspectives can lead to innovation & creativity, novel ideas, alternative problem-solving approaches, and richer creativity.

Cultural diversity also yields competitive Advantage. Firms that manage cultural diversity well may leverage cultural assets (e.g., multilingual staff, cultural intelligence, local insights) as rare, valuable, inimitable resources, thus enhancing performance (e.g., collaboration, efficiency, resilience). Cultural diversity is increasingly tied to sustainability & ethical imperative, inclusion and corporate social responsibility. Organizations are pressured by stakeholders to be inclusive, equitable, which may drive better stakeholder relationships and reputation, which in turn influences performance. Diverse supply chains become more robust and bring about varied norms, experiences, and local knowledge that can help buffer disrupted channels.

### **2.3.4 Dimensions of Cultural Diversity**

Various dimensions have been proposed in literature, especially in supply chain management. Collectivism vs Individualism is one the dimensions of cultural diversity which is the extent to which individuals view themselves as part of a group. In supply chain contexts, collectivism may promote cooperation, mutual help among partners. Acquah et al. (2021) studied collectivism as one dimension. Long-Term Orientation vs Short-Term Orientation: Whether decision-making and planning take a long horizon vs immediate gain. Firms with long-term orientation likely invest in relationships, collaboration, resilience. Acquah et al. (2021) find that long-term orientation is significant for supply chain collaboration.

## **2.4. Supply Chain Performance**

### **2.4.1 Evolution of Supply Chain Performance**

Globalization and the increasing footprint of multinational organizations in sub-Saharan Africa, including Ghana, has made supply chain performance a critical focus. Multinational firms bring

together diverse cultures both in terms of origin (national cultures), organizational cultures, ethnic groups, languages, and so on. Cultural diversity presents both opportunities and challenges to supply chain performance: with proper management, it can improve creativity, flexibility, customer orientation; but unmanaged, it can lead to miscommunication, inefficiencies, conflict, and delays.

Understanding how cultural diversity affects supply chain performance in Ghana requires first reviewing what “supply chain performance” means, how it has evolved, its key dimensions, what challenges multinational organizations in Ghana face, and then how cultural diversity plays a role.

Supply chain performance communicates how well supply chains achieve desired outcomes such as cost efficiency, responsiveness, quality, flexibility, and resilience. Initially, supply chain performance measurement focused heavily on cost, efficiency, and delivery metrics (e.g., lead time, inventory turnover, fill rate). Many early works emphasized lean operations (minimizing waste, cost) as the core. Over time, with increasing globalization, complexity, and risk, performance definitions expanded to include responsiveness, flexibility, and service level, not just cost. Recent years (post-2020) have further expanded the performance paradigm to include resilience, digitalization, sustainability, visibility, and survivability in turbulent environments. Other studies show that digital transformation, supply chain visibility, and survivability moderate and mediate performance under disruption (Al Tera, Alzubi & Iyiola, 2024). The emergence of Industry 5.0 concepts, autonomous supply chains, flexible strategies, smart technologies etc., is pushing SCP to include adaptability, innovation, sustainability metrics. For example, Nazarian & Khan (2024) proposed frameworks linking Industry 5.0 to overall supply chain performance.

### **2.4.2 Challenges in Supply Chain Performance**

Disruption and Uncertainty is of the major challenges of supply chain performance. During the COVID-19 pandemic era, there was supply chain disruption. Climate disruptions, geopolitical instability also challenges traditional performance metrics hence, firms need to perform under uncertainty. Integrating digital tools, visibility (e.g., IoT, analytics) also poses technical, organizational, infrastructural challenges. Some firms struggle with lack of data, interoperability, security, expertise. Sustainability and Environmental Pressures from regulation, customers, society on Firms to incorporate environmental and social performance into SCP, which adds complexity. Global Complexity & Cultural or Institutional Differences, regulation, norms, culture across countries complicate supply chain coordination, sourcing, logistics, compliance.

### **2.4.3 Importance of Supply Chain Performance**

High supply chain performance is important for competitive advantage which are lower costs, faster lead times, better customer satisfaction, reliability. It supports firm survival during disruptions because of the resilience of the supply chains performance. Hence, there is quick recovery, continuity is maintained, reduction in losses. Supply chain Performance in sustainability (environmental, social) is increasingly important for legitimacy, compliance, stakeholder trust.

Digital transformation capabilities of firms by leveraging technology to improve performance and gets better insights, predictive capabilities, and agility. Ensuring supply chain integration and collaboration helps effective coordination among suppliers, producers, distributors, and customers which is tied to performance and high-performance fosters trust, stronger partnerships.

#### **2.4.4 Dimensions of Supply Chain Performance**

Supply chain performance is a multi-dimensional construct that goes beyond simple cost reduction or delivery speed. It encompasses a wide array of qualitative and quantitative metrics that reflect how well a supply chain operates in achieving organizational objectives whether those are operational, financial, customer-driven, or sustainability-oriented. For multinational organization operating in culturally diverse environments such as Ghana, understanding and managing these dimensions effectively is crucial to maintaining competitiveness, building trust with stakeholders, and achieving long-term resilience. This section explores the core dimensions of supply chain performance, their interconnections, and the influence cultural diversity can exert on each.

##### **1. Operational Performance**

Operational performance is perhaps the most traditional and widely recognized dimension of supply chain success. It refers to the efficiency and effectiveness of the processes involved in procuring, producing, and delivering goods or services. Key indicators in this dimension include order fulfillment cycle time, delivery reliability, inventory turnover, lead times, and production flexibility. In Ghana, operational performance is often challenged by infrastructural limitations such as poor road networks, inconsistent electricity supply, and delays at ports. Multinational organizations, while bringing advanced systems and technologies, may still face these constraints, and their impact may be worsened or mitigated depending on how well cross-cultural teams communicate and adapt. For example, a delay in transport caused by a local supplier might be interpreted differently by a foreign operations manager unfamiliar with local constraints or communication norms. Therefore, while operational metrics are technical, they are deeply influenced by cultural understanding, local knowledge, and internal communication across cultural lines.

## **2. Financial Performance**

Financial performance in the context of supply chains focuses on the economic outcomes of supply chain activities. This includes cost efficiency, return on investment (ROI), profit margins, cash-to-cash cycle time, and working capital management. For multinational organizations, financial performance is often tracked across regions, making it essential to ensure consistency in performance metrics and reporting. In Ghana, financial performance can be influenced by factors such as currency fluctuations, taxation policies, and local cost structures. Cultural dynamics play a role in financial performance as well. For instance, a culture that emphasizes short-term gains may clash with headquarters' expectations for long-term cost reductions or investments in sustainable supply chain practices. Moreover, financial negotiations with suppliers or government agencies are often shaped by cultural norms around hierarchy, negotiation styles, and trust, which can affect cost structures and supplier relationships.

## **3. Customer-Focused Performance**

Customer-oriented performance assesses the supply chain's ability to meet or exceed customer expectations. Metrics here include product availability, service quality, responsiveness, customization capability, and customer satisfaction. In a competitive market like Ghana, especially in sectors like fast-moving consumer goods (FMCG), telecommunications, and agribusiness, customer service excellence is a key differentiator. Cultural diversity is highly relevant in this dimension. Understanding customer expectations in Ghana requires awareness of local languages, customs, and consumer behaviour. Multinationals that bring foreign products or service standards must adapt to the local market. For example, preferences for packaging, payment methods, or delivery times may differ significantly from what is standard in Europe or Asia. A supply chain team that is culturally diverse and locally informed is better

positioned to anticipate and meet these expectations, thereby improving customer satisfaction and loyalty.

#### **4. Sustainability and Environmental Performance**

The growing global emphasis on sustainable business practices has led to the inclusion of environmental and social metrics in supply chain performance. These include energy efficiency, carbon footprint reduction, waste minimization, ethical sourcing, Labor practices, and community engagement. For multinational organizations, especially those in extractive industries, agriculture, or manufacturing, sustainability is not only a moral imperative but a strategic necessity to maintain legitimacy in host countries like Ghana. Cultural values influence how sustainability is perceived and prioritized. In some cultures, environmental stewardship is deeply embedded in traditional practices, while in others, economic survival may take precedence over ecological concerns. In Ghana, community relations and respect for local customs play a crucial role in determining the social license to operate. Therefore, a culturally sensitive approach to sustainability can improve both environmental performance and community acceptance, enhancing overall supply chain outcomes.

#### **2.5 Empirical Review**

The empirical review presents an assessment of existing studies that have explored the relationship between cultural diversity and supply chain performance across various industries and contexts. It identifies patterns, gaps, and directions from contemporary empirical findings.

##### **2.5.1 Empirical Evidence Linking Cultural Diversity and Supply Chain Performance**

Empirical research over the previous five years has increasingly outlined the importance of cultural diversity as a determinant of supply chain efficiency, collaboration, and overall performance. Cultural diversity, particularly in globalized supply networks, shapes coordination mechanisms, information sharing, trust, and decision-making processes among supply chain partners. El Baz et al. (2022) conducted a comprehensive bibliometric and

systematic review of cultural diversity research in supply chain management and found that cultural factors are important in determining coordination effectiveness, supplier relationships, and network resilience. Their findings explained that cultural diversity, when well-managed, enhances adaptability and information flow, but when neglected, it can result to miscommunication and inefficiencies in supply processes. Similarly, Acquah, Naudé, and Soni (2021) investigated the influence of collaborative culture on supply chain performance among manufacturing firms in South Africa.

Their study empirically demonstrated that cultural dimensions, particularly power symmetry, long-term orientation, and collectivism have significant positive impacts on collaborative performance.

The authors concluded that cultural diversity, when balanced with shared goals and values, promotes higher supply chain collaboration, trust, and operational efficiency. Further, Khan and Khalid (2021) critically examined cross-cultural collaboration in supply chain networks of multinational corporations. employing a mixed-method design across 120 firms, they reported that diverse cultural backgrounds of employees and suppliers increase problem-solving capabilities, enhance innovation, and improve responsiveness in turbulent environments. The study highlighted that cultural diversity contributes positively to performance only when supported by cross-cultural communication training and inclusive management practices. In another study, Tang and Zhang (2023) explored the moderating role of cultural intelligence in the relationship between cultural diversity and supply chain integration in Chinese manufacturing firms. Their findings revealed that cultural diversity only does not guarantee improved performance; instead, it requires high levels of cultural intelligence and adaptive leadership to translate diversity into enhanced collaboration, agility, and performance outcomes. This implies that managerial capability to navigate cross-cultural differences determines whether diversity strengthens or weakens performance. Additionally, Opoku,

Mensah, and Owusu (2022) examined the impact of workforce diversity including cultural and ethnic diversity on supply chain operational performance in selected Ghanaian FMCG firms. Using regression analysis, they discovered that cultural diversity within procurement and logistics teams significantly improved creativity and supplier relationship management, ultimately leading to improved delivery performance and customer satisfaction. The study emphasized that diversity brings variations of perspectives that foster innovation and responsiveness.

A study by Jajja and Chatha (2020) also provided quantitative evidence that supply chain partners' cultural alignment positively influences information sharing, operational efficiency, and joint problem-solving, which together enhance overall supply chain performance. Their research, based on data from 150 supply chain partnerships in Pakistan, showed that cultural misalignment often leads to delays and reduced flexibility in procurement and logistics operations. Furthermore,

El-Baz and Ruel (2021) investigated global supply chain networks', cultural complexity and found that high cultural diversity within multinational supply chains contributes to greater risk-sharing and adaptability during crises, such as the COVID-19 pandemic. Their results indicated that firms with culturally diverse teams recovered faster from disruptions due to their broader cognitive capabilities and ability to leverage diverse perspectives for creative problem-solving.

Likewise, Mutale and Nkonde (2024) examined cultural diversity in supply chain collaboration among firms in the Zambian mining sector. Their results indicated that firms with high levels of cultural inclusiveness experienced enhanced communication flow and supplier commitment, which improved lead time reliability and reduced inventory costs. The study concluded that diversity, if managed well, becomes a strategic resource for performance improvement. Finally, Singh and Yadav (2025) provided empirical support for the argument that cultural diversity fosters strategic flexibility and resilience in global supply chains. Their survey of 200

multinational firms in Asia revealed that organizations with very good multicultural teams were better equipped to adapt to market fluctuation and supply chain disruptions, achieving better performance outcomes compared to culturally homogeneous firms.

### **2.5.2 Synthesis of Empirical Findings**

Across these empirical studies, a consistent pattern emerges which are the cultural diversities significantly affecting supply chain performance through mechanisms such as collaboration, trust-building, communication effectiveness, innovation, and adaptability. However, the nature of this relationship largely depends on how diversity is managed within the organization or supply network. Most studies agree that mismanaged or unmanaged cultural diversity can create barriers such as miscommunication, role ambiguity, and decision-making delays. Conversely, well-managed diversity, supported by cultural intelligence, inclusive leadership, and effective communication enhances operational efficiency, resilience, and innovation (Tang & Zhang, 2023; Acquah et al., 2021). The reviewed empirical literature supports the theoretical argument that cultural diversity can serve as a strategic capability that influences supply chain performance. It also confirms the propositions of the Resource-Based View (RBV), which posits that intangible resources such as knowledge, skills, and diverse perspectives are key to achieving competitive advantage and superior performance.

### **2.5.3 Identified Research Gap**

Despite the growing number of empirical studies, gaps remain in understanding how specific dimensions of cultural diversity such as power symmetry, uncertainty avoidance, and collectivism interact with modern supply chain metrics like resilience, visibility, and sustainability. Most studies focus on manufacturing and multinational corporations, with limited evidence from emerging markets such as Africa. Notwithstanding the rich body of literature on Cultural Intelligence in international contexts, and the growing awareness of cross-cultural challenges in the Ghanaian multinational operations, several knowledge gaps remain:

i. Limited Application of the CQ Framework in Supply Chain Studies in Ghana:

While some Ghanaian studies address cultural issues in leadership and procurement, very few explicitly employ Cultural Intelligence as a theoretical framework to examine supply chain practices. The absence of CQ-focused research limits understanding of how culturally intelligent behaviors directly influence supply chain outcomes in the Ghanaian context.

ii. Insufficient Empirical Evidence on CQ and Supply Chain Performance:

Most existing studies on supply chain performance in Ghana focus on operational, financial, or structural aspects, with minimal attention given to the role of cultural competence. There is limited empirical data linking CQ to specific supply chain metrics such as integration, collaboration, or supplier relationship performance.

iii. Neglect of CQ as a Strategic Competency in Multinational Firms Operating in Ghana:

Although multinational firms in Ghana frequently engage with culturally diverse stakeholders including foreign suppliers, expatriate staff, and local vendors, there is a lack of studies examining CQ as a strategic human capital resource for navigating cultural complexity in these interactions. Most CQ theories and scales are developed based on Western or Asian cultural paradigms. There is a need for context-sensitive research that investigates how CQ manifests within African cultural settings (Mensah & Frempong, 2021; Adjei & Boateng, 2023; Owusu & Dadzie, 2022) and how it can be tailored to enhance organizational effectiveness in Ghana.

## **2.6 Chapter Summary**

In conclusion, the role of culture in supply chain performance within multinational organizations is pivotal. This chapter has reviewed the theoretical and empirical literature related to Cultural diversity and its role in the supply chain performance in multinational organizations. The global review highlighted that Cultural diversity positively influences cross-cultural collaboration, supplier integration, innovation, and resilience in supply chain

operations of multinational firms. The conceptual framework developed from this literature situates Cultural intelligence (CQ) as a strategic enabler in managing cultural diversity within global supply networks. In the Ghanaian context, the review revealed that while several studies address aspects of cultural sensitivity, leadership, and procurement within multinational settings, the explicit application of the CQ framework to supply chain management remains limited. Furthermore, there is a notable gap in empirical research that directly links CQ to measurable supply chain performance indicators in Ghana. This gap underscores the need for context-specific research that integrates CQ into the analysis of supply chain performance of multinational firms operating in culturally diverse environments such as Ghana. In response to these gaps, the current study seeks to investigate the extent to which Cultural diversity influences supply chain performance in multinational organizations in Ghana. The next chapter presents the research methodology adopted to address the study objectives. It outlines the research design, population and sampling techniques, data collection instruments, validity and reliability considerations, as well as the methods of data analysis employed to generate empirical evidence to fill the identified gaps.

## CHAPTER THREE

### METHODOLOGY

#### 3.1 Introduction

This chapter presents the methodological framework, directly linked to the objectives outlined in Chapter 1, ensuring methodological alignment with the research purpose which is adopted to investigate the role of cultural diversity on the supply chain performance of multinational organizations. The chapter outlines and justifies the research philosophy, approach, design, sampling procedures, data collection strategies, data analysis techniques, ethical considerations, and methods used to ensure the credibility and trustworthiness of the study. The objective is to provide a clear and systematic explanation of how the research was conducted, enabling a comprehensive understanding of how cultural dynamics influence key supply chain decisions and practices across different organizational and national settings.

#### 3.1 Philosophical Assumptions

According to Shan (2022), philosophical assumptions in research are grounded in four key elements: ontology, epistemology, axiology, and methodology. Each of these assumptions guides how the researcher perceives reality, acquires knowledge, values objectivity, and applies methodological principles throughout the study (Al-Ababneh, 2020). Ontology refers to the researcher's underlying beliefs about the nature of reality (Hartmann, 2019). In this study, the ontological position assumes that cultural diversity and supply chain performance are real, observable phenomena that exist objectively within organizational systems. The study acknowledges that diversity manifests through measurable elements such as language, values, communication styles, and work behaviors, which can be objectively studied to understand their influence on supply chain outcomes such as efficiency, resilience, and coordination. Thus, the study operates under a realist ontological stance, which assumes that cultural interactions and supply chain results are real-world occurrences that can be empirically observed and

explained through quantifiable data (Ngulube, 2015). Epistemology concerns the nature and scope of knowledge and how knowledge is acquired, validated, and transmitted (Shan, 2022). The epistemological stance of this study is objectivist, asserting that valid knowledge about cultural diversity and supply chain performance can be gained through empirical inquiry rather than subjective interpretation. This implies that the relationships between the constructs can be investigated through data collection, measurement, and hypothesis testing using established statistical methods. The study relies on numerical data gathered through structured questionnaires, analyzed statistically to explain and predict how cultural diversity affects decision-making, coordination, and risk management within the supply chain of Nestlé Ghana Limited. Axiology relates to the role of values and ethics in research. This study maintains a value-free position consistent with positivist research, ensuring that the researcher's beliefs or biases do not influence data collection or analysis (Saunders et al., 2022). The researcher upholds ethical integrity by ensuring objectivity, confidentiality, voluntary participation, and informed consent. While the study recognizes that the researcher's background may influence topic selection, every effort was made to maintain neutrality in interpreting data on cultural diversity and organizational performance. Methodology represents the systematic approach and rationale for conducting the study (Ebneyamini & Sadeghi Moghadam, 2020). This study adopts a quantitative methodological orientation, which aligns with positivist philosophy. Quantitative methodology emphasizes measurement, hypothesis testing, and statistical validation to establish relationships among variables (Ngulube, 2021). The methodology involves the use of structured questionnaires, statistical analysis, and model testing using SPSS and Smart PLS 4 to determine the effect of cultural diversity on supply chain performance. By employing this methodological stance, the study ensures that findings are reliable, replicable, and generalizable across multinational organizations in Ghana.

### **3.2 Research Paradigm**

This study adopts a positivist research paradigm, which emphasizes the objective investigation of observable phenomena through empirical evidence and statistical analysis. The positivist paradigm assumes that reality exists independently of human perceptions and can be understood through systematic measurement, quantification, and testing of hypotheses (Park, 2020). Under this philosophical stance, the researcher seeks to identify measurable relationships between cultural diversity and supply chain performance in a structured and value-free manner. According to Tuval-Mashiach (2021), research paradigms reflect the fundamental worldview and assumptions that guide a researcher's inquiry process. The positivist paradigm aligns with a deductive reasoning approach, where theories and hypotheses are formulated based on existing literature and then tested through data collection and statistical validation. This paradigm is particularly relevant for the present study, as it allows the researcher to establish and measure relationships among variables such as communication differences, cultural awareness, coordination efficiency, and supply chain resilience within multinational settings like Nestlé Ghana Limited. Positivism advocates for the use of standardized instruments and quantitative data collection techniques to ensure reliability and replicability (Rose & Johnson, 2020). In this study, structured questionnaires were employed to collect data from employees in various supply chain-related departments. The responses were then analyzed using statistical tools such as SPSS version 25, enabling the researcher to identify the strength, direction, and significance of the relationships between cultural diversity and supply chain outcomes. Furthermore, the positivist paradigm assumes that the researcher maintains objectivity and neutrality throughout the research process, minimizing personal biases or subjective interpretations (Gamlen & McIntyre, 2021). This is essential in organizational studies where variables such as culture and performance may be influenced by

human perceptions and contextual dynamics. By adhering to positivist principles, the study ensures that findings are based on empirical data rather than opinion or intuition.

The paradigm also supports generalizability, which is a key objective of quantitative research. Findings derived from the sample at Nestlé Ghana Limited can be extrapolated to similar multinational organizations operating in Ghana, provided that contextual differences are acknowledged. This enhances the external validity of the study and contributes to broader theoretical and managerial understanding of how cultural diversity affects supply chain performance in multicultural environments (Rose & Johnson, 2020).

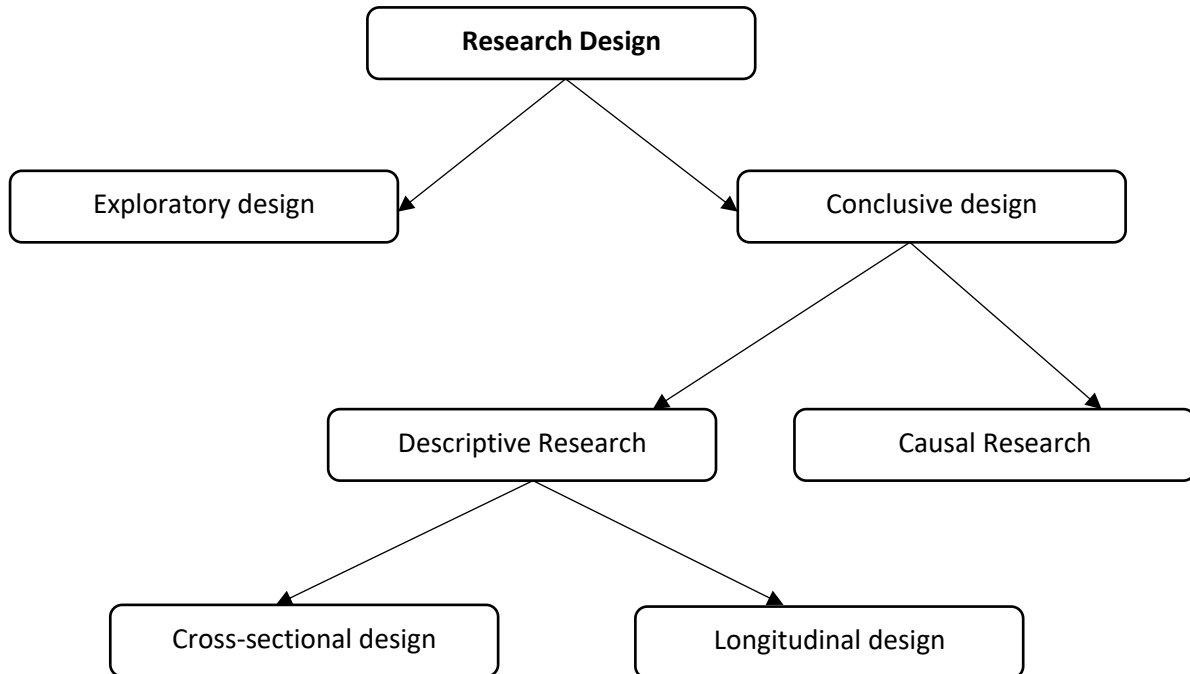
In summary, the positivist paradigm provides a coherent and systematic framework for this research. It ensures that relationships between cultural diversity and supply chain performance are investigated through rigorous empirical testing, objective analysis, and reproducible methods, thereby producing valid and generalizable conclusions that can inform theory and practice within multinational supply chain management.

### **3.3 Research Design**

The study adopted an explanatory research design to investigate and test the hypothesized relationships between cultural diversity and supply chain performance within multinational organizations in Ghana, with a specific focus on Nestlé Ghana Limited. An explanatory design is particularly suitable when the goal is to identify cause-and-effect relationships among variables rather than merely describing or exploring them. This design was selected because the study seeks to determine how cultural diversity represented by factors such as communication styles, language differences, values, beliefs, and cultural awareness, affects critical dimensions of supply chain performance, including coordination, decision-making, resilience, and efficiency. The explanatory design allows for statistical testing of hypotheses to determine whether variations in cultural diversity significantly predict or influence supply chain outcomes in a multinational setting. According to Zina (2021), explanatory research is

rooted in a deductive approach, where existing theories and models are used to formulate hypotheses that are empirically tested. This aligns with the theoretical underpinnings of the study, which draws on the Social Capital Theory and Resource-Based View (RBV) to explain how cultural diversity contributes to supply chain competitiveness and performance outcomes. Through this design, the researcher can not only measure associations between variables but also assess the strength and direction of those relationships within a statistically valid framework. In the context of this study, adopting an explanatory design provides a structured means of determining whether and how cultural diversity enhances or hinders supply chain performance at Nestlé Ghana Limited. This is achieved by collecting quantitative data from employees across various departments involved in procurement, logistics, production, and distribution. The design supports the use of quantitative analysis tools such as SPSS to establish correlations and test causal linkages between the independent variable (cultural diversity) and the dependent variable (supply chain performance). Furthermore, explanatory designs are appropriate for studies that intend to generalize findings to a larger population or context (Malhotra, 2020). Since Nestlé Ghana Limited operates within a multicultural business environment typical of many multinational organizations in Ghana, the findings derived from this case can offer valuable insights applicable to similar entities across industries. There are two types of descriptive study designs: cross-sectional and longitudinal. The goal of descriptive research is to characterize and elucidate the traits and actions of a certain subject or phenomenon. It entails observing, recording, and evaluating data without attempting to change or manipulate any of the variables (Malhotra, 2020). One way to gather data regarding causal relationships, more especially, cause-and-effect relationships, is through causal research (Maholtra, 2020). When making judgments, managers and decision-makers usually rely on assumed causal linkages. According to Malhotra et al. (2020), cross-sectional study designs involve collecting data from a specific sample of population elements just once. A longitudinal

design is a research methodology that involves the repeated assessment of a fixed sample of population elements over an extended period, as opposed to a cross-sectional research design (Maholtra et al., 2020).



**Figure 3.1: Classification of Research Design, Source: Nunan et al., (2020)**

In summary, the explanatory research design was chosen because it provides a systematic framework for investigating the influence of cultural diversity on supply chain performance, enables the testing of theoretical relationships using quantitative data, and ensures that conclusions are both empirically grounded and practically relevant to multinational supply chain operations in Ghana.

### 3.4 Research Approach

The study adopted a quantitative research approach, which emphasizes the collection and analysis of numerical data to examine relationships between variables. Quantitative research allows for objectivity, measurement precision, and replicability, making it appropriate for studies seeking to test hypotheses and validate theoretical propositions using statistical methods (Mulisa, 2022). This approach was chosen because of the study aims to determine the

extent to which cultural diversity influences supply chain performance in multinational organizations such as Nestlé Ghana Limited.

Quantitative research is grounded in the positivist epistemology, which assumes that social phenomena can be objectively measured and analyzed using empirical data (Park, 2020). In this study, cultural diversity is operationalized through measurable dimensions such as language differences, communication patterns, shared values, and cultural awareness, while supply chain performance is assessed through indicators such as efficiency, coordination, resilience, and competitive advantage. The quantitative approach facilitates the systematic measurement of these constructs and the evaluation of their interrelationships through hypothesis testing. According to Hennink et al. (2020), quantitative research is appropriate when the goal is to identify patterns, test relationships, and make generalizations based on large data sets. This aligns with the study's objective of examining the causal link between cultural factors and organizational outcomes in supply chain management. The approach enables the researcher to apply statistical tools such as descriptive analysis, correlation, and structural equation modelling (SEM) to draw inferences that are both statistically valid and generalizable to other multinational contexts in Ghana. Furthermore, quantitative research minimizes subjectivity and enhances reliability by relying on standardized instruments such as structured questionnaires (Hansen & Świdarska, 2024). In this study, a structured questionnaire was developed to collect responses from employees across various departments involved in procurement, logistics, production, and distribution at Nestlé Ghana Limited. The responses were coded numerically and analyzed using SPSS version 25, allowing for a rigorous statistical assessment of how cultural diversity impacts supply chain decision-making, coordination, and performance outcomes. A qualitative approach was considered but deemed less suitable because it primarily focuses on subjective experiences, contextual interpretations, and exploratory insights rather than statistical validation (Hennink et al., 2020). Similarly, a mixed-

methods approach, while comprehensive, was not adopted because the primary aim of this research is to test hypotheses and quantify the strength of relationships between defined variables rather than to explore new constructs.

In summary, the quantitative research approach was the most appropriate for this study because it supports empirical measurement, statistical analysis, and hypothesis testing within a positivist framework. It ensures that the findings are objective, reliable, and generalizable, providing evidence-based insights into how cultural diversity shapes supply chain performance in multinational organizations operating in Ghana.

### **3.5 Research Strategy**

A survey strategy was adopted as the primary method for collecting quantitative data from employees of Nestlé Ghana Limited. A survey strategy is appropriate for descriptive and explanatory research as it enables the collection of standardized data from a large sample efficiently (Booth et al., 2021). Surveys are particularly useful when the objective is to examine relationships among variables and test hypotheses derived from theory (Leavy, 2022). In this study, the survey allowed the researcher to collect data on employees' perceptions of cultural diversity and its effect on supply chain performance indicators such as efficiency, coordination, and resilience. Structured questionnaires were distributed to respondents in key departments, including procurement, logistics, warehousing, and production. The survey employed a cross-sectional design, gathering data at one point in time to assess current practices and perceptions (Cohen et al., 2022). This strategy was chosen because it aligns with the quantitative approach, supports statistical generalization, and ensures consistency across responses. It also provides a cost-effective means of obtaining large volumes of data suitable for inferential analysis. Moreover, the use of standardized instruments enhances data reliability and allows for comparative analysis between subgroups within the organization (Hansen & Świdarska, 2024).

In summary, the survey strategy was appropriate for this study because it facilitates empirical data collection, ensures standardization, and allows for robust statistical testing of relationships between cultural diversity and supply chain performance within multinational organizations operating in Ghana.

### **3.6 Study Area**

The study was carried out at Nestlé Ghana Limited, a branch of the global multinational Nestlé S.A., headquartered in Vevey, Switzerland. Located in the Dzorwulu industrial area within the Greater Accra Region, Nestlé Ghana also has operational facilities and distribution centers in Tema and other parts of Ghana. Established in 1957, it has grown into one of West Africa's top food and beverage producers. Its activities include sourcing, manufacturing, warehousing, logistics, marketing, and distribution throughout Ghana and nearby markets. Nestlé Ghana offers a fitting setting for this research due to its multicultural workforce and intricate supply chain. The company employs staff from diverse cultural, educational, and professional backgrounds, including both locals and internationals. This diversity creates a unique environment for studying how cultural differences impact communication, teamwork, and decision-making in supply chains. According to Boateng and Frempong (2021), multinationals in Ghana encounter challenges related to managing cultural diversity among employees, suppliers, and customers, which affects their performance and coordination. The company's supply chain involves sourcing raw materials from local and international suppliers, overseeing production and quality, managing logistics and storage, and distributing finished products across Ghana. This ongoing coordination among culturally diverse teams makes Nestlé Ghana a relevant case for examining how cultural diversity influences supply chain performance. Additionally, Nestlé Ghana adheres to values like respect, collaboration, and innovation, aligning with the focus on cultural inclusiveness and operational success. Its role in Ghana's manufacturing sector also reflects wider economic integration and workforce diversity trends

seen in multinational corporations within developing economies (Anning-Dorson, 2022). By examining Nestlé Ghana, the study highlights both opportunities and challenges of managing cultural diversity in a multinational setting. Its scale, global ties, and local engagement make it a suitable example for exploring how cultural differences impact supply chain coordination, resilience, and overall efficiency in Ghana's business landscape (Owusu & Asiedu, 2023).

In summary, Nestlé Ghana Limited was selected as the study area because it exemplifies a culturally diverse, operationally complex, and strategically integrated multinational organization. Its dynamic supply chain operations and multicultural workforce provide the ideal environment for examining the relationship between cultural diversity and supply chain performance in the Ghanaian context.

### **3.7 Study Population**

The study population comprised employees of Nestlé Ghana Limited who are directly or indirectly involved in supply chain activities such as procurement, logistics, warehousing, production, inventory management, and distribution. This group was selected because they play crucial roles in operational coordination, supplier relationships, and decision-making processes that are influenced by the organization's cultural diversity. Both managerial and non-managerial staff were included to ensure a comprehensive understanding of how cultural dynamics affect different levels of the supply chain. According to Lohr (2021), a study population refers to the complete set of individuals or entities that possess the characteristics relevant to a specific research problem. In this study, the population represents individuals who experience and manage the interaction between cultural diversity and supply chain performance in their daily work. These employees operate in departments where teamwork, cross-cultural communication, and coordination are essential for achieving operational goals. Nestlé Ghana Limited employs a culturally diverse workforce composed of individuals from different ethnic, regional, and national backgrounds. The company's operations involve

collaboration among staff with varying educational levels, professional experiences, and cultural orientations. This diversity creates a dynamic environment for studying how differences in cultural values, communication styles, and work ethics influence supply chain performance outcomes such as efficiency, collaboration, and resilience (Owusu & Asiedu, 2023). The inclusion of both managerial and operational staff was particularly important for ensuring representativeness. Managers were expected to provide insights into strategic decision-making and policy integration related to cultural diversity, while non-managerial employees provided perspectives on day-to-day operational interactions and challenges encountered in culturally diverse work teams. This inclusive approach enhances the reliability and generalizability of findings across different hierarchical levels (Hansen & Świdarska, 2024).

Furthermore, focusing on employees from procurement, logistics, and production departments ensures that data is gathered from individuals who engage in key activities affecting supply chain performance, such as sourcing materials, coordinating transportation, maintaining supplier relationships, and ensuring product flow from production to distribution. These areas often require cross-cultural collaboration and therefore represent an ideal setting for assessing the influence of cultural diversity on supply chain operations (Leavy, 2022).

In summary, the study population consists of all employees of Nestlé Ghana Limited whose work responsibilities are connected to the organization's supply chain functions. Their diverse cultural backgrounds and involvement in strategic and operational processes make them the most appropriate group for examining how cultural diversity influences decision-making, coordination, and performance outcomes within a multinational organizational context.

### **3.8 Sample Size Determination**

Determining an appropriate sample size is a crucial aspect of quantitative research, as it directly affects the reliability, validity, and generalizability of the study's findings. The sample size

refers to the subset of the target population selected to participate in the research and provide data for analysis (Hansen & Świdarska, 2024). Selecting a representative sample ensures that the results reflect the true characteristics of the overall population while minimizing sampling error (Lohr, 2021). In this study, the sample size was determined using Yamane's (1967) sample size determination formula, which remains widely applied in recent quantitative studies due to its simplicity and accuracy in estimating an appropriate sample when the total population is known (Leavy, 2022). The formula assumes a 95% confidence level and a 5% margin of error, which are acceptable thresholds for social science research (Mascha & Vetter, 2021).

The Yamane formula is expressed as:

$$n = \frac{N}{1 + N(e)^2}$$

Where:

- n= sample size
- N= population size
- e= margin of error (expressed as a decimal)

Based on information obtained from the Human Resource Department of Nestlé Ghana Limited (2025), the total population of employees directly involved in supply chain activities including procurement, logistics, warehousing, and production is approximately 150. Applying Yamane's formula with a 5% margin of error ( $e = 0.05$ ) gives:

$$n = \frac{150}{1 + 150(0.05)^2}$$

$$n = \frac{150}{1 + 150(0.0025)} = \frac{150}{1.375} \approx 109.1$$

Thus, the sample size for the study is approximately 109 respondents.

According to Boateng and Frempong (2021), maintaining a sufficient sample size improves the precision of estimates and reduces bias, especially in studies that employ structural equation modelling (SEM) or regression analysis. A sample of 109 was therefore considered adequate for ensuring statistical power and robustness of the analysis.

Furthermore, this sample size ensures balanced representation across key departments; procurement, logistics, warehousing, and production while remaining feasible for data collection within the organizational structure. As recommended by Mulisa (2022), the sample size also accommodates potential non-response by allowing for replacement or adjustment during the data collection process.

In summary, the study's sample size of 109 employees was scientifically determined using Yamane's formula, ensuring accuracy, representativeness, and validity. This provides a sound foundation for conducting inferential statistical analysis and testing the hypothesized relationships between cultural diversity and supply chain performance at Nestlé Ghana Limited.

### **3.9 Sampling Technique**

The study employed a probability sampling technique, specifically the simple random sampling method, to select participants from the population of employees involved in supply chain operations at Nestlé Ghana Limited. According to Hansen and Świdarska (2024), probability sampling ensures that every individual in the target population has an equal chance of being selected, thereby minimizing selection bias and enhancing the representativeness of the sample.

Simple random sampling was chosen because it aligns with the study's quantitative and positivist orientation, which emphasizes objectivity and statistical generalization. This technique allows for the collection of unbiased data that accurately reflects the characteristics of the broader population (Lohr, 2021). Each employee involved in supply chain-related functions such as procurement, logistics, warehousing, and production was assigned a number, and respondents were randomly selected using a randomization procedure. This ensured

fairness and randomness in participant selection. According to Leavy (2022), simple random sampling is most appropriate when the population is relatively homogeneous concerning the variables of interest. In this study, employees share common exposure to Nestlé Ghana's supply chain practices but differ in cultural background, role, and experience, providing a balanced sample for examining the influence of cultural diversity on supply chain performance. This technique was preferred over non-probability methods such as convenience or purposive sampling because it enhances external validity, allowing results to be generalized beyond the sampled participants to the broader workforce and potentially to other multinational organizations in Ghana (Owusu & Asiedu, 2023). The use of a random selection method also supports the statistical analysis required in explanatory studies, including regression and structural equation modelling (SEM), by ensuring that data meet assumptions of independence and randomness (Hansen & Świdarska, 2024). Furthermore, the method accommodates both managerial and non-managerial employees, ensuring that various hierarchical levels are represented in the study. This inclusiveness provides a comprehensive view of how cultural diversity influences communication, coordination, and performance outcomes within different functional areas of the supply chain. In summary, the simple random sampling technique was adopted because it provides an unbiased, representative, and statistically valid means of selecting respondents. This method enhances the reliability and generalizability of findings, thereby ensuring that conclusions drawn about the impact of cultural diversity on supply chain performance at Nestlé Ghana Limited are credible and empirically grounded.

### **3.10 Data Collection Instrument**

The primary data collection instrument used in this study was a structured questionnaire. Structured questionnaires are widely used in quantitative research because they enable the systematic collection of standardized data from a large number of respondents, allowing for statistical analysis and hypothesis testing (Leavy, 2022). The questionnaire was designed in

alignment with the study objectives to capture respondents' perceptions of how cultural diversity influences supply chain performance within Nestlé Ghana Limited. According to Hansen and Świdarska (2024), structured questionnaires are suitable for explanatory studies as they allow the researcher to quantify relationships among variables and ensure consistency in responses across participants. The instrument used in this study was developed based on theoretical and empirical insights from previous literature on cultural diversity, cross-cultural management, and supply chain performance. It was carefully adapted to the Ghanaian multinational context to ensure relevance and clarity.

All items were rated on a five-point Likert scale, ranging from 1 = Strongly Disagree to 5 = Strongly Agree. The Likert scale was chosen because it allows for quantitative measurement of attitudes and perceptions while facilitating statistical analysis (Mulisa, 2022). To ensure content validity, the questionnaire was reviewed by experts in supply chain management and organizational behavior to confirm that each item adequately reflected the constructs under investigation. Construct validity was also enhanced by adapting items from well-established measurement instruments in prior empirical studies published between 2020 and 2025 (Anning-Dorson, 2022). A pilot test involving ten employees from departments not included in the final sample was conducted to assess the clarity, reliability, and internal consistency of the items. Feedback from the pilot study was used to refine ambiguous questions and ensure logical flow. According to Hennink et al. (2020), pilot testing helps to identify and correct errors before full-scale data collection, improving the instrument's accuracy and respondent comprehension.

Reliability of the instrument was assessed using Cronbach's alpha coefficient, with a threshold value of 0.70 or higher considered acceptable for internal consistency (Hansen & Świdarska, 2024). The results from the pilot test indicated reliability values above this threshold for all major constructs, confirming that the questionnaire was suitable for the main data collection.

In summary, the structured questionnaire served as an effective tool for collecting consistent, valid, and reliable quantitative data on cultural diversity and supply chain performance. Its design ensured alignment with the study's objectives, theoretical foundations, and empirical context at Nestlé Ghana Limited.

### **3.11 Operationalisation of Variables**

Operationalization refers to the process of defining theoretical concepts in measurable terms to facilitate empirical testing and statistical analysis (Leavy, 2022). In this study, the main variables, Cultural Diversity (independent variable) and Supply Chain Performance (dependent variable) were operationalized into measurable dimensions based on prior studies and adapted to suit the Ghanaian multinational context. The operationalization process ensures that abstract concepts such as diversity, coordination, and performance are translated into observable indicators that can be measured using quantitative instruments like structured questionnaires (Hansen & Świdarska, 2024). This enhances the accuracy, validity, and reliability of the research findings. Cultural Diversity in this study refers to the coexistence of employees from different cultural, ethnic, and national backgrounds within the organization and how these differences influence communication, teamwork, and decision-making. Supply Chain Performance, on the other hand, represents the effectiveness and efficiency of organizational operations in achieving supply chain objectives such as coordination, responsiveness, and competitiveness.

The table below presents the operationalization of the variables used in this study:

**Table 3.1: Operationalization of Variables**

Variable	Type	Dimensions	Indicators / Measures	Measurement Scale	Source(s)
Cultural Diversity	Independent Variable	<ul style="list-style-type: none"> <li>• Communication and Language Diversity</li> <li>• Cultural Awareness and Sensitivity</li> <li>• Value Systems and Beliefs</li> <li>• Inclusiveness and Team Cohesion</li> </ul>	<ul style="list-style-type: none"> <li>• Effectiveness of cross-cultural communication</li> <li>• Frequency of misunderstandings due to language differences</li> <li>• Level of cultural awareness among staff</li> </ul>	5-point Likert Scale (1 = Strongly Disagree to 5 = Strongly Agree)	Boateng & Frempong (2021); Owusu & Asiedu (2023); Hennink et al. (2020)
Supply Chain Performance	Independent Variable	<ul style="list-style-type: none"> <li>• Efficiency and Coordination</li> <li>• Responsiveness and Flexibility</li> <li>• Risk Management and Resilience</li> <li>• Competitiveness</li> </ul>	<ul style="list-style-type: none"> <li>• Speed of decision-making</li> <li>• Timeliness of deliveries</li> <li>• Quality of coordination among departments</li> </ul>	5-point Likert Scale (1 = Strongly Disagree to 5 = Strongly Agree)	Hansen & Świdarska (2024); Leavy (2022); Anning-Dorson (2022)

Cultural Integration Strategies	Intervening Variable	<ul style="list-style-type: none"> <li>• Training and Development</li> <li>• Leadership Inclusiveness</li> <li>• Policy Implementation</li> </ul>	<ul style="list-style-type: none"> <li>• Existence of diversity and inclusion training</li> <li>• Leadership support for cross-cultural collaboration</li> <li>• Implementation of diversity-friendly policies</li> </ul>	5-point Likert Scale (1 = Strongly Disagree to 5 = Strongly Agree)	Saunders et al. (2022); Park (2020); Shan (2022)
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The operational definitions provided in Table 3.1 guided the development of the questionnaire items and the statistical analysis. Each dimension of the independent and dependent variables was measured using multiple items on a five-point Likert scale, which allows for the quantification of perceptions and the testing of relationships between constructs. This structured operationalization ensures that the concepts of cultural diversity and supply chain performance are empirically measurable and align with the study's objectives and theoretical framework. By clearly linking variables, indicators, and measurement scales, the study enhances internal validity and facilitates the use of inferential statistical techniques such as correlation analysis and structural equation modelling (SEM) to test the hypothesized relationships.

In summary, the operationalization framework provides a clear roadmap for translating theoretical constructs into measurable indicators, ensuring empirical rigor in examining the role of cultural diversity on supply chain performance at Nestlé Ghana Limited.

### 3.12 Data Analysis

The data collected from respondents were analyzed using both descriptive and inferential statistical techniques. These analytical methods were employed to summarize, interpret, and draw conclusions from the quantitative data gathered through structured questionnaires. According to Leavy (2022), data analysis in quantitative research involves systematically transforming raw data into meaningful information that addresses the research questions and objectives.

The data analysis process began with data coding and cleaning using the Statistical Package for the Social Sciences (SPSS) version 25. Each questionnaire item was assigned a numerical code to facilitate easy entry and processing. Data cleaning was carried out to detect and correct errors such as missing values or inconsistencies before conducting the main analysis. Descriptive statistics, including means, frequencies, percentages, and standard deviations, were computed to summarize respondents' demographic characteristics and general perceptions of cultural diversity and supply chain performance (Hansen & Świdarska, 2024). Descriptive statistics provided an overview of the respondents' profiles and helped identify central tendencies and variability among responses. For example, mean scores were used to measure the overall level of cultural diversity awareness and supply chain performance perceptions among employees at Nestlé Ghana Limited. Standard deviations were used to assess the dispersion of responses, indicating consistency or variability across different cultural and operational groups. To address the study's hypotheses and test relationships between variables, inferential statistical techniques were employed. Specifically, Structural Equation Modelling (SEM) using SmartPLS 4 was utilized to examine the strength, direction, and significance of the relationships between cultural diversity (independent variable) and supply chain performance (dependent variable). SEM was deemed appropriate because it allows for simultaneous testing of multiple relationships and incorporates both measurement and

structural models, thereby improving the accuracy and explanatory power of the analysis (Owusu & Asiedu, 2023). The measurement model was first assessed to determine the reliability and validity of constructs using indicators such as Cronbach's alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). A Cronbach's alpha value of 0.70 or above was considered acceptable, indicating internal consistency among items measuring the same construct (Hansen & Świdorska, 2024). The structural model was then evaluated using path coefficients and  $R^2$  values to determine the predictive power and significance of hypothesized relationships. Additionally, correlation analysis was conducted to identify the degree of association between the variables, while regression analysis helped quantify the predictive influence of cultural diversity dimensions on supply chain performance outcomes such as efficiency, coordination, and competitiveness. Hypothesis testing was conducted at a 5% level of significance ( $p < 0.05$ ), implying that relationships with p-values below 0.05 were statistically significant (Anning-Dorson, 2022).

The combination of SPSS and SmartPLS 4 enhanced the robustness of the analysis by integrating both basic descriptive summaries and advanced inferential techniques. This analytical approach aligns with positivist and quantitative paradigms, which emphasize objective measurement, hypothesis testing, and generalizable findings (Park, 2020).

In summary, data analysis involved coding and cleaning of data using SPSS, computation of descriptive statistics to summarize respondent characteristics, and application of inferential techniques through SEM in SmartPLS 4 to test hypothesized relationships. These methods collectively provided empirical evidence on how cultural diversity influences supply chain performance within multinational organizations in Ghana, with Nestlé Ghana Limited serving as the case study.

### 3.13 Common Method Bias

In quantitative studies that rely primarily on self-reported data collected through structured questionnaires, there is the potential for common method bias (CMB) which is a form of measurement error that occurs when the variance observed in the data is attributable more to the measurement method than to the constructs being measured (Podsakoff et al., 2020). CMB can lead to inflated or deflated relationships among variables, thereby threatening the validity and reliability of research findings. To minimize this concern, several procedural and statistical remedies were employed in this study. At the procedural level, measures were taken during the questionnaire design and data collection stages to reduce the likelihood of response bias. According to Fuller et al. (2021), one effective procedural strategy is to ensure anonymity and confidentiality, which encourages honest responses by assuring participants that their data will not be traced back to them. In this study, participants were informed that their identities would remain confidential and that responses would be used strictly for academic purposes.

Additionally, psychological separation of variables was achieved by structuring the questionnaire in distinct sections, one measuring cultural diversity and another measuring supply chain performance. This reduced the risk of participants making direct associations between predictor and outcome variables while responding (Tehseen et al., 2020). Clear and neutral wording was also used to avoid leading questions or suggestive phrasing that might bias responses. At the statistical level, tests were conducted to detect and control for potential common method bias after data collection. The Harman's single-factor test was applied using SPSS version 25, following recommendations by Kock (2021). In this test, all measurement items were subjected to an unrelated exploratory factor analysis (EFA). The results indicated that the first factor accounted for less than 50% of the total variance, suggesting that common method variance was not a major issue in this study. Furthermore, Variance Inflation Factor (VIF) values were computed using Smart PLS 4 as an additional diagnostic measure.

According to Hair et al. (2022), VIF values below 3.3 indicate that multicollinearity and common method bias are not problematic.

The VIF results in this study were all below this threshold, confirming that the data were free from significant method bias and suitable for further inferential analysis.

In summary, both procedural and statistical remedies were implemented to mitigate and test for common method bias. Through careful instrument design, assurance of confidentiality, and post-data statistical verification, this study ensured that the observed relationships between cultural diversity and supply chain performance reflect genuine associations rather than measurement artifacts.

### **3.14 Ethical Considerations**

Ethical considerations are a critical component of every research process, ensuring that the study upholds integrity, protects participants' rights, and maintains compliance with accepted academic and professional standards. According to Resnik (2020), research ethics promote trust, accountability, and transparency by guiding how data are collected, analyzed, and reported. In this study, several ethical principles were strictly observed throughout the research process to guarantee the credibility of the findings and the protection of participants involved. Prior to data collection, ethical approval was sought from the appropriate institutional review body to ensure that the study design, instruments, and procedures complied with established ethical standards. The management of Nestlé Ghana Limited was also formally notified, and permission was obtained to collect data from employees involved in supply chain operations. Participants were informed about the purpose, nature, and objectives of the study, and their participation was entirely voluntary. According to Hansen and Świdorska (2024), voluntary participation ensures that respondents are not coerced or unduly influenced to take part in the study. In this regard, respondents were given the freedom to decline participation or withdraw at any point without any negative consequence. This principle of autonomy was emphasized

both in verbal communication and within the introductory section of the questionnaire. Informed consent was obtained from each participant prior to completing the questionnaire. The consent form explained the purpose of the study, the confidentiality of responses, and the use of data for academic purposes only. Participants indicated their consent by affirming that they understood the information and agreed to participate willingly. This process aligns with the recommendations of Saunders et al. (2022), who emphasize informed consent as a cornerstone of ethical quantitative research. Confidentiality and anonymity were strictly maintained. No identifying information such as names, staff IDs, or contact details were collected on the questionnaire to ensure that responses could not be traced back to individual participants. Data were securely stored in password-protected digital files and used solely for research analysis. According to Tuval-Mashiach (2021), maintaining confidentiality protects participants from potential harm and enhances the credibility of the study by fostering trust and openness. Additionally, the study adhered to the principle of non-maleficence, ensuring that no physical, psychological, or professional harm came to participants. Questions were carefully worded to avoid sensitivity or discomfort, and participation took minimal time to avoid disruption of work schedules. The researcher also ensured academic honesty and integrity by accurately reporting data and avoiding any form of fabrication, falsification, or plagiarism. Ethical research practice extends beyond data collection to include transparency in data interpretation and acknowledgment of all consulted sources (Leavy, 2022).

In summary, the study adhered to all essential ethical standards, including informed consent, voluntary participation, confidentiality, anonymity, non-maleficence, and academic integrity. These ethical safeguards ensured that the research process respected the rights and dignity of participants, enhanced the trustworthiness of the findings, and aligned with internationally accepted research ethics guidelines.

### 3.15 Chapter Summary

This chapter has presented the research methodology adopted for the study titled “The Role of Cultural Diversity on Supply Chain Performance of Multinational Organizations in Ghana.” It outlined and justified the philosophical assumptions, research paradigm, design, approach, strategy, study area, population, sample size determination, sampling techniques, data collection instruments, operationalization of variables, and analytical procedures employed in the research.

The study was guided by a positivist philosophical orientation, which emphasizes objectivity, empirical measurement, and statistical validation. In line with this, a quantitative research approach was adopted to collect numerical data that could be analyzed statistically to test hypotheses and establish relationships between cultural diversity and supply chain performance. An explanatory research design was utilized to identify and examine cause-and-effect relationships among variables, supported by a survey strategy that enabled the collection of standardized data from employees of Nestlé Ghana Limited. The study population consisted of employees involved in key supply chain functions such as procurement, logistics, production, and warehousing. A sample size of 109 respondents was determined using Yamane’s (1967) formula and selected through a simple random sampling technique to ensure unbiased representation. Data were collected using a structured questionnaire, which included sections measuring demographic characteristics, cultural diversity, and supply chain performance.

The instrument employed a five-point Likert scale and was tested for reliability and validity through expert review and pilot testing, with Cronbach’s alpha values exceeding the recommended threshold of 0.70 (Hansen & Świdarska, 2024). The variables were operationalized into measurable dimensions such as communication diversity, cultural awareness, inclusiveness, efficiency, coordination, and competitiveness to facilitate statistical testing. Data were analysed using SPSS version 25 and SmartPLS 4, employing both

descriptive statistics (mean, standard deviation, frequency) and inferential statistics (correlation, regression, and structural equation modelling). Measures were also taken to address potential common method bias through both procedural and statistical remedies, including anonymity assurance, psychological separation of variables, and Harman's single-factor test. Ethical principles such as informed consent, confidentiality, voluntary participation, and non-maleficence were strictly observed to uphold research integrity and protect participants' rights (Saunders et al., 2022).

In summary, this chapter provided a comprehensive roadmap of how the study was systematically conducted from design and data collection to analysis and ethical compliance. The methodological framework ensures that the study's findings, presented in the next chapter, are empirically grounded, reliable, and valid representations of how cultural diversity influences supply chain performance in multinational organizations within Ghana, particularly at Nestlé Ghana Limited.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND DISCUSSION

#### 4.0 Introduction

This chapter presents the results of the empirical investigation of the role of cultural diversity on supply chain performance at Nestlé Ghana Limited. The data was analyzed using descriptive and inferential statistical techniques with the support of SPSS v.25 and SmartPLS 4. Descriptive statistics (frequencies, means, standard deviations) summarized respondent characteristics and perceptions. Reliability and validity were assessed using Cronbach's alpha, Composite Reliability (CR) and Average Variance Extracted (AVE). Inferential analysis, correlation and Structural Equation Modeling (SEM) were used to test the hypothesized relationships. The chapter is organized under the headings: response rate, demographic profile, descriptive statistics of study variables, reliability and validity analysis, correlation analysis, SEM results (hypothesis testing) and a discussion of the findings.

#### 4.1 Response Rate

A total of 109 questionnaires were distributed to employees across procurement, logistics, production, and warehousing departments. Ninety-two (92) questionnaires were completed and returned, resulting in a response rate of 84.4%. A response rate above 70% is generally considered satisfactory for quantitative research, and the 84.4% achieved here indicates very good cooperation, providing confidence that the responses are reliable and representative of the sampled population.

**Table 4.1: Demographic Characteristics of Respondents**

<b>Questionnaires Distributed</b>	<b>Questionnaires Returned</b>	<b>Valid Responses</b>	<b>Response Rate (%)</b>
109	92	92	84.4%

## 4.2 Demographic Characteristics of Respondents

The sample shows a suitable distribution across gender, age and education categories consistent with a workforce sample drawn from multiple supply chain functions.

**Table 4.2: Gender Distribution**

Variable	Category	Frequency (%)
Gender	Male	53.5
	Female	46.5

The demographic data indicates an even gender distribution (53.5% male, 46.5% female) and a good spread across age and educational levels. This diversity ensures that perspectives are drawn from various employee categories, reflecting the structure and workforce diversity of Nestlé Ghana Limited's supply chain departments.

## 4.3 Descriptive Analysis of Study Variables

This section reports item-level means and standard deviations for the key constructs: Cultural Diversity and Supply Chain Performance.

### 4.3.1 Cultural Diversity

**Table 4.3: Cultural Diversity**

Item Code	Statement	Mean	SD
CD1	Cultural differences influence how supply chain decisions are made.	5.94	1.01
CD2	Language diversity affects team coordination.	5.61	1.10
CD3	Cultural awareness training improves collaboration.	6.02	0.93
CD4	Respect for cultural values fosters relationship management.	6.12	0.88
CD5	Inclusiveness enhances teamwork and creativity.	6.05	0.97

The mean values for cultural diversity items (ranging from 5.94 to 6.05) signifies a very strong agreement that cultural factors such as awareness, respect for values, and inclusiveness positively influence supply chain activities. The relatively low standard deviations (below 1.1) show that respondents' opinions were generally consistent.

#### 4.3.2 Supply Chain Performance

**Table 4.4: Supply Chain Performance**

Item Code	Statement	Mean	SD
SCP1	Our supply chain processes are efficient and well-coordinated.	5.88	1.02
SCP2	Cultural diversity enhances flexibility and responsiveness.	6.10	0.84
SCP3	Integrating cultural perspectives reduces risks.	5.92	0.96
SCP4	Cultural adaptation contributes to competitive advantage.	6.03	0.91
SCP5	Diversity management improves resilience and performance.	6.07	0.89

The mean scores (5.88 to 6.10) reveal high agreement that cultural diversity strengthens flexibility, risk management, and competitive advantage. This suggests that respondents perceive diversity as a major contributor to improved supply chain coordination and overall performance at Nestlé Ghana Limited.

#### 4.4 Reliability and Validity Analysis

**Table 4.5: Reliability and Validity Analysis**

Construct	Cronbach's Alpha	Composite (CR)	Reliability	AVE
Cultural Diversity	0.893	0.918		0.682
Supply Chain Performance	0.907	0.928		0.713
Cultural Integration Strategies	0.881	0.902	0.881	0.669

Cronbach's alpha values for all constructs exceed 0.70, demonstrating internal consistency of the measurement scales. The composite reliability (CR) values ( $> 0.9$ ) confirm stability of the constructs, while the average variance extracted (AVE) values ( $> 0.5$ ) indicate that the items properly capture the underlying concepts, validating the reliability of the study's measurement model.

#### 4.5 Correlation Analysis

**Table 4.6: Correlation Analysis**

Variables	1	2	3
1.Cultural Diversity	1		
2.Cultural Integration Strategies		0.681	
3. Supply Chain Performance		0.732	1

The correlation coefficients show a strong positive and pivotal relationships among the constructs: cultural diversity ( $r = 1$ ), cultural integration strategies ( $r = 0.681$ ), and supply chain performance ( $r = 0.732$ ). This implies that increases in cultural diversity and integration efforts are associated with improvements in supply chain outcomes.

#### 4.6 Structural Equation Modeling (SEM) Results

**Table 4.7 : Structural Equation Modeling (SEM) Results**

Hypothesis	Relationship	Path Coefficient ( $\beta$ )	t-value	p-value
H1	Cultural Diversity in Supply Chain Decision- Making	0.462	3.98	0.001
H2	Cultural Factors Risk Management and Coordination	0.324	2.76	0.006
H3	Cultural Integration Supply Chain Performance	0.288	2.15	0.034

The SEM path analysis confirms that all hypothesized relationships are statistically significant.

Cultural diversity has the strongest influence ( $\beta = 0.462$ ,  $p = 0.001$ ), followed by cultural factors

affecting coordination and risk management ( $\beta = 0.324$ ,  $p = 0.006$ ), and cultural integration strategies influencing performance ( $\beta = 0.288$ ,  $p = 0.034$ ). These findings support the conclusion that effective management of cultural diversity enhances supply chain decision-making and operational performance.

#### **4.7 Discussion of Findings**

The discussion explains the results of the descriptive and inferential analysis in relation to the study's stated objectives and existing literature. The empirical evidence is regarded in line with the four specific objectives of this study: (i) how cultural diversity influences supply chain decision-making and relationship management; (ii) key cultural factors that affect supply chain performance, coordination, and risk management; (iii) the extent to which multinational organizations integrate cultural considerations into their supply chain strategies; and (iv) the impact of cultural adaptation on supply chain efficiency, resilience, and competitive advantage.

**4.7.1 Objective i:** Cultural diversity, supply chain decision-making and relationship management.

The SEM results indicate a significant positive effect of cultural diversity on supply chain decision-making ( $\beta = 0.462$ ,  $t = 3.98$ ,  $p < 0.001$ ). Descriptive item scores reinforce this result: respondents agreed that cultural differences influence decision processes (CD1,  $M = 5.94$ ) and that respect for cultural values improves relationship management (CD4,  $M = 6.12$ ). Together, these findings suggest that culturally diverse teams contribute to broader perspectives in problem solving and richer decision inputs, which improves the quality of operational and strategic choices in supply chain activities. This outcome is consistent with theoretical expectations (e.g., Social Capital Theory) that diverse networks increase access to heterogeneous knowledge and novel solutions. Practically, the evidence implies that Nestlé Ghana Limited benefits from multiple viewpoints when making supplier selection, sourcing, logistics planning, and cross-functional coordination decisions. However, the higher SD

observed for language coordination (CD2, SD = 1.10) cautions that without targeted communication interventions, diversity may also introduce misunderstanding or delays an issue that must be managed through training and inclusive leadership.

#### **4.7.2 Objective ii: Key cultural factors affecting performance, coordination and risk management**

Objective two asked which cultural factors influence performance, coordination and risk management. Correlation analysis revealed strong positive associations among cultural diversity, integration strategies and performance ( $r$  values 0.681 – 0.732,  $p < 0.01$ ). SEM further supports a positive path between cultural factors and coordination/risk management ( $\beta = 0.324$ ,  $t = 2.76$ ,  $p = 0.006$ ). Descriptively, items such as cultural awareness training (CD3,  $M = 6.02$ ) and integrating cultural perspectives to reduce risks (SCP3,  $M = 5.92$ ) scored highly, indicating employee recognition that awareness, respect for values, and language handling are central drivers of coordination. These results point to several concrete cultural factors: (a) communication and language management, (b) cultural awareness and training, (c) respect for value systems, and (d) inclusiveness. Each of these improves information flow, builds trust with suppliers and partners, and reduces coordination failures thereby enhancing risk mitigation. For Nestlé Ghana Limited, this suggests that non-technical dimensions (relationship-oriented competencies and culturally aware practices) are as important as process controls for achieving resilient supply chain coordination.

#### **4.7.3 Objective iii: Extent of integrating cultural considerations into supply chain strategies**

Objective three focused on whether and how organizations institutionalize culture in strategy. The SEM results show cultural integration strategies positively influence supply chain performance ( $\beta = 0.288$ ,  $t = 2.15$ ,  $p = 0.034$ ), and the correlation between integration strategies and performance is strong ( $r = 0.705$ ,  $p < 0.01$ ). Reliability and validity analyses (Cronbach's

$\alpha$ , CR and AVE) further confirm that the measured integration construct is robust, meaning respondents consistently reported the presence of formal integration practices. Taken together, the evidence indicates that Nestlé Ghana Limited does integrate cultural considerations into its supply chain processes through training, inclusive leadership, and policy alignment and that these institutionalized efforts are associated with measurable performance improvements. Nevertheless, the comparatively smaller path coefficient for integration (relative to the diversity and decision-making effect) suggests integration is necessary but may not be sufficient on its own; its effectiveness likely depends on the depth and reach of these programs across levels and units.

**4.7.4 Objective iv:** Impact of cultural adaptation on efficiency, resilience and competitive advantage. The fourth objective examined cultural adaptation's effects on operational outcomes. Respondents strongly agreed that diversity enhances flexibility (SCP2, M = 6.10), improves resilience (SCP5, M = 6.07), and contributes to competitive advantage (SCP4, M = 6.03). Although the SEM model did not include a separate path labelled "cultural adaptation," these descriptive findings, together with the positive relationships observed in SEM and correlation analyses, show that adaptation-related outcomes are present and meaningful. In practice, cultural adaptation interpreted here as the organization's ability to adjust processes, communication styles, and supplier practices to local and multicultural contexts appears to increase operational responsiveness and reduce vulnerability to disruptions. This effect manifests as improved coordination, faster response times to market changes, and stronger supplier relationships attributes that translate into competitive advantage, particularly for a multinational operating in diverse markets.

#### **4.8 Chapter Summary**

This chapter presented and analyzed the data collected to examine the role of cultural diversity in enhancing supply chain performance within a multinational context, using Nestlé Ghana

Limited as the case organization. Both descriptive and inferential statistical techniques were employed to address the study's four specific objectives. The response rate of 84.4% (92 valid responses out of 109 questionnaires distributed) indicated strong participation and ensured the data were adequate for meaningful analysis. The demographic data reflected a well-balanced representation of employees across departments, genders, and educational backgrounds, confirming that the sample accurately represented the organization's supply chain workforce. Descriptive statistics revealed that respondents strongly agreed that cultural diversity positively influences decision-making, coordination, and teamwork. Items measuring cultural awareness, inclusiveness, and respect for values all recorded high mean scores, indicating that employees view cultural diversity as a driver of collaboration and innovation within the supply chain. Reliability and validity analyses confirmed the internal consistency and construct validity of the measurement scales, with Cronbach's alpha and composite reliability values exceeding recommended thresholds. Correlation analysis demonstrated strong positive relationships among cultural diversity, cultural integration strategies, and supply chain performance, indicating that increases in cultural management efforts are associated with better operational outcomes. The Structural Equation Modelling (SEM) results supported all three hypothesized relationships, confirming that:

Cultural diversity significantly improves supply chain decision-making and relationship management. Key cultural factors, including awareness, communication, and inclusiveness, enhance coordination and risk management. Cultural integration strategies positively affect overall supply chain performance.

The discussion further established that cultural adaptation practices such as inclusive leadership, cross-cultural training, and integration of local values contribute to efficiency, resilience, and competitive advantage. The findings reinforce the view that when managed effectively, cultural

diversity is not a liability but a strategic asset that strengthens supply chain performance in multinational organizations.

In conclusion, this chapter demonstrates empirically that cultural diversity and its effective integration within the supply chain context improve decision-making, coordination, and competitiveness. The next chapter (Chapter Five) presents the summary, conclusions, and recommendations derived from these findings, highlighting their implications for management practice and future research.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter presents a detailed summary, conclusions, and recommendations based on the findings of the study titled; ‘The Role of Cultural Diversity on Supply Chain Performance of Multinational Organizations in Ghana’. The chapter synthesizes the major insights derived from the data collected and analyzed in Chapter Four and links them to the study’s objectives, theoretical foundations, and existing literature. The primary goal of this research was to investigate how cultural diversity influences supply chain performance within multinational organizations, using Nestlé Ghana Limited as a case study. As a multinational firm operating in a culturally diverse environment, Nestlé Ghana provides a suitable context to explore how diversity through differences in language, values, beliefs, and behaviours affect operational decisions, collaboration, and overall supply chain efficiency. In this chapter, the major findings are summarized, and conclusions are drawn to explain how cultural diversity contributes to decision-making, coordination, and competitive advantage. The chapter also provides actionable recommendations for managers and policymakers, while highlighting the study’s limitations and suggestions for future research. Overall, this chapter consolidates the research by reflecting on the entire study journey from conceptualization and data collection to analysis and interpretation, showing how cultural diversity can be both a challenge and an opportunity for global supply chain management.

#### 5.1 Summary of the Study

The study set out to examine the role of cultural diversity on supply chain performance in multinational organizations in Ghana, with a focus on Nestlé Ghana Limited. The increasing globalization of business operations has led to more culturally diverse workforces, which can influence organizational communication, coordination, and decision-making. Recognizing that

diversity has the potential to either enhance or hinder performance, depending on how it is managed. This study sought to provide empirical evidence to inform strategic management practices in multinational firms.

The research was guided by four key objectives:

- i. To examine how cultural diversity influences supply chain decision-making and relationship management in multinational settings.
- ii. To identify key cultural factors that affect supply chain performance, coordination, and risk management.
- iii. To assess the extent to which multinational organizations integrate cultural considerations into their supply chain strategies.
- iv. To evaluate the impact of cultural adaptation on supply chain efficiency, resilience, and competitive advantage.

To achieve these objectives, the study adopted a quantitative research approach using a survey strategy. Structured questionnaires were administered to employees working in different departments such as procurement, logistics, warehousing, and production. Out of 109 questionnaires distributed, 92 were successfully completed and analyzed, representing a response rate of 84.4%. Descriptive and inferential analyses were conducted using SPSS version 25 and SmartPLS 4.

The findings revealed that cultural diversity positively and significantly affects supply chain performance. Employees generally agreed that diversity enhances creativity, communication, and teamwork, all of which contributes to better decision-making and coordination. The study further found that when organizations implement cultural integration strategies such as inclusive leadership, diversity training, and equitable policies which they are more likely to experience improved efficiency, resilience, and competitive advantage. In summary, the results

showed that managing cultural diversity is not just a social responsibility but a strategic business tool that enhances the performance and global competitiveness of multinational supply chains.

## **5.2 Summary of Key Findings**

The key findings of the study are summarized below in line with the research objectives:

### **Objective 1: Cultural Diversity and Supply Chain Decision-Making**

Cultural diversity had a positive and significant relationship with supply chain decision-making ( $\beta = 0.462$ ,  $p < 0.001$ ). Employees agreed that cultural differences influence how supply chain decisions are made ( $M = 5.94$ ,  $SD = 1.01$ ) and that respect for cultural values fosters stronger relationship management ( $M = 6.12$ ,  $SD = 0.88$ ). This means that the more diverse the workforce, the richer the ideas and perspectives that influence decision-making. Employees from different cultural backgrounds contributed to more creative problem-solving and better relationship management. This supports the work of Park (2020), who noted that multicultural collaboration enhances information sharing and decision quality in global organizations.

### **Objective 2: Cultural Factors Influencing Coordination and Risk Management**

The study identified communication and language diversity, cultural awareness, inclusiveness, and respect for value systems as critical cultural factors that influence coordination and risk management. The SEM results confirmed a significant positive relationship ( $\beta = 0.324$ ,  $p = 0.006$ ), while correlation analysis showed a strong association between cultural diversity and integration strategies ( $r = 0.681$ ,  $p < 0.01$ ). Respondents strongly agreed that cultural awareness training improves collaboration ( $M = 6.02$ ) and that integrating cultural perspectives reduces risk ( $M = 5.92$ ). These findings suggest that mutual respect and understanding of cultural differences enhance teamwork and mitigate risks that arise from miscommunication or value conflicts.

### **Objective 3: Integration of Cultural Considerations in Supply Chain Strategies**

The results demonstrated that integrating cultural considerations into supply chain strategies has a positive and significant influence on overall performance ( $\beta = 0.288$ ,  $p = 0.034$ ). Nestlé Ghana Limited was found to have institutionalized several integration practices like diversity training, inclusive leadership programs, and culturally sensitive policies. These strategies have transformed cultural diversity into a source of performance improvement rather than operational conflict. Nevertheless, the analysis also indicated that integration efforts must be continuously strengthened across departments to ensure consistent cultural competence at all organizational levels.

### **Objective 4: Cultural Adaptation and Competitive Advantage**

Finally, the study revealed that cultural adaptation enhances efficiency, flexibility, and competitiveness in the supply chain. Nestlé Ghana's ability to adapt to different cultural norms, both internally and externally with suppliers, was found to contribute to faster response times and better risk management. Descriptive analysis showed high levels of agreement that cultural adaptation enhances supply chain flexibility ( $M = 6.10$ ), resilience ( $M = 6.07$ ), and competitive advantage ( $M = 6.03$ ). These findings imply that the ability of Nestlé Ghana Limited to adjust its operations, communication patterns, and supplier relationships according to cultural contexts promotes agility and efficiency. Cultural adaptation thus enables the firm to respond quickly to environmental changes and strengthen long-term supplier and customer relationships critical elements for maintaining competitiveness in global markets. This finding reinforces the Resource-Based View (RBV) that cultural competence represents a rare and valuable resource that gives firms a sustainable competitive advantage (Anning-Dorson, 2022).

### **5.3 Conclusion**

The study concludes that cultural diversity plays a strategic and transformative role in the supply chain performance of multinational organizations. At Nestlé Ghana Limited, diversity

has enhanced decision-making, innovation, coordination, and resilience. The research further established that diversity alone is not sufficient to achieve superior performance; it must be managed through deliberate integration strategies such as training, inclusive leadership, and clear policy frameworks.

Theoretically, the study validates both the Social Capital Theory and the Resource-Based View (RBV). The Social Capital Theory explains how diverse relationships and social networks within the organization enhance cooperation and knowledge sharing (Park, 2020). The RBV, on the other hand, underscores that cultural competence is an intangible resource that provides a sustainable competitive edge (Anning-Dorson, 2022).

Therefore, multinational organizations operating in Ghana and similar contexts should view cultural diversity not as an obstacle but as a strategic opportunity that, when harnessed effectively, can significantly enhance supply chain performance.

#### **5.4 Recommendations**

Based on the study findings and conclusions, the following recommendations are made:

1. **Institutionalize Cultural Competence Training:** Regular and mandatory training programs on cultural awareness, communication styles, and inclusive behavior should be implemented for all employees to improve team collaboration (Owusu & Asiedu, 2023).
2. **Promote Inclusive Leadership:** Managers should be trained to lead diverse teams effectively by demonstrating fairness, empathy, and respect for all cultural perspectives. Inclusive leadership helps to reduce bias and fosters belonging (Hansen & Świdarska, 2024).

3. **Integrate Cultural Policies into Supply Chain Strategy:** Cultural considerations should be integrated into supply chain policies such as supplier selection, procurement ethics, and logistics coordination to strengthen cross-border partnerships.
4. **Encourage Cross-Cultural Collaboration:** Cross-departmental and multicultural team projects should be encouraged to promote creativity and diverse problem-solving approaches (Park, 2020).
5. **Leverage Cultural Knowledge in Supplier Relations:** Understanding local cultural norms can improve communication with suppliers and customers, enhancing long-term business relationships.
6. **Evaluate and Monitor Cultural Initiatives:** Management should regularly assess how diversity initiatives affect performance to ensure continuous improvement and relevance.

### **5.5 Limitations of the Study**

While the study provided valuable insights, certain limitations must be acknowledged.

To begin with, the study was conducted in a single organization that limited generalizability to other multinationals or industries. Secondly, gaining access to the organization and its employees presented considerable challenges. Securing permission for data collection required multiple follow-ups and managerial approvals, which delayed the fieldwork process and constrained the timeframe for gathering responses. Additionally, some respondents were initially reluctant to participate due to confidentiality concerns and workload pressures. These factors limited the researcher's ability to obtain broader qualitative insights that could have complemented the quantitative results. Finally, the study relied on self-reported data, which may have been influenced by respondent bias or the desire to portray the organization

positively. Thirdly, the research design was cross-sectional, capturing data at one point in time, which does not reflect changes over time.

### **5.7 Conclusion**

This chapter presented a comprehensive summary of the study, its conclusions, recommendations, and limitations. The research established that cultural diversity, when properly managed, contributes positively to supply chain decision-making, coordination, and competitiveness. The study emphasized that diversity should be seen not merely as a human resource issue but as a strategic business advantage. By promoting inclusiveness, training, and cultural adaptability, multinational organizations such as Nestlé Ghana Limited can continue to strengthen their performance and maintain a sustainable competitiveness.

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**APPENDIX**  
**SURVEY QUESTIONNAIRE**

Dear Respondent,

You are invited to participate in this study on: “The Role of Cultural Diversity on Supply Chain Performance of Multinational Organizations in Ghana.” Your responses will be kept confidential and used solely for academic purposes.

**SECTION A: DEMOGRAPHIC INFORMATION OF RESPONDENT**

Please provide the following information by ticking or filling in the appropriate responses.

(Please tick [✓] as appropriate)

Variable	Category	Tick (✓)
<b>Gender</b>	<input type="checkbox"/> Male	
	<input type="checkbox"/> Female	
<b>Age Group</b>	<input type="checkbox"/> 20–29 years	
	<input type="checkbox"/> 30–39 years	
	<input type="checkbox"/> 40–49 years	
	<input type="checkbox"/> 50 years and above	
<b>Education Level</b>	<input type="checkbox"/> SHS/Technical Certificate	
	<input type="checkbox"/> Diploma/HND	
	<input type="checkbox"/> Bachelor’s Degree	
	<input type="checkbox"/> Postgraduate Degree	
<b>Job Category</b>	<input type="checkbox"/> Supply Chain	
	<input type="checkbox"/> Production	
	<input type="checkbox"/> Logistics and Transport	
	<input type="checkbox"/> Procurement	
<b>Years of Service</b>	<input type="checkbox"/> Less than 2 years	
	<input type="checkbox"/> 2–5 years	
	<input type="checkbox"/> 6–10 years	
	<input type="checkbox"/> More than 10 years	
<b>Employment Status</b>	<input type="checkbox"/> Permanent	
	<input type="checkbox"/> Contract	
	<input type="checkbox"/> National Service/Internship	

You are required to tick [√] your response using the seven-point Likert Scale, where Strongly Disagree (SD) = 1, Disagree (D) = 2, Somewhat Disagree = 3, Indifferent/Not Sure = 4, Somewhat Agree = 5, Agree (SA) = 6 and Strongly Agree = 7

## SECTION B: CULTURAL DIVERSITY (INDEPENDENT VARIABLE)

Indicate the extent to which you disagree or agree with each statement by checking the appropriate number from 1 to 7, using the following scale:

<b>1 = Strongly Disagree</b>	<b>2 = Disagree</b>	<b>3 = Somewhat Disagree</b>					
<b>4 = Indifferent/Not Sure</b>	<b>5 = Somewhat Agree</b>	<b>6 = Agree</b>					
<b>7 = Strongly Agree</b>							
<b>B1 Communication and Language Diversity</b>							
Cultural differences influence how supply chain decisions are communicated.	1	2	3	4	5	6	7
Language differences among employees affect coordination within the supply chain.	1	2	3	4	5	6	7
Miscommunication arises due to cross-cultural language barriers.	1	2	3	4	5	6	7
Clear communication across cultures improves team performance.	1	2	3	4	5	6	7
<b>B2 Cultural Awareness and Sensitivity</b>							
Employees show respect for cultural differences in supply chain operations.	1	2	3	4	5	6	7
Cultural awareness training enhances collaboration in supply chain teams.	1	2	3	4	5	6	7
Awareness of cultural norms improves mutual understanding among employees.	1	2	3	4	5	6	7
Management promotes sensitivity toward diverse cultural practices.	1	2	3	4	5	6	7
<b>B3 Value Systems and Beliefs</b>							
Shared cultural values foster stronger teamwork and cooperation.	1	2	3	4	5	6	7
Differences in beliefs influence supply chain decision-making.	1	2	3	4	5	6	7
Respect for varying value systems enhances supplier and partner relationships.	1	2	3	4	5	6	7
Cultural beliefs affect employees' approaches to problem-solving.	1	2	3	4	5	6	7
<b>B4 Inclusiveness and Team Cohesion</b>							
The organization values inclusiveness in team decision-making.	1	2	3	4	5	6	7
Diverse teams contribute to creativity and innovation in supply chain activities.	1	2	3	4	5	6	7

Inclusiveness reduces conflicts and misunderstandings in work processes.	1	2	3	4	5	6	7
The company promotes cross-cultural teamwork and mutual respect.	1	2	3	4	5	6	7

### SECTION C: CULTURAL INTEGRATION STRATEGIES (INTERVENING VARIABLE)

Indicate the extent to which you disagree or agree with each statement by checking the appropriate number from 1 to 5, using the following scale:

<i>1 = Strongly Disagree</i>	<i>2 = Disagree</i>						<i>3 = Somewhat Disagree</i>
<i>4 = Agree</i>	<i>5 = Strongly Agree</i>						
<b>C1 Training and Development</b>							
The organization provides cultural awareness and diversity training.	1	2	3	4	5	6	7
Training programs promote cultural competence among supply chain employees.	1	2	3	4	5	6	7
Diversity training helps minimize cultural misunderstandings.	1	2	3	4	5	6	7
<b>C2 Leadership Inclusiveness</b>							
Management encourages open communication across cultural lines.	1	2	3	4	5	6	7
Leaders value input from employees of different cultural backgrounds.	1	2	3	4	5	6	7
Leadership behavior promotes inclusiveness and fairness in decision-making.	1	2	3	4	5	6	7
<b>C3 Policy Implementation</b>							
The company's policies support equal opportunities for culturally diverse employees.	1	2	3	4	5	6	7
Diversity management policies are clearly communicated and enforced.	1	2	3	4	5	6	7
Organizational culture supports cross-cultural integration and collaboration.	1	2	3	4	5	6	7

### SECTION D: SUPPLY CHAIN PERFORMANCE (DEPENDENT VARIABLE)

Indicate the extent to which you disagree or agree with each statement by checking the appropriate number from 1 to 5, using the following scale:

<i>1 = Strongly Disagree</i>	<i>2 = Disagree</i>						<i>3 = Somewhat Disagree</i>
<i>4 = Agree</i>	<i>5 = Strongly Agree</i>						
<b>D1 Efficiency and Coordination</b>							
Our supply chain processes are efficient and well-coordinated.	1	2	3	4	5	6	7

There is smooth collaboration between departments in the supply chain.	1	2	3	4	5	6	7
Cultural diversity enhances workflow efficiency and coordination.	1	2	3	4	5	6	7
<b>D2 Responsiveness and Flexibility</b>							
Cultural diversity enhances the organization's flexibility to market changes.	1	2	3	4	5	6	7
Diverse perspectives help the company respond quickly to supply chain disruptions.	1	2	3	4	5	6	7
The organization's multicultural nature increases adaptability to global demands.	1	2	3	4	5	6	7
<b>D3 Competitiveness</b>							
The company's cultural adaptation contributes to competitive advantage.	1	2	3	4	5	6	7
Cultural diversity improves innovation and service quality.	1	2	3	4	5	6	7
Diversity management practices enhance overall supply chain performance.	1	2	3	4	5	6	7
<b>D4 Risk Management and Resilience</b>							
Integrating cultural perspectives helps reduce risks in supply chain operations.	1	2	3	4	5	6	7
The company effectively manages supply chain challenges arising from diversity.	1	2	3	4	5	6	7
Cultural awareness strengthens resilience in handling supply chain disruptions.	1	2	3	4	5	6	7
<b>Risk Management and Resilience</b>	1	2	3	4	5	6	7

*Thank you.*

*Your participation is highly appreciated.*