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The role of institutional technology management (ITM) in MNCs' international trade resilience and supply chain agility in African emerging markets.

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SCHOLARONE MANUSCRIPTS

Reviewer's comments

Reviewer's Comments	Authors' response
1) Please make sure that the aggregate dimensions in the data structure is consistent with your conceptual framework. Also, make sure that second-order themes are connected well with aggregate dimensions.	The second order themes have now been revised, and they are now connected very well with our aggregate dimensions in the data structure. We have also ensured that our aggregate dimensions in the data structure are consistent with our conceptual framework.
2) Your reference list is full of errors and missing information. Below is just what I could find until letter C: Aborisade, O. P. (2013). Data collection and new technology. the page range is 48–52, not just 48. Adeleye, I., Luiz, J., Muthuri, J., & Amaeshi, K. (2020). Business ethics in Africa: The role of institutional context, social relevance, and development challenges. the citation is incomplete: it is in Journal of Business Ethics, 161(4), 717–729, not just volume 161 without the issue number. Alderson, P., & Morrow, V. (2020). The ethics of research with children and young people: A practical handbook. The entry is incomplete. The 2020 book is the second edition and is published by SAGE Publications Ltd. Baabdullah, A. M., Rana, N. P., Alalwan, A. A., Islam, R., Patil, P., & Dwivedi, Y. K. (2019). Consumer adoption of self-service technologies in the context of the Jordanian banking industry: Examining the moderating role of channel types. The page range should be 286–305, not 286305. Barnard, H., Amaeshi, K., & Vaaler, P. M. (2023). Theorizing international business in Africa: A roadmap. The citation details are wrong. The correct citation is Journal of International Business Policy, 6(4), 389–407 (2023), not volume 6, pages 453–490. Bowden, C., & Galindo-Gonzalez, S. (2015). Interviewing when you're not face-to-face: The use of email interviews in a phenomenological study.	All references have now been modified in line with IMR Harvard style. Thank you so much for these constructive comments. They have really helped us to enhance our paper.

The page range is 79–92, not just 79. Braun, V. (2016). Collecting qualitative data: A practical guide to textual, media and virtual techniques. Cambridge University Press. This entry is wrong/incomplete. The book is an edited volume, not a single-author book: it is edited by Virginia Braun, Victoria Clarke, and Debra Gray, and Cambridge lists the publication date as 2017, not 2016. Brinkmann, S. (2014). 14 Unstructured and Semi-Structured Interviewing. The Oxford handbook of qualitative research, 277. The page range is 277–299, not just 277. Carson, S. J., Devinney, T. M., Dowling, G. R., & John, G. (1999). Understanding institutional designs within marketing value systems. The issue information is off: authoritative records list it as Journal of Marketing, 63, SUPPL., 115–130, rather than 63(4_suppl1). Please check all your references and make sure that they exist and all details are correct.	
3) Use this opportunity to make sure that writing is organic, consistent throughout (i.e., the writing style and the use of terminology), and coherent.	The revised MS has now undergone further language editing and streamlining to enhance readability. Once again, thank you so much for your constructive comments. They are very much appreciated.

The role of institutional technology management (ITM) in MNCs' international trade resilience and supply chain agility in African emerging markets.

Abstract

Purpose: The paper examines the influence of institutional technologies on global supply chain management (SCM) and international marketing efforts of multinational corporations (MNCs) in African emerging markets, with a focus on their impact on international trade resilience. It addresses a four decade long empirical gap, examining the applicability of these institutional technologies to SCM and international marketing of MNCs in the context of the resource-constrained environment of Africa.

Design/methodology/approach: The research employs a qualitative method with an interpretivist approach, conducting thirty in-depth qualitative interviews with mid-and senior-level managers involved in global SCM and international marketing efforts of MNCs drawn from a wide range of sectors in Nigeria. Data analysis utilises an inductive thematic approach, which combines Braun and Clarke's six-step framework and Gioia's suggestions for qualitative rigour.

Findings: The paper reveals institutional voids in the digital business environment, including inadequate social amenities, prevalent informal business practices, challenges navigating complex regulatory environments, and limited access to advanced technological resources. These challenges create disparities between local practices and established standards, resulting in resource constraints and lack of business opportunities. Our findings reveal that, in response, MNCs adopt *'glocalization'* strategies in SCM and international marketing, tailoring technological solutions to local conditions, fostering relationship, and optimisation of resource allocation, contributing to international trade resilience.

Originality/value: This pioneering research explores the interlinkages between institutional technologies, SCM, and international marketing efforts of MNC in an under-researched African context, offering valuable managerial and theoretical implications.

Keywords: Supply chain management, international marketing, institutional technologies, multinational corporations (MNCs), emerging markets.

Paper type: Research Paper.

1. Introduction

Researchers have long examined how deficiencies in institutional environments can shape firms' strategies and outcomes (Meyer and Rowan, 1977; DiMaggio and Powell, 1983). Faulty market-supporting institutions (e.g., regulatory frameworks, contract enforcement mechanisms, financial intermediaries, or information infrastructures) can influence how firms compete and sustain their operations (Doh et al., 2017). Such vacuum in institutional frameworks (AKA institutional voids) raise transaction costs, limit the ability of enterprises to collaborate with partners, and create widespread uncertainty throughout value chains (Peng and Heath, 1996; Ghoul et al., 2017). While institutional voids are evident across developing regions, they are particularly acute in African emerging markets, where regulatory complexity, infrastructural weaknesses, and political volatility exacerbate uncertainty and undermine competitiveness (Amankwah-Amoah et al., 2022; Osabutey and Jackson, 2024).

Regarding the above obstacles posed by institutional voids, institutional theory offers a useful foundation to examine how firms can navigate these barriers. Institutional theory explores how social choices are negotiated, influenced and guided by the institutional environment – the instituted structures, norms, and practices that influence organizations and societies (Hoffman, 1999). This theoretical lens argues that when institutional infrastructures are weak, firms must either compensate for these deficiencies or create substitutes that replicate their governance functions. The mainstream literature on institutional theory examines how firms rely on institutional technologies – those acceptable conventions, material embodiments, rules and establishments that enable firms to navigate those voids in their volatile institutional environment via a facilitated economic coordination (Yu et al., 2025; Allen et al., 2020; Potts et al., 2025). Researchers argue that by filling governance gaps and enabling more efficient coordination of

multinational corporations' (MNCs') activities, institutional technologies act as substitutes for weak institutions (Nakpodia et al., 2024). Consequently, the role of institutional technologies in substituting for missing or unreliable institutions, enabling MNCs to overcome structural barriers in volatile settings has been widely acknowledged (Yu et al., 2025; Allen et al., 2020).

Furthermore, institutional technologies' capacity to foster MNCs' adaptation to their complex institutional environments through enhanced information exchange and improved transparency and coordination of their supply chain management (SCM) activities (Allen et al., 2020; Gligor et al., 2022) has been examined. SCM theory emphasises that competitive advantage arises from the coordination and management of material, information, and financial flows across supply networks (Mentzer et al., 2001). Within supply chain management, institutional technologies function as mechanisms that support such integration, coordination and control (Hartley et al., 2022). By fostering MNCs' capacity to navigate the several inefficient regulatory structures, constrained enforcement mechanisms, and disjointed institutional frameworks in emerging markets (Puffer et al., 2016; Zoogah et al., 2015), institutional technologies have been linked to business development and economic growth (Potts et al., 2025). Regarding MNCs' competitiveness and operational efficiency in the global marketplace, institutional technologies are key to their industrial and technological changes and innovations (Kauppi and Luzzini, 2022), especially, through their SCM activities (Gölgeci and Kuivalainen, 2020).

Moreover, institutional technologies, most notably, block chain technologies, artificial intelligence (AI) applications, internet of things (IoT) and digital platform ecosystems facilitate a decentralized SCM mechanisms and mitigate uncertainty through enhanced market transparency and streamlined operational processes (Allen et al., 2020; Bhattacharya et al., 2022). In addition, block chain technologies also foster blockchain-related public policies on transaction costs,

industrial innovations, economic exchange and associated institutional choices (Manzoor et al., 2025), including supply chain coordination (Lopez-Morales et al., 2023), which minimizes MNCs operational costs (Hakkarainen, 2024) and drives institutional evolution (Hartley et al., 2022). These components of institutional technologies have enabled the creation of protected digital ledgers (Davenport et al., 2020), which facilitate trust, traceability, transparency, improved logistics, collaboration and coordinated activities across the supply chain network (Allen et al., 2020; Gligor et al., 2022). Advancements in institutional technologies have also enabled instantaneous information sharing (Hallikainen et al., 2020) and transparency in tracking and verifying supply chain related transactions (Gligor et al., 2022). Consequently, firm's capacity to gain rich insight into the changing customers' behaviours, supply chain performance, and market trends have improved.

However, the strategic value of institutional technologies depends on how firms manage, integrate, and reconfigure them in response to institutional voids and shifting market pressures (Gligor et al., 2022; Li et al., 2022). Organizational abilities to manage institutional technology act as a dynamic capability in which firms continually integrate and leverage technologies through organizational routines rather than relying on technology adoption alone (Cetindamar et al., 2009). The dynamic capabilities framework (Teece et al., 1997; Teece, 2007) explains this process through sensing opportunities and threats, seizing them through investments and decisions, and reconfiguring resources to sustain advantage (Mele et al., 2024; McAdam et al., 2017), and we extend this framework by showing how these technology-enabled capabilities operate under persistent institutional voids. In line with the resilience theory, once technological and organizational mechanisms are aligned though these dynamic capabilities, resilience capabilities emerge as firms develop the capacity to absorb institutional shocks, adapt their supply chains and

maintain international trade (Ye et al., 2024; Ponomarov and Holcomb, 2009). We therefore conceptualise institutional technology management as dynamic capability that not only supports competitive advantage but also underpins a form of contextual trade resilience in complex African settings (Tukamuhabwa et al., 2017; Ali et al., 2023; Khurana et al., 2022).

Despite the above benefits of institutional technologies, implementing these technologies within the resource-constrained environment of Africa is restricted due to technological incompatibility, limited infrastructure, interoperability challenges, poor regulatory structures, weak enforcement mechanisms, poor institutional frameworks, and socio-cultural acceptance (Das and Drine, 2020). Consequently, MNCs' capacity to respond to volatility in the global market are restricted (Puffer et al., 2016), and which raises questions around Africa's potential as investment destination for foreign MNCs (Getachew et al., 2023). These limitations alongside increasing technological adoption highlights the need for more research on how MNCs develop supply chain agility and international trade resilience via institutional technology management (ITM) in resource-constrained environment of Africa (Amankwah-Amoah et al., 2022; Osabutey and Jackson, 2024). Moreover, there are lack of research examining MNCs' capacity to exploit institutional technologies in response to volatility in the global market and in developing effective customer-centric marketing and SCM strategies in the continent. Although earlier research (Hamisi, 2011) examined the challenges and opportunities of Tanzanian SMEs in adapting supply chain management, the findings ignored the mediating role of institutional technologies. Jia et al. (2018) also examined the emerging markets' capacity to adopt sustainable supply chain management (SSCM), but the crucial role of institutional technologies was overlooked. Grewal et al. (2018) proposed a toolkit for managing the marketing channels of MNCs in foreign markets, while Amusan (2018) examined how African MNCs thrive amidst micro economic forces, supply

chain deficiencies, institutional voids, and regulatory frameworks. Amankwah-Amoah et al. (2022) explored how political networking capabilities and institutional technologies are exploited to shield MNCs intangible assets in the weak institutional environments of Sub-Saharan Africa. Considering the region's dynamic economic landscape and untapped potential Boso et al., (2019) examined the factors affecting African MNCs' internationalisation strategies, their market selection and mode of entry into emerging frontier markets in Africa (EFMA). Despite such a growing body of Africa-focused SCM literature, the role of institutional technologies in fostering MNCs' SCM and international marketing efforts remains largely unexplored. This research fills that void by proposing a framework that shows institutional technologies adoption in African emerging markets as a link between domestic institutional factors, supply chain agility and international trade resilience. This aligns with recent research on institutional technologies as intermediary mechanisms that enable visibility, coordination, and informed action during disturbances (Yu et al., 2025). Focusing on Nigerian MNCs, our paper examines the following research questions:

How do institutional technologies influence global SCM and international marketing efforts of MNCs in African emerging markets?

How does this relationship translate to supply chain agility and international trade resilience?

This study makes several major contributions. Firstly, this study contributes to ongoing theorising around institutional voids by demonstrating how technological innovations help firms replicate governance functions, reduce uncertainty, and build trust where formal institutions are weak, thus enhancing our understanding of how firms navigate institutional voids. Secondly, it

strengthens dynamic capabilities research by demonstrating how MNCs manage technology-enabled capabilities to enhance sensing, seizing, and reconfiguring resources under institutional pressures in a resource-constrained African context, thereby showing how institutional technologies became embedded in dynamic capability processes rather than remaining stand-alone tools. Thirdly, it enriches SCM theory by revealing how institutional technologies facilitate multi-tiered supply chain coordination and governance in fragmented institutional landscapes, and by specifying the mechanisms through which such coordination translates into supply chain agility and international trade resilience. Fourth, it also advances resilience theory by conceptualising a form of 'contextual resilience' in international trade that reveals the interplay between institutional technology management and local knowledge integration thus strengthening coordination and responsiveness across global value chains, linking dynamic capabilities and supply chain resilience in the face of significant institutional volatile environments.

2.0 Literature Review

This section reviews extant literature on institutional technologies' influence on global SCM and international marketing efforts of MNCs. The section also examines how this relationship translates to supply chain agility and international trade resilience, with focus on the emerging market of Africa.

2.1 Institutional Voids and emerging markets (EM)-MNCs' operations

Studies have found that institutional voids constrain firm competitiveness in emerging economies (e.g., Khanna and Palepu, 2010). Defined as those deficiencies in formal regulations, norms, and

enforcement mechanisms that support market transactions and business activities (Webb et al., 2020), institutional voids are barriers to successful EM-MNCs' SCM and international marketing efforts. These voids manifest as lack of (or ineffective) institutional frameworks that would typically facilitate efficient marketing operations (Dieleman et al., 2022). When institutional infrastructures are weak, firms must either suffer from those deficiencies or create a model framework for economic coordination (North, 1990). Emerging markets, particularly Africa, exhibit pronounced institutional voids characterized by insufficient regulatory frameworks, underdeveloped legal systems, ineffective market intermediaries, and pervasive information asymmetries (Puffer et al., 2016).

Researchers have found that institutional void significantly impact transaction costs and market efficiency (Dieleman et al., 2022), especially, in emerging economies due to the absence of specialized intermediaries, regulatory systems, and contract-enforcing mechanisms (Kshetri, 2021). Recent studies also found that the African emerging markets particularly face severe institutional void due to regulatory complexities, inconsistent policies, poor legislation, infrastructural deficiencies, resource constraints and political instability (Amankwah-Amoah et al., 2022; Osabutey and Jackson, 2024). These voids have been linked to poor business decision-making (Hamisi, 2011) and ineffective SCM and international marketing activities by EM-MNCs (Koch, 2022). Consequently, an increase in operational costs and risks (Saha et al., 2023).

Furthermore, institutional voids fundamentally limit the strategic decisions of MNCs operating in emerging markets by restricting their access to reliable market information, enforcement mechanisms, and resource flows. This undermines firms' ability to generate and act on customer insights, leaving market orientation and entrepreneurial responsiveness heavily dependent on

informal networks (Webb et al., 2011; Dekel-Dachs et al., 2021). Where regulatory systems and market intermediaries are underdeveloped, MNCs must rely on alternative institutional arrangements such as local partnerships, social networks, and digital platforms to reduce uncertainty and create legitimacy (Carson et al., 1999; Liedong et al., 2020). These informal substitutes serve as crucial mechanisms for overcoming information asymmetries and institutional distance, allowing firms to sustain customer engagement despite gaps in formal infrastructure. Accordingly, institutional voids do not merely act as background conditions; they actively reconfigure the design of marketing systems, compelling MNCs to reorient strategies around flexibility, relational trust, and adaptive institutional arrangements.

Moreover, the effects of institutional voids are equally profound across global supply chains. Empirical studies of base-of-the-pyramid and African markets demonstrate that institutional voids disrupt every stage of the value chain—from raw material sourcing, labour mobilization to distribution and contract enforcement (Parmigiani and Rivera-Santos, 2015; Brix-Asala and Seuring, 2020). For MNCs, these voids increase transaction costs, reduce transparency, and heighten the risk of opportunism, forcing firms to develop innovative governance mechanisms and supplier development practices that substitute for absent formal institutions. Supplier development, for example, has emerged as a vital strategy for bridging voids by building local capacity, strengthening coordination, and creating hybrid governance arrangements that blend formal and informal mechanisms (Brix-Asala and Seuring, 2020). This evidence underscores that institutional voids in supply chains are not peripheral challenges but central determinants of how MNCs design sourcing, contracting, and coordination structures. To maintain a global standard and create a competitive advantage through innovative solutions, recent research suggests adopting institutional technologies as adaptive strategy (Koch, 2022). Institutional technologies have been

linked to efficiency, transparency, flexibility, sustainability, improved communication and increased productivity in global SCM and international marketing activities (Bryan Jean et al., 2008; Katsikeas et al., 2020). In the broader context of African emerging markets, institutional technologies such as blockchain, big data, and digital platforms hold transformative potential, as they can embed trust, reduce asymmetries, and enhance coordination in environments where institutional deficiencies would otherwise undermine both marketing effectiveness and supply chain resilience (Manzoor et al., 2025).

In addition, due to severe institutional deficiency in the African emerging market, we draw on resilience theory to frame how MNCs in the continent absorb, adapt to, and recover from institutional disruptions while maintaining core functions. Proponents of the resilience theory explains the processes and capabilities that facilitate firm's capacity to anticipate shocks, reconfigure resources, and continue operating under conditions of volatility (Holling, 1973; Tukamuhabwa et al., 2017; Golgeci et al., 2021). Rather than treating resilience as a generic outcome, we use resilience theory to specify how institutional technologies and dynamic capabilities jointly underpin firms' ability to maintain international trade flows in the face of consistent market challenges.

2.2 The role of Institutional Technologies in filling institutional gaps in EM-MNCs' operations

Institutional technologies refer to digital innovations and technological solutions that help organizations navigate or bridge institutional voids (Allen et al., 2020; Gölgeci and Kuivalainen,

2020). These technologies encompass a diverse range of digital innovations including blockchain, AI, IoT, cloud computing, big data analytics, and mobile payment systems (Gligor et al., 2022; Hallikainen et al., 2020). Their classification as "institutional" is due to their capabilities to either substitute for or enhance ineffective formal institutions (Hodgson, 2025). For instance, due to their capacity to facilitate coordination and governance in complex market environments (Allen et al., 2020), Walmart has deployed their blockchain in its Canadian supply chain, which has enhanced traceability of goods, reduced transaction frictions with multiple suppliers, and ensured compliance with safety and regulatory standards (Lacity and Van Hoek, 2018). Therefore, institutional technologies are strategic resources that enable MNCs to develop distinctive marketing capabilities, despite institutional constraints (Gölgeci and Kuivalainen, 2020). For instance, by creating immutable transparent records, blockchain technology reduces the need for trusted marketing intermediaries, which is crucial, especially in environments where trust is limited (Allen et al., 2020).

Furthermore, big data analytics and AI facilitate information collection, processing, and interpretation even without extensive formal information channels (Davenport et al., 2020). Digital platforms also enable direct buyer-seller connections, bypassing inadequate physical infrastructure and market intermediaries, while regulatory technology (RegTech) solutions help to navigate complex and evolving regulatory landscapes **(**Micheler and Whaley, 2020**).** Recent research also shows that institutional technologies can act as substitutes for weak institutions by filling governance gaps and enabling more efficient coordination (Allen et al., 2020; Nakpodia et al., 2024).

2.2.1. Institutional technologies as dynamic resources in MNCs' operations

Although the adoption of institutional technologies can foster innovation, facilitate adaptation to changing international market needs, and build competitive advantage for MNCs, emerging market MNCs may struggle to adapt due to corruption, lack of resources and unreliable infrastructure (Kshetri, 2021). Consequently, academic theorising on institutional technologies examines the role of institutional technology management (ITM). ITM highlights a strategic organizational ability to systematically govern, deploy, and reconfigure digital technologies to address institutional voids and sustain competitive advantage in volatile environments (Cetindamar et al., 2009). Specifically, rather than treating technologies such as blockchain, artificial intelligence, or big data analytics as isolated tools, ITM emphasises the managerial and organizational processes through which firms identify, integrate, and leverage these technologies to respond to institutional deficiencies (Tunisini et al., 2023). This distinction is crucial in emerging markets, where the absence of functioning institutions means that technology adoption alone is insufficient; organizations must instead systematically develop the capability to orchestrate technologies in ways that substitute for, complement, or transform weak institutional arrangements (Liu et al., 2017).

The dynamic capabilities perspective (Teece et al., 1997; Teece, 2007) provides a useful theoretical lens for conceptualizing ITM as an organizational capability rather than a static resource. As Cetindamar et al. (2009) argue, technology management functions as a dynamic capability insofar as it enables organizations to reconfigure and transform existing technological competencies in response to changing environmental conditions. For MNCs operating in African emerging markets where institutional volatility is the norm, this perspective is particularly relevant (Ochie et al., 2022), as firms must be able to not only have to acquire technologies but must also

continuously adapt their technology portfolios, managerial routines, and implementation approaches to cope with regulatory uncertainty, infrastructural gaps, and market turbulence. This perspective aligns with the theorizing on dynamic capabilities – a firm's ability to maximize both internal and external competences/resources to adapt to and shape rapidly in its changing business environments (Teece et al., 1997; Teece, 2007). This highlights the role of institutional technologies in enabling rapid responses to shifting customer demands and institutional conditions (Kalaignanam et al., 2021; Elo and Silva, 2022).

Furthermore, the dynamic capabilities theory illuminates the processes through which firms develop and reconfigure internal and external competencies to address their rapidly changing environments – essential in the volatile institutional contexts of emerging markets (Teece, 2007). For instance, MNCs draw on institutional technologies such as cloud computing, AI, and advanced analytics which enable real-time decision-making and rapid reconfiguration of supply chain operations in response to institutional disruptions, including regulatory changes, infrastructure failures, or political instability (Ahi et al., 2022). This reduces SCM monitoring costs and mitigating risks associated with opportunistic behaviour by supply chain partners (Feng et al., 2024; Klassen et al., 2023). Likewise, previous studies also found supply chain coordination as a critical mediating factor linking institutional technology implementation and organizational resilience (Li et al., 2022), indicating that technologies alone are insufficient; they must be leveraged to enhance coordination among supply chain partners to achieve resilience against disruptions while building a competitive advantage.

Additionally, building on Barney's (1991) resource-based-view (RBV) – which posits that competitive advantage stems from valuable, rare, inimitable, and non-substitutable capabilities –

researchers (e.g., Thoumrungroje and Racela, 2022; Hughes and Chandy, 2021) provide valuable frameworks for analysing how institutional technologies enhance international marketing capabilities in emerging markets. In this context, institutional technologies function as strategic resources enabling MNCs to develop distinctive marketing capabilities, despite institutional constraints, by helping them to develop market agility (the ability to rapidly iterate between market sensing and marketing decision-making) (Kalaignanam et al., 2021). In emerging markets, due to institutional flux and market volatility, marketing agility is required to tackle business failure. Institutional technologies enhance marketing agility through multiple mechanisms, such as advanced analytics and AI-driven market research tools which allow MNCs to gather and analyze customer insights even without extensive formal market research infrastructure (Hallikainen et al., 2020). Additionally, digital platforms enable MNCs to establish market presence despite physical infrastructure limitations and thus facilitate customer reach through mobile and online channels (Eduardsen et al., 2023).

However, the effectiveness of institutional technologies in enhancing marketing agility depends significantly on MNCs' capacity to interpret and respond to the market insights generated by these technologies by effectively exploiting institutional technologies to aid swift strategic adjustments needed to exploit the range of opportunities in emerging market (Tolstoy et al., 2022). These illustrations provide deeper insights on how institutional technologies foster MNCs capacity to navigate market volatility effectively, thus improving marketing agility and responsiveness, while offering valuable insights into previously neglected customer segments in difficult institutional environments (Hammerschlag et al., 2020; Li et al., 2022).

In conclusion, dynamic capabilities in ITM can be observed through three interrelated processes: sensing, seizing, and reconfiguring (Ghosh et al., 2022; McAdam et al., 2017). First, firms must sense both institutional gaps and technological opportunities by regularly scanning their environments for weaknesses in regulation, contract enforcement, or infrastructure, and identifying digital tools that can help fill these gaps. Second, they must seize these opportunities by selecting and deploying appropriate technological solutions that are strategically aligned with both global objectives and local institutional realities. Finally, they must reconfigure technological and organizational resources on an ongoing basis, ensuring that ITM practices remain responsive to evolving institutional constraints and competitive dynamics. In practice, this requires developing organizational routines essential in fostering MNCs in Africa to swiftly identify institutional deficiencies, experiment with digital solutions, and adapt implementations in response to shifts in institutional conditions (Andrews and Luiz, 2025). Finally, despite the benefits of institutional technologies and the opportunities they present, their associated challenges require businesses to rethink how they collaborate with stakeholders (Gligor et al., 2022; Davenport et al., 2020), as effective ITM also depends on collaborative capabilities. Consequently, MNCs must nurture their relational collaboration capabilities that enable knowledge sharing, co-development of technologies, and coordinated implementation across supply chain and marketing networks (Pundziene and Geryba, 2023). This collaborative dimension ensures that technologies are embedded within broader ecosystems of suppliers, partners, and regulators, thereby amplifying their institutional impact and ensuring that solutions are both scalable and responsive to local institutional constraints and thus ensuring both long-term resilience and sustained competitive advantage.

A recap of the literature review as presented in Table 1 below provides a comprehensive overview of key studies linking institutional technologies, global SCM, and international marketing interventions in emerging markets. The table below categorizes the key themes in the literature review section into five thematic areas: Institutional Voids and Institutional technologies, Institutional Technologies and SCM, Institutional Technologies and Marketing, Digital Infrastructure and Policy, and Resilience and Adaptability. Table 1 below is a synthesis of existing research which is the foundation for our conceptual model (shown in figure 2).

Table 1: *Review of Key Studies on Institutional Technologies in Tackling Voids in Emerging Markets*

Topic	Study	Context and focus	Method	Key findings
Institutional Voids and Institutional Technologies	**Khanna and Palepu (2010)**	**Institutional voids in emerging markets and strategies for navigating them**	**Conceptual/theoretical framework**	**Identifies five types of institutional voids—product, labor, capital markets, regulatory systems, and contract enforcement—and proposes strategies such as internal development and partnerships to overcome them.**
	North (1990)	**Institutional theory and economic performance**	**Conceptual/theoretical framework**	**Differentiates between formal (laws, regulations) and informal**

				(norms, values) institutions and explains how they shape transaction costs and market efficiency.
	Doh et al., (2017)	**International business context focusing on multinational corporations' strategies in emerging markets with institutional deficiencies**	**Systematic literature review**	**Identifies four strategic responses to institutional voids: internalization, substitution, borrowing, and signaling. Finds that higher ownership concentration increases transaction costs as a dominant response mechanism.**
	Allen et al., (2020)	**Innovation policy context focusing on blockchain technology as institutional technology affecting economic governance and coordination**	**Conceptual/theoretical framework**	**Argues that blockchain facilitates novel institutional innovations beyond traditional economic frameworks, enabling new forms of economic governance.**
Institutional Technologies and SCM	**Qader et al., (2022)**	**Manufacturing and supply chain context in emerging**	**Systematic literature review**	**Highlights how digital technologies support risk**

		markets focusing on digital transformation, resilience building, and performance enhancement through Industry 4.0 technologies		**mitigation, increase supply chain visibility, and strengthen coordination throughout the supply network.**
	Ali et al., (2022)	**Global food value chains during COVID-19 pandemic focusing on resilience strategies, supply chain adaptations, and crisis response mechanisms**	**Mixed-methods approach combining quantitative data and qualitative case studies**	**Identifies resilience strategies including diversification, digitalization, and localized sourcing to enhance preparedness for future crises.**
	The current paper (2025)	**Institutional technologies in African MNCs' supply chains**	**Qualitative approach using semi-structured interviews**	**Reveals that African MNCs apply "glocalization" strategies, adapting technological tools to local constraints while maintaining global standards.**
Institutional Technologies and Marketing	**Kalaignanam et al. (2021)**	**Marketing agility concept and antecedents**	**Literature review and qualitative interviews**	**Defines marketing agility as iterative market sensing and execution. Identifies drivers at**

				organizational, leadership, team, and employee levels.
	Fleury et al., (2024)	**EMNEs (Brazilian multinationals) and their subsidiaries in digital transformation**	**Quantitative survey-based research**	**Demonstrates that EMNEs achieve competitive advantage through digital maturity and integration of foreign subsidiaries into broader value chains.**
	Gaglio et al., (2022)	**How digital transformation affects innovation processes and organizational capabilities**	**Longitudinal quantitative analysis**	**Finds that digital transformation significantly boosts innovation capacity and performance in South African SMEs.**
	Mwansa et al., (2025)	**Digital exclusion challenges, socio-economic disparities, and infrastructure inadequacies in rural areas**	**Quantitative survey-based research**	**Identifies cost, lack of connectivity, and geographic isolation as major exclusion factors, with affordability being the most critical.**
	Amankwah-Amoah et al. (2022)	**Political networking capabilities of MNCs in Sub-Saharan Africa**	**Qualitative research**	**Shows that political networking acts as a buffer in weak institutional environments,**

				complementing technological strategies.
Digital Infrastructure and Policy	**Ozili (2025)**	**Digital access and service delivery in global digital infrastructure development**	**Conceptual/theoretical framework**	**Emphasizes that digital public infrastructure facilitates secure, open digital networks but also raises challenges like cybersecurity risks, interoperability issues, and exclusion.**
	Ochinanwata et al., (2023)	**Digital platform ecosystem and role of institutional factors**	**Qualitative case study approach using multiple cases**	**Demonstrates that institutional quality and regulatory support are key determinants of platform innovation, sustainability, and ecosystem performance.**
Resilience and Adaptability	**Nakpodia et al., (2024)**	**Digital technology adoption for addressing societal challenges in weak institutional contexts**	**Qualitative approach using semi-structured interviews**	**Reveals that digital technologies enable collaborative engagement and stakeholder connectivity, strengthening organizational resilience during crises.**

	Barnard et al., (2023)	**Theorizing international business in Africa under extreme conditions and alternative paradigms**	**Conceptual/theoretical framework**	**Argues that traditional international business theories require adaptation for African institutional and socio-economic realities. African contexts offer opportunities for theory-building under extreme conditions.**
	Ali et al., (2023)	**Supply chain resilience development through knowledge management and risk management culture**	**Quantitative survey-based research**	**Finds that exposure to supply chain risks activates knowledge management routines, which foster a culture of risk management and enhance supply chain resilience.**

Source: Authors' own.

Research Gaps:

Although the literature examines institutional technologies' response to institutional voids, empirical studies have focused mainly on the developed economies' contexts (Parthiban et al.,

2020). Consequently, our understanding of how EM-MNCs might strategically deploy institutional technologies to proactively address institutional voids within the emerging markets, especially in Africa's distinctive socio-economic environment is limited. Furthermore, despite growing empirical evidence on how institutional technologies can facilitate organizational resilience in multinational contexts, research focusing on emerging economies, particularly on the resource-constrained African markets where institutional and technological infrastructures differ substantially from developed economies is limited (Gligor *et al.,* 2022). Therefore, a renewed call for more research on how institutional technologies can be deployed to address institutional voids through transparent, streamlined and coordinated SCM and international marketing activities which reduce transaction costs across fragmented institutional settings (Allen *et al.,* 2020; Gligor *et al.,* 2022). Moreover, the marketing agility theory proposes that adaptive technological solutions reinforce organizations' capacity to respond rapidly to evolving customers' preference and institutional contexts through strategic flexibility and international marketing responsiveness in volatile environments (Kalaignanam *et al.,* 2021; Golgeci and Gligor, 2017). Yet, the extant marketing agility literature focuses mostly on Asia and the developed economies. The current paper is positioned to address these gaps.

3. Research methodology

A qualitative method with an exploratory design was adopted alongside an interpretivist philosophical stance to examine the complex relationship between institutional technologies, global supply chain management, international marketing activities, and their impact on supply chain agility and international trade resilience (Saunders *et al.*, 2019; Sinkovics *et al.*, 2008). Given the exploratory nature of our research questions, this qualitative approach was deemed most

suitable for uncovering nuanced insights into the context-specific phenomena under study (Saunders *et al.*, 2019).

While this study focuses on MNCs operating in Nigeria, many emerging economies exhibit similar institutional voids, such as weak regulatory frameworks, underdeveloped infrastructure, and limited technological capacity (Khanna and Palepu, 2010). This theoretical similarity suggests that findings from Nigeria could be relevant for other developing regions facing comparable challenges, such as Latin America, Southeast Asia, and other parts of Africa. However, it is important to clarify that this study does not claim statistical generalisability; rather, it offers theoretical generalisation (Yin, 2009). Similar approaches and methodological framework have been used in prior empirical studies on emerging market business strategies and institutional adaptation (Meyer and Peng, 2016).

Using a combination of convenience, purposive, and snowballing sampling (Adeleye *et al.*, 2020; Patton, 2014), we identified an initial sample of 50 MNC subsidiaries in Nigeria, spanning multiple sectors. We opted for purposive sampling to target MNCs who consented to provide rich information relevant to our research questions, complemented by convenience (and snowballing) sampling through professional networks to gain access to a wider range of willing participants, which also ensured diversity in our interview responses. Each selected firm is a multinational enterprise operating in Nigeria with active supply chain and marketing functions, and within each firm we sought a mid-or senior-level manager knowledgeable about these operations. To ensure diversity, participants were drawn from industries such as Banking, Electronics, Food & Beverage, Biotechnology, Real Estate, Poultry Farming, Healthcare, and Telecommunications. The firms' founding years range from 1894 to 2018, allowing comparisons between long-established firms and newer market entrants. Interviewee demographics include 9 female and 21 male respondents,

aged 36 to 65 years, with work experience spanning 5 to 24 years. Of the 43 companies that agreed to participate, we conducted in-depth interviews until no new themes emerged; this point of data saturation was reached after 30 interviews. Thus, the final sample comprised 30 mid- and senior-level managers involved in SCM and international marketing operations within their respective MNCs.

3.1 Data Collection

Semi-structured interviews were conducted due to their flexibility and capacity to elicit detailed responses while maintaining a consistent structure (Brinkmann, 2014). Interview questions were shared online beforehand to enhance data collection accessibility and improve response quality (Bowden and Galindo-Gonzalez, 2015; Braun *et al.,* 2017; Lobe *et al.*, 2020; Ratislavová and Ratislav, 2014). Data collection occurred from March to June 2024, with each interview lasting approximately 40 minutes. The interview guide, based on the research questions and existing literature (Castillo-Montoya, 2016; Kallio *et al.*, 2016), featured open-ended questions to encourage descriptive responses (Creswell and Poth, 2016). In developing the guide, we drew upon insights from literature on institutional theory and emerging market business challenges, ensuring that our questions cover key themes such as institutional voids, institutional technology adoption, and adaption strategies. The final guide included a set of broad, open-ended questions designed to elicit detailed narratives. For example, we asked the business manager how the local institutional environment in Nigeria affects their supply chain processes (Q12, Q10). We also explored the role of digital technologies in marketing and logistics (Q5, Q6, Q7). Furthermore, we asked managers to reflect on how the ethos and values of parent companies or overseas customers shape their operations and whether local cultural mindsets influence the way they conduct business (Q14, Q13). Finally, we examined how businesses respond to disruptions while maintaining resilience

(Q11, Q10). The complete list of the interview questions is provided in Appendix A. Participants were encouraged to take breaks during the interviews to mitigate fatigue (Aborisade, 2013). Ethical considerations included obtaining informed consent, ensuring data security and anonymity (Carter *et al.*, 2021), and emphasising voluntary participation and withdrawal (Saunders *et al.*, 2019).

All participants were adults from non-vulnerable groups (Alderson and Morrow, 2020) and represented diverse sectors including Fashion, Agro products, Beverage, Banking, Fast-Moving Consumer Goods (FMCG), Healthcare, Food/Pastry, Real Estate, Education, Transportation and General Merchandise, and Diversified Conglomerate. This diversity in sector and role of the respondents (as shown in table 2 below) provide a broad range of insights. Despite differences across industries, the core themes identified were similar across the data sets, suggesting that the challenges and strategies we uncovered are broadly applicable rather than industry specific.

Table 2. Participants information

S/N	Gender	Age	Role	Years of relevant experience	Industry/Sector	Year Founded
1	M	57	Logistics Manager	19	Beauty and Personal Care	2001
2	M	56	Inventory Manager	10	Banking	1949
3	M	42	Demand Planner	5	Electronics	2010
4	F	41	Supply Chain Coordinator	7	Biotechnology	2015
5	M	53	International Distribution Manager	13	Electronics	1987
6	F	52	Production Manager	11	Footwear	2013

7	F	51	Purchasing Manager	9	Telecommunications	2010
8	M	50	Warehouse Manager	6	Food and Beverage	1960
9	M	49	Sourcing Manager	18	Banking	1980
10	F	37	International Trade Manager	12	Banking	1894
11	F	36	Supply Chain Analyst	8	Logistics	2005
12	F	63	Supply Chain Director	20	Banking	1990
13	M	62	Operations Manager	11	Forestry	2012
14	M	61	Procurement Manager	8	Poultry Farming	2016
15	M	60	Logistics Manager	7	Import and Distribution	2012
16	F	59	International Demand Planner	5	Fashion	2014
17	M	58	Warehouse Manager	8	Agroproducts	2013
18	M	39	Manufacturing Manager	23	Beverage	1960
19	F	38	Transport Manager	10	Transportation	2007
20	M	48	Operations Manager	9	Banking	1990
21	F	47	Supply Chain Manager	12	FMCG	2009
22	M	46	Sourcing Manager	14	Healthcare	2010
23	M	45	Supply Chain Analyst	9	Food/Pastry	2010
24	M	44	Inventory Manager	7	Real Estate	2016

25	F	43	Operations Manager	24	Education	2000
26	F	55	Category Manager	5	Transportation	2006
27	M	54	Supply Chain Coordinator	6	Food/Pastry	2018
28	M	40	Demand Planner	8	Real Estate	2016
29	M	65	Sourcing Manager	21	Diversified Conglomerate	1930
30	M	64	Logistics Analyst	18	Transportation	2006

Source: Authors (2025)

3.2 Data analysis

Our data analysis followed an inductive thematic approach, combining Braun and Clarke's (2006, 2019) six-step framework in thematic analysis and Gioia *et al.*'s (2013) recommendations on integrating qualitative rigour. This combined approach was adopted to ensure a rigorous analysis: Braun and Clarke's framework provided a clear step-by-step process for theme development while Gioia's method offered a structured way to organise first-order concepts and second-order themes enhancing transparency in linking the data to emerging themes. We began with the data familiarisation step, uploading interview transcripts into NVivo 14 software and thoroughly reviewing them for understanding and preliminary interpretation. To enhance reliability, we employed an intercoder reliability approach, where two researchers independently reviewed subsets of the transcripts and compared their interpretations (O'Connor and Joffe, 2020). Any differences in coding and thematic identification were discussed to reach a consensus on initial thoughts. This method helps to mitigate individual biases, ensuring consistency and validity in qualitative data analysis (O'Connor and Joffe, 2020). By engaging multiple coders, we improved

the credibility and dependability of the findings (Armstrong et al., 1997). Initial codes were generated, aligned with the second step, using open coding (Strauss and Corbin, 1998), resulting in *1st order concepts* (Gioia *et al.*, 2010). This approach allowed for original organisation and visualisation of the emerging patterns within the data. Braun and Clarke's third step – *searching for themes* – involved identifying how codes can be grouped into themes. Adopting axial coding (Strauss and Corbin, 1998) we assigned tentative thematic names to our subgroup of codes. This resulted in generating *2nd order themes, establishing the link between* the 1st order concepts and our research questions. We deemed a theme to be significant if it recurred across multiple interviews or captured an essential aspect of the phenomenon as expressed by participants. We continued iteratively refining the coding and themes until we observed theoretical saturation- i.e., no new themes emerged from additional data, indicating that our dataset provided a sufficiently rich and multifaceted representation of the issues under study. These themes were reviewed (the fourth step) and refined (the fifth step), leading to the identification of aggregate dimensions that tied the themes together for meaning making (Gioia et al., 2013). Throughout this process, we adhered to Braun and Clarke's framework, moving from initial coding to theme development and refinement. The final step involved report writing, with the results summarised in figure 1 below. Throughout the analysis, we intermittently consulted relevant literature to inform our interpretation of the data. While initial coding was data-driven, in the later stages of theme refinement we integrated existing theories (e.g., institutional theory and institutional voids literature) as a lens to contextualise and validate our findings. This integration of literature helped to ground our emerging model within the broader scholarly discourse without imposing preconceived frameworks too early in the analysis (Bowen, 2009).

4. Findings

The findings highlight how institutional contexts (mainly, institutional technologies) shape MNCs' global supply chains management and international marketing efforts in emerging economies, and how this translates to international trade resilience. By using three themes (*how institutional and local contexts shape MNC's global SCM and international marketing efforts, the mediating role of digital business environment, and how this translates to international trade resilience*), the maximum extraction from data was achieved.

4.1 How institutional and local contexts shape MNC's SCM and international marketing efforts

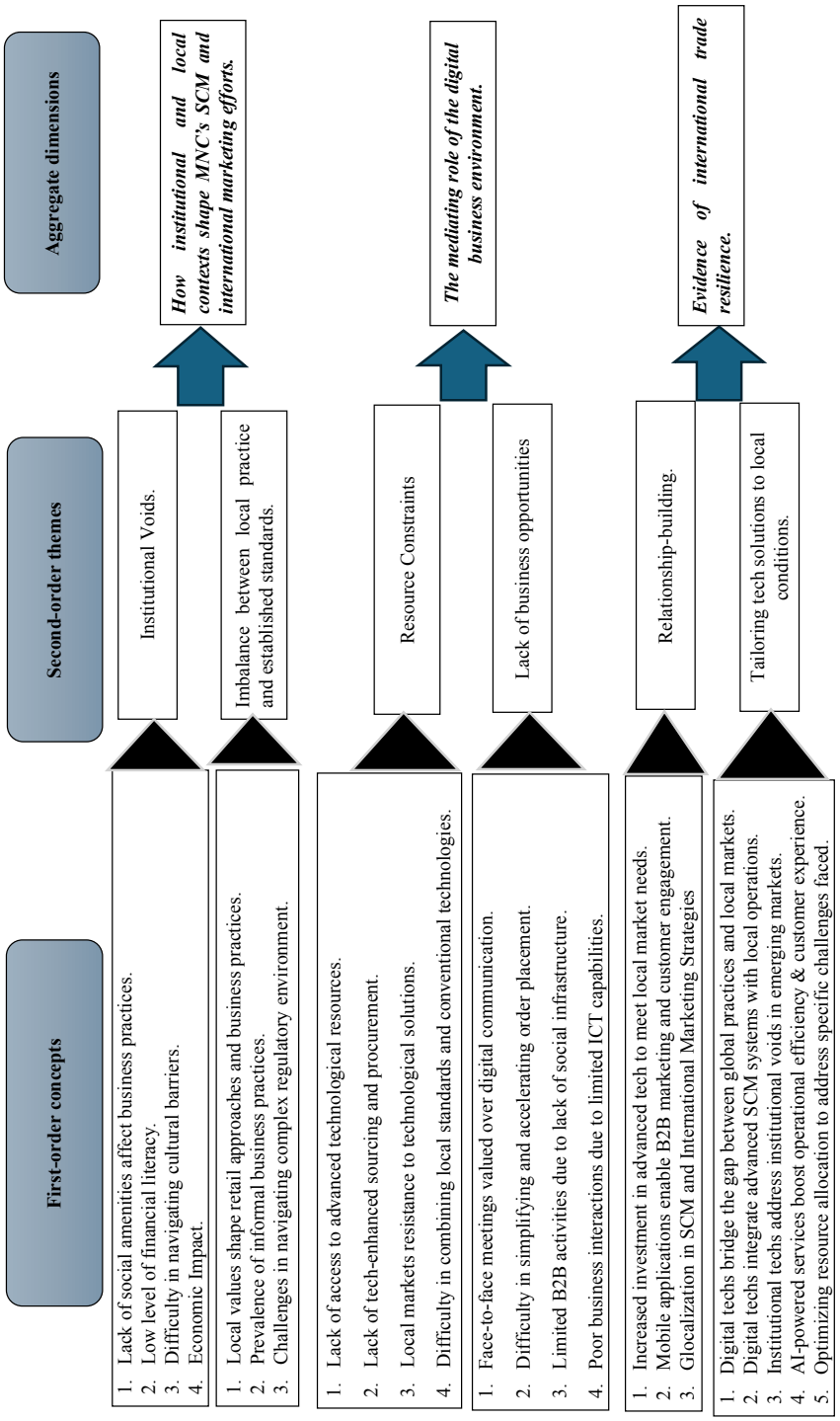
This theme examines the impact of synchronising MNCs' global supply chain and marketing strategies with the cultural norms and values of the local community. First, participants highlight both opportunities and challenges posed by the local values/mindsets and institutional contexts:

> *"… local cultural values and mindsets significantly influence how we operate… People often view banking as a social activity and prefer face-to-face interactions... This cultural preference has influenced our branch designs… and the way we train our customer-facing employees"* (participant 2).

The above quote illustrates the impact of cultural preferences on MNC's operational decisions, aligning with studies stressing cultural adaptability for MNCs' success in emerging markets (Leonavičienė and Burinskienė, 2022). Recent studies have also found that the cultural milieu of emerging markets poses challenges for MNCs in managing their global supply chains and international marketing efforts (Berraies, 2020; Gupta and Gupta, 2019). The above quotes highlight the need for *glocalization* of MNCs operations to align with local demands. This is evidenced through facilitated contextual alignment between global practice and local customers' needs, via adaptability in firm's operations and systems.

Global MNC Supply Chains and Marketing Efforts in Emerging Economies

Figure 1: Data Structure



Furthermore, the 'communities' sense of entitlement' culture and coupled with gaps in infrastructure development, lack of job opportunities, or social programmes – presents unique challenges to MNCs in emerging markets (Idemudia and Osayande, 2021), as explained by one of our participants:

> *"...For instance, we've had situations where local communities expect us to provide jobs or infrastructure development beyond our core business activities"* (participant 18).

This above quote highlights MNCs' complex expectations from host communities with limited government support. Yet, adapting to local cultural events and religious festivals can be challenging, just as one participant highlighted:

> *"Our local environment…impacts our inventory management and sales cycles. ...local religious and cultural festivals create demand patterns that differ from our global trends"* (participant 16).

While the above challenge aligns with research emphasising the importance of understanding local cultural calendars for successful inventory management (Gebisa and Ram, 2021; Manhart *et al.*, 2020), cultural dynamics also present opportunities for a hybrid approach, just as one participant articulated:

> *"...Our ability to adjust to the changing business environment, strike a balance between local insights and global norms… has been the foundation of our success"* (participant 24).

This opportunity highlighted above derives from using the "glocal" strategies in navigating the complex landscape of emerging markets (Buckley and Tian, 2017; Meyer and Peng, 2016; Verbeke and Fariborzi, 2019). In addition, implementing a community-centric business model can present opportunities for MNCs, just as one participant highlighted:

> *"There's a strong emphasis on community in Nigerian culture… This not only aligns with cultural expectations but also helps build strong relationships with our stakeholders*" (participant 27).

Participants 27 opined that this approach *"...can enhance MNCs' acceptability in the community"*. Yet, more empirical evidence emerged from the interview data, highlighting the importance of developing culturally adaptable marketing strategies as crucial for MNCs' success. A participant explained:

> *"... we've adapted our marketing strategies to resonate with local values, emphasising community, family, and long-term investment rather than just luxury or modernity"* (participant 24).

This section has examined the impact of customising marketing techniques and communications to correspond with a host community's cultural values, norms, and preferences (Özsomer *et al.*, 2023; Shen *et al.*, 2020). A key insight identified in our data is the importance of recognising and addressing the overlap between new technologies and local needs, which is the foundation for successful MNCs' global SCM and international marketing efforts. This section has uncovered that through their integrated strategic capabilities, MNCs demonstrate agility both in the way they respond to market volatility as well as cultural demands. This section also justifies how this translates to international marketing responsiveness. The next set of quotes examine the mediating role of the digital business environment in this context.

4.2 The mediating role of the digital business environment

This section examines the link between the digital business environment, institutional voids, institutional technologies, global SCM and international marketing efforts of MNCs in emerging markets. Specifically, participants highlighted major challenges, including infrastructure deficiencies, regulatory complexities, economic and market volatility, unreliable power supply and poor communication systems:

> *"...Bad road conditions… result in transportation disruptions of raw materials… These delays…escalate transportation expenses…disturb our manufacturing timetables, impacting overall effectiveness and consumer contentment"* (Participant 8).
> *"Our drivers are often attacked by hoodlums… This puts our delivery staff at risk, limits our business operations and affects our relationships with our clients" (*Participant 5*).*

The above comment aligns with recent studies (Holguín-Veras *et al.*, 2020; Koch, 2022) which highlight how poor transportation infrastructure disrupts supply chains and increases operational costs. Apart from transportation challenges, other institutional voids that limits MNCs operations in emerging markets are regulatory challenges:

> *"... we must adhere to both local rules and international compliance standards… The …situation ... hampers the speed of decision-making and raises the expenses associated with adhering to regulations"* (Participant 26).

The above quote underscores the amount of pressure that MNCs face in complying with local and global regulatory standards. This also has both economic and market implications, as a participant elaborated that operating in a very fragile and volatile financial system creates additional financial uncertainty for emerging market MNCs, unlike their counterparts in advanced economies:

> *"Fluctuations in (Nigeria's) foreign exchange rates have impacted our costs for imported materials and equipment…" (Participant 24).*

Furthermore, another persistent challenge is inadequate power supply and unreliable communication system. Participants explained that:

> *"The inconsistent power supply affects our warehousing and cold chain management, leading us to …explore renewable energy solutions"* (Participant 21).
> *"As you know, it is not possible to run a successful food and pastry business without a steady and reliable power supply. But unfortunately, the power supply in Nigeria has been a big issue" (*Participant 27*).*
> *"Many times, we face difficulty tracking our drivers, especially, when they are in certain areas with limited mobile network coverage. This creates panic and anxiety, that sometimes we do involve the police to ensure that our delivery staff are safe" (*Participant 15*).*

The quote illustrates how unreliable power and poor communication infrastructure negatively affect MNCs' operations, especially in the digital age (Garrone *et al.*, 2019; Koch, 2022; Abdullahi *et al.*, 2019). However, MNCs are increasingly devising innovative approaches to tackling these obstacles, just as participants highlighted:

> *"...to address the power supply problem, we have implemented the installation of solar panels and backup generators… ensuring uninterrupted production is achieved"* (Participant 23).
> *"We spend huge amount of money on generators and diesel to ensure an uninterrupted supply of electricity. This adds to our running cost and puts additional pressure on our business operation"* (Participant 23).

The comment demonstrates organisational efforts to ensuring operational stability while pursuing business goals. Another adaptation strategy is relationship-building with local regulatory bodies, as emphasised in our next quote:

> *"We've…invested in building…relationships with local regulatory bodies and industry associations, which helps us to navigate compliance issues more smoothly"* (Participant 16).

These proactive approaches align with research (e.g., De Villa *et al.*, 2019) which emphasises the importance of anticipating policy changes and understanding interest group responses. This enhances sensitivity to stakeholders' interest, by diversifying technological investments and supplier base:

> *"For the supply chain issues, we've diversified our supplier base and established multiple distribution routes to mitigate the impact of infrastructure problems…"* (Participant 23).

This strategy enhances supply chain flexibility and competitiveness, which also aligns with studies (Cantele *et al.*, 2023; Gligor *et al.*, 2020) emphasising its significance. Finally, MNCs invest in advanced logistics management systems. This is elaborated below:

> *"We've invested in developing our own logistics management system that integrates GPS tracking and real-time route optimisation, allowing us to efficiently manage our fleet and partner networks"* (Participant 21).

Existing research has examined how digital supply chain technologies can enhance supply chain agility and international marketing resilience, fostering operational efficiency, despite infrastructure constraints (Agrawal and Narain, 2018; Giannakis *et al.*, 2019). Similarly, Figure 2 emphasizes digital policy alignment as institutional enabler that mitigates institutional voids. These benefits derived from the application of digitalisation to SCM as evidenced in the next set of quotes.

4.3 *Evidence of international trade resilience*

This section explores the potential of digital platforms and mobile applications to bridge the gaps between global practices and institutional voids, through an improved MNCs' sourcing procedures. It examines how institutional technologies mediate the relationship between MNCs' operations and the institutional/local contexts. Specifically, it illustrates how digital technologies have been revolutionised and leveraged by our participants to optimise their supply chain strategies in emerging markets, and how such an effort translates to international trade resilience:

> *"…new technologies like smartphones and online digital platforms have impacted our sourcing process. These tools have revolutionised how we connect with vendors… manage …supply chain. …we use WhatsApp to communicate with suppliers about orders or quality issues. LinkedIn helps … discover new potential vendors…"* (Participant 18).
> *"We use picture sharing apps to clarify and validate orders and supplies before dispatching" (*Participant 21*)*

The above quotes align with Bag *et al.* (2021) study on how digital technologies enable supply chain agility in emerging economies. Yet, an integration of advanced supply chain management systems with local operations represents another development:

> *"We leverage our parent company's advanced supply chain management systems, which integrate with various digital platforms. …we use a proprietary app that connects…with our global ERP system, allowing real-time inventory tracking…"* (Participant 21).

> *"We currently do not have many issues with managing our relationship with our suppliers… This is because with our artificial intelligence and our machine learning technologies, we can easily identify new suppliers, predict changes in demand and supply, optimise an efficient route for our supplies and deliveries, negotiate quicker with clients and facilitate procuring" (*Participant 6*).*

The quote is consistent with research (e.g., Queiroz *et al.*, 2022) which emphasises alignment between global integration and local responsiveness in supply chain management. Similarly, blockchain technology adoption for supply chain traceability have been found as an emerging trend in digital integration (Kshetri's, 2021), and the empirical data also found that participants view this technology as a valuable tool in addressing the gap between global standards and local market demands:

> *"We're also exploring blockchain technology to enhance traceability in our supply chain…and transparency in sourcing"* (Participant 27).

This highlights how digital platforms have transformed how MNCs engage with and sell their services to customers. Further insights are provided below:

> *"…the emergence of new technologies has impacted the way we interact with our customers and disseminate our services… We use digital channels to showcase our properties, conduct virtual tours, and engage with potential customers…"* (Participant 24).
> *"Our system (i.e., our cloud computing) allows us to share updates and data with clients and stakeholders on time, and it allows all stakeholders real-time access to important updates, 24/7"* (Participant 22).

Mobile applications also enable B2B marketing and customer engagement:

> *"We have created a mobile application that enables our B2B customers, specifically retailers, to conveniently make orders, monitor deliveries, and handle their accounts."* (participant 21).

Mobile technology adoption also exemplifies how institutional technologies address institutional voids in emerging economies (Baabdullah *et al.*, 2019). For instance, AI (particularly chatbots) has improved customer service, as noted by participants:

> *"We have integrated a chatbot on our website to manage customer enquiries and basic orders, resulting in enhanced response times and customer satisfaction rates"* (participant 27).

Participants statement aligns with research suggesting how AI-powered services can enhance operational efficiency and customer experience (Chatterjee *et al.*, 2021). Despite these potentials, MNCs face some adoption challenges with institutional technology, such as cost:

> *"The main obstacle is the cost of purchasing and maintaining this technology…"* (participant 18).

The quote is consistent with Nair *et al.*'s (2020) findings that limited resources may hinder technology adoption in developing countries. For instance, apart from cost, other challenges include integrating global systems with local requirements, as well as the challenge of keeping up to date with rapidly evolving global technological innovations:

> *"...For instance, our global ERP system needed significant customisation to handle Nigeria's complex tax structures and multi-currency transactions"* (Participant 21).

> *"We're constantly evaluating new solutions…due to the rapid pace of technological change*" (Participant 29).

The complexities of bridging global standards and local market peculiarities have been clearly highlighted (Pal *et al.*, 2019). MNCs (especially in emerging markets) encounter peculiar challenges due to the limited capacity (in their digital environments) to keep up with the rapidity of global technological change. The findings have not only shown that this limitation is a barrier to adopting new/innovative SCM and international marketing technologies in emerging markets' MNCs, but also how the participants have devised coping mechanisms. Specifically, the above

quotes have revealed how the interplay between digital policy alignment, organisational technology readiness and industry digital intensity translate to supply chain agility and international trade resilience. The next section further interprets the meaning of our findings, describing their significance, placing them into the context of extant literature, using a model to contextualise the findings, addressing our research questions, while explaining the implications of our findings.

5. Discussion

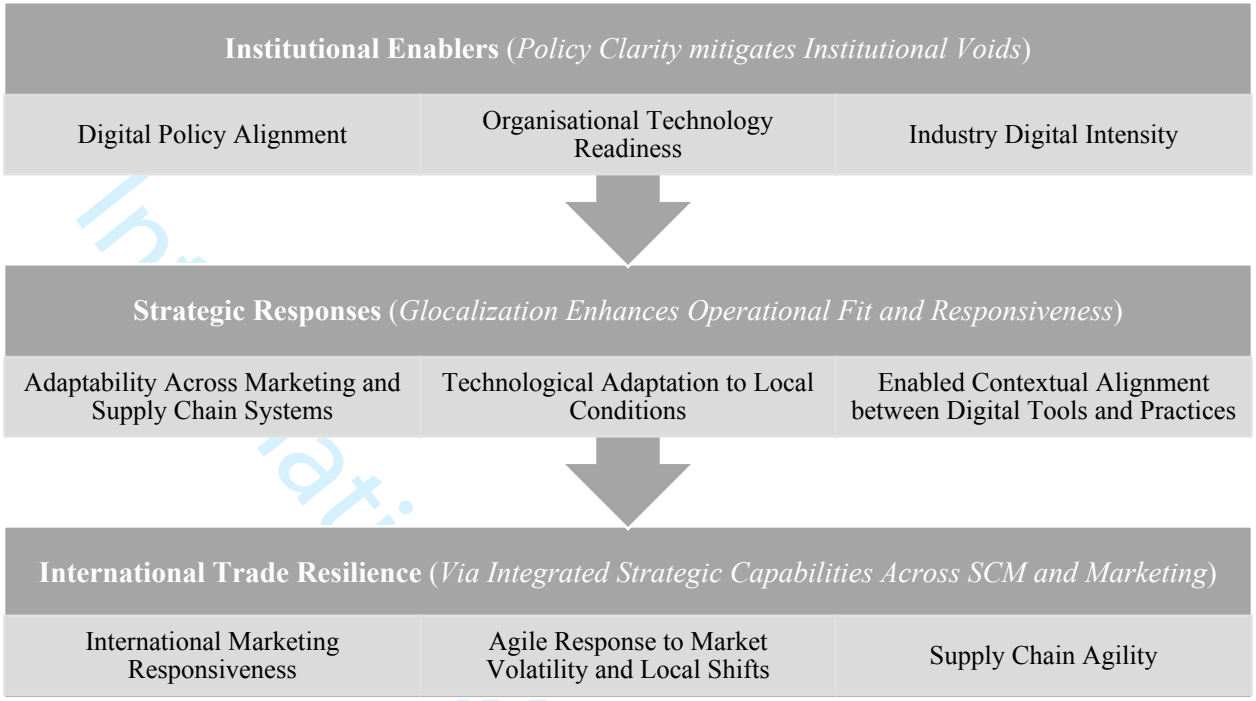
Our findings provide comprehensive answers to the research questions posed at the outset of this study. Regarding RQ1, which asked how institutional technologies influence MNCs' global SCM and international marketing efforts in African emerging markets, the empirical evidence indicates that the institutional and local context (including cultural expectations, regulatory environments, and infrastructure conditions) necessitates adaptation of global business practices to local conditions. We found that MNCs employ "glocalization" strategies: tailoring their supply chain and marketing approaches to fit local norms and constraints, while leveraging digital tools to bridge infrastructural and institutional gaps. In answer to RQ2, concerning how these dynamics translate to supply chain agility and international trade resilience, our results show that the integration of institutional technologies enable MNCs to become more agile and resilient. By adopting innovative technologies (from basic mobile communications to advanced systems like ERPs and blockchain) and adjusting practices to local needs, firms bolster their ability to withstand disruptions and maintain performance, thereby enhancing international trade resilience.

Furthermore, figure 2 presents a conceptual model illustrating how institutional enablers – digital policy alignment, organisational tech readiness and industry digital intensity can foster MNCs' strategic responses. The digital business environment acts as a mediating platform between MNCs' adaptation of their global operations to the local context. The model in figure 2 highlights

how contextual alignment between digital tools and practices and coupled with adaptability across marketing and supply chain systems could foster MNCs' capacity to adapt digital technological innovations to local conditions, and how these translate to international trade resilience – supply chain agility and international marketing responsiveness. This theoretical development extends prior research by explicitly linking institutional context and digital adaptation to resilience outcomes, offering a more nuanced understanding of how MNCs succeed in challenging emerging market environments.

In interpreting our results, we considered negative cases where institutional technologies' capacity was restricted by other factors within the macro environment. While most participants affirmed the importance of digital adaptation and local contextualisation, a few instances deviated from the dominant patterns. For example, one participant noted that despite significant investments in technology, their firm still struggled with supply chain disruptions due to factors completely outside their control (such as sudden political instability) – suggesting that the benefits from using institutional technologies can only be maximised if the environment is conducive. Figure 2 below presents the conceptual model derived from the literature but relates to the findings.

Figure 2: Conceptual model illustrating how institutional contexts influence MNCs' adaptive strategies (i.e., "glocalization") and how this can lead to international trade resilience.



6. Theoretical Contributions

Our findings provide several significant theoretical contributions to the literature on institutional technologies, global supply chain management, and international marketing in emerging markets as well as contribute to the growing body of research linking digital business environments and firms' capacity to provide an integrated value proposition (Stonig *et al.*, 2022). First, our research extends understanding of how institutional technologies help MNCs navigate institutional voids in the distinctive socio-economic environment of African markets (Amankwah-Amoah et al., 2022; Osabutey and Jackson, 2024) through strategic technology deployment. While previous research has examined institutional voids primarily in developed economies (Parthiban *et al.*, 2020), our study reveals how digital innovations specifically address the unique challenges in resource-constrained African contexts, with the aim to overcome severe institutional gaps characterized by regulatory complexities, inconsistent policies, and infrastructural deficiencies

(Amankwah-Amoah *et al.*, 2022). Our data demonstrates that MNCs in African markets do not simply work around institutional voids but actively create technological solutions (mobile platforms and digital communication tools) that connect global practices with local institutional realities, thus extending the theoretical understanding beyond previously identified (Doh *et al.,* 2017; Kshetri, 2021). This furthermore emphasises the importance of understanding and aligning the host country's digital policy, industry level digital business intensity, organisational readiness of digital innovation and digital business environment in achieving operational flexibility, marketing agility and enhanced competitive advantage (Baldwin et al., 2024; Pisano and Teece, 2007).

Second, our research enhances dynamic capabilities research by theorising how technology-enabled sensing, seizing, and reconfiguring processes unfold under severe institutional constraints rather than simply reaffirming the existence of these dimensions. Whereas prior dynamic capabilities work often examines relatively stable institutional environments, our empirical evidence shows that MNCs in African emerging markets must continually deploy "glocalization" strategies through institutional technologies. While institutional theory has traditionally examined how organizations respond to institutional pressures (North, 1990; Webb *et al.,* 2020; Dieleman et al., 2022; Kshetri, 2021), our findings reveal a more nuanced picture of how firms actively use technology to bridge institutional divides by identifying "institutional bridges" – technological adaptations that connect global practices with local requirements. By identifying institutional technology management as a specific manifestation of dynamic capabilities that is oriented not only towards competitive advantage but also towards building and maintaining supply chain agility and trade resilience, our findings contribute theoretically by linking dynamic capabilities to institutional voids and resilience outcomes, clarifying how

technology-enabled capabilities help firms simultaneously navigate institutional weaknesses and sustain international trade performance. This finding contributes to institutional theory by demonstrating how organizations are not merely passive responders to institutional pressures but active shapers of their institutional environment through technological innovation, extending the work of Dieleman *et al*. (2022) and Webb *et al.* (2020) on institutional entrepreneurship in emerging markets.

Third, our research contributes to understanding resilience capabilities in resource-constrained international trade by theorising how institutional technologies and local knowledge jointly generate a distinct form of conceptual resilience. Previous studies have identified how organizational resilience might be influenced by institutional technologies (Li *et al*., 2022; Vargo et al., 2023), but they have paid less attention to the specific capability mechanisms through which this influence materialises in environments characterised by persistent institutional voids. Building on resilience theory, our findings extend existing frameworks by specifying that resilience in African emerging markets is built through the purposeful interplay between technological adaptation and local knowledge integration—creating a unique form of "contextual resilience" that allows MNCs to maintain operations despite severe institutional constraints. This moves beyond merely arguing that institutional technologies support resilience and instead theorises contextual resilience as a capability configuration that links technology management, local knowledge, and dynamic capability processes. In doing so, we clarify how resilience theory can account for situations when traditional resources are scarce, suggesting that contextual resilience emerges from the creative combination of limited technological tools with deep local knowledge, creating institutional and market conditions.

Finally, our findings advance understanding of marketing agility in volatile institutional contexts (Thoumrungroje and Racela, 2022; Hughes and Chandy, 2021) by specifying how agility is configured when institutional voids and resource scarcity are persistent rather than temporary constraints. Previous work on marketing agility has focused primarily on developed economies or Asian contexts (Kalaignanam *et al*., 2021; Golgeci and Gligor, 2017) offering limited insight into how agility is enacted when digital infrastructures are patchy, regulatory rules are inconsistent, and informal institutions are central to market functioning. Our research demonstrates how MNCs in African markets develop distinctive forms of agility – resource-constrained agility – where firms maximize limited technological resources with local knowledge to enable continuous marketing responsiveness to institutional and market shifts despite severe infrastructure limitations. This extends existing marketing agility theory (Kalaignanam et al., 2021; Golgeci and Gligor, 2017) by clarifying the mechanisms through which agility operates under resource constraints and by showing that resource scarcity can, under certain conditions, sharpen firms' ability to prioritise, focus, and repurpose limited technological resources to sustain marketing responsiveness.

7. Practical and Policy Implications

Our research provides valuable practical and policy implications for various stakeholders navigating the complex landscape of institutional technologies in African emerging markets. For managers of MNCs operating in African emerging markets, our findings suggest several actionable strategies. First, rather than implementing standardized global technological solutions, managers should conduct thorough institutional context assessments before deploying technologies. This involves mapping specific institutional voids in their operating environment and identifying which technologies can effectively bridge these gaps. For example, in environments with unreliable

power infrastructure like Nigeria, investing in hybrid energy solutions (combining renewable sources with traditional backups) can ensure consistent operation of critical digital infrastructure, as demonstrated by several participants in our study.

Second, managers should prioritize implementing multiple complementary technologies that address different institutional voids simultaneously. Our findings reveal that successful MNCs in Nigeria deploy basic mobile applications alongside sophisticated Enterprise Resource Planning systems, creating redundancy that enhances resilience when one system faces challenges. This multi-layered approach allows firms to maintain operational continuity even when individual technological components face disruption.

Third, MNCs operating in African emerging markets should prioritize the development of local technological capabilities through structured training initiatives and partnerships with domestic technology providers, and we linked this to the dynamic capabilities' theory. Boosting local talent facilitates the efficient adoption and integration of institutional technologies and fosters the development of technological ecosystems capable of adapting to changing market and regulatory environments. Insights from a participants (P21) indicated that companies who created digital platforms in accordance with global systems and local needs attained enhanced technological localization and maintained a competitive edge in the African markets.

Beyond operational efficiency, investing in local technological ecosystems enables MNCs to stimulate job creation, foster indigenous innovation, and support the development of a skilled digital workforce, and we linked this to dynamic capabilities development. To do this, MNCs must establish partnerships with local technological innovators to infuse essential capital and expertise into the community, thereby fostering a virtuous cycle of innovation and economic development. The ethical implementation of institutional technologies is equally significant. Managers must

maintain robust commitments to data privacy, digital inclusion, and equal access to technological resources. Furthermore, institutional technologies must be conceived and executed to empower stakeholders, guaranteeing that digital transformation yields widely distributed advantages.

For policymakers in African countries, our research highlights the need for coherent digital policy frameworks that facilitate technological adoption while protecting stakeholder interests. As one participant noted, regulatory complexity significantly hampers technology implementation. Policy makers can facilitate institutional technology implementation by streamlining regulatory processes, alleviating bureaucratic obstacles, and providing incentives such as capacity-building funds for information technologies management. Governments in African continent should consequently promote advocating for public-private partnerships (PPPs) in digital infrastructure. These collaborative endeavours can facilitate the development of shared digital assets, alleviate individual firms' financial responsibilities, and expedite national development strategies that prioritize technological advancements for economic and social progress.

For supply chain professionals specifically, our research suggests implementing digitally enabled supplier development programs that transfer technological capabilities throughout the supply chain, and we also link this to dynamic capabilities development. Rather than focusing exclusively on internal technology adoption, MNCs should work with suppliers to enhance their technological capabilities, creating more resilient multi-tier supply chains. This involves identifying critical suppliers, assessing their technology readiness, and implementing targeted support programs that enhance overall supply chain resilience.

Long-term strategies for overcoming the institutional challenges identified in our research should focus on developing what we term "institutional technology ecosystems" – interconnected networks of technologies, policies, and capabilities that collectively address institutional voids.

This requires sustained investment in both technological infrastructure and human capabilities, with particular attention to creating locally relevant solutions that address specific institutional challenges rather than importing standardized global approaches. Organizations that successfully navigate these environments will be those that develop the capability to continuously reconfigure their technological resources in response to evolving institutional conditions.

8. Limitations and Future Research

Despite the contributions of this study, it is important to acknowledge its limitations and how these translate to opportunities for future research. First, the research is confined to MNC subsidiaries in Nigeria, which limits the generalisability of the findings to other emerging markets with different institutional configurations. Future research could expand the scope to other African countries or regions to examine whether the observed patterns are consistent across different institutional contexts or whether they are specific to the Nigerian environment. Second, our sample was obtained through purposive, convenience, and snowballing sampling of managers who were accessible and willing to participate. This approach, while appropriate for exploratory qualitative research, it raises the possibility of selection bias, as could be argued that the perspectives of those not selected might diverge from our findings. Consequently, future studies could adopt mixed methods approaches to complement our qualitative insights with quantitative assessment of performance impacts, potentially using longitudinal designs to track how institutional technology adoption influences resilience and performance over time.

Third, our sample primarily included mid- and senior-level managers from MNC subsidiaries, potentially overlooking perspectives from other stakeholders such as local partners, government

officials, or technology providers. Future research could incorporate these multiple stakeholders to develop a more comprehensive understanding of the institutional technology ecosystem. Additionally, researchers could examine the transferability of technological solutions developed in resource-constrained environments to other contexts. Our findings suggest that innovations developed to address severe institutional voids might offer unique value in other environments, representing a form of "reverse innovation" which could benefit operations in developed markets. Finally, future research could explore the ethical dimensions of institutional technologies in emerging markets, examining potential unintended consequences and ensuring that technological solutions benefit local communities rather than merely extracting value for multinational corporations.

9. Conclusion

This research provides valuable insights into how institutional technologies influence global supply chain management and international marketing efforts of MNCs in African emerging markets, with important implications for international trade resilience. Our findings reveal that the institutional and local contexts of African emerging markets present unique challenges, including inadequate infrastructure, prevalent informal business practices, complex regulatory environments, and limited access to advanced technological resources. These institutional voids create significant disparities between local practices and established global standards, resulting in resource constraints and limited business opportunities. In response to these challenges, we find that MNCs adopt glocalization strategies, tailoring technological solutions to local conditions while maintaining global standards. By exploring the case of Nigeria, we demonstrate that embracing digital innovations and aligning them with local institutional realities can help MNCs achieve greater agility and resilience in their operations. This adaptation involves strategic

deployment of institutional technologies ranging from basic mobile applications to advanced systems, enabling firms to navigate institutional complexities while maintaining operational continuity. The digital business environment serves as a critical mediating platform through which MNCs implement these adaptive strategies, fostering relationship-building, enhancing coordinated operations, and optimizing resource allocation.

By illuminating the specific mechanisms through which MNCs navigate the complex institutional landscapes in African emerging markets and the role of institutional technologies in this context, our research enhances understanding of international business operations in challenging environments and provides a foundation for further investigation of institutional technologies in emerging markets globally. It also highlights the need for further investments in institutional technologies.

References

Abdullahi, M.S., Shehu, U.R. and Usman, B.M. (2019), "Impact of information communication technology on organizational productivity in the Nigeria banking industry: empirical evidence", Noble International Journal of Business and Management Research, Vol. 3 No. 1, pp. 1-9.

Aborisade, O.P. (2013), "Data collection and new technology", International Journal of Emerging Technologies in Learning, Vol. 8 No. 2, pp. 48-52. Doi: 10.3991/ijet.v8i2.2157

Adeleye, I., Luiz, J., Muthuri, J. and Amaeshi, K. (2020), "Business ethics in Africa: the role of institutional context, social relevance, and development challenges", Journal of Business Ethics, Vol. 161 No. 4, pp. 717-729. Doi: 10.1007/s10551-019-04338-x

Agrawal, P. and Narain, R. (2018), "Digital supply chain management: an overview", IOP Conference Series: Materials Science and Engineering, Vol. 455 No. 1, p. 012074. Doi: 10.1088/1757-899X/455/1/012074

Ahi, A.A., Sinkovics, N., Shildibekov, Y., Sinkovics, R.R. and Mehandjiev, N. (2022), "Advanced technologies and international business: a multidisciplinary analysis of the literature", International Business Review, Vol. 31 No. 4, p. 101967. Doi: 10.1016/j.ibusrev.2021.101967

Alderson, P. and Morrow, V. (2020), The Ethics of Research with Children and Young People: A Practical Handbook, 2nd ed., SAGE Publications Ltd, London.

Ali, I., Golgeci, I. and Arslan, A. (2023), "Achieving resilience through knowledge management practices and risk management culture in agri-food supply chains", Supply Chain Management: An International Journal, Vol. 28 No. 2, pp. 284-299. Doi: 10.1108/SCM-02-2021-0059

Allen, D.W., Berg, C., Markey-Towler, B., Novak, M. and Potts, J. (2020), "Blockchain and the evolution of institutional technologies: implications for innovation policy", Research Policy, Vol. 49 No. 1, p. 103865. Doi: 10.1016/j.respol.2019.103865

Amankwah-Amoah, J., Boso, N. and Kutsoati, J.K. (2022), "Institutionalization of protection for intangible assets: insights from the counterfeit and pirated goods trade in sub-Saharan Africa", Journal of World Business, Vol. 57 No. 2, p. 101307. Doi: 10.1016/j.jwb.2021.101307

Amusan, L. (2018), "Multinational corporations' (MNCs) engagement in Africa: messiahs or hypocrites?", Journal of African Foreign Affairs, Vol. 5 No. 1, pp. 41-62. Doi: 10.31920/2056-5658/2018/v5n1a3

Andrews, L.R.J. and Luiz, J.M. (2025), "Dynamic capabilities and the management of institutional voids: a case study of intra-African internationalization", Thunderbird International Business Review, Vol. 67 No. 3, pp. 313-327. Doi: 10.1002/tie.22427

Armstrong, D., Gosling, A., Weinman, J. and Marteau, T. (1997), "The place of inter-rater reliability in qualitative research: an empirical study", Sociology, Vol. 31 No. 3, pp. 597-606. Doi: 10.1177/0038038597031003015

Baabdullah, A.M., Rana, N.P., Alalwan, A.A., Islam, R., Patil, P. and Dwivedi, Y.K. (2019), "Consumer adoption of self-service technologies in the context of the Jordanian banking industry: examining the moderating role of channel types", Information Systems Management, Vol. 36 No. 4, pp. 286-305. Doi: 10.1080/10580530.2019.1651107

Bag, S., Gupta, S., Kumar, A. and Sivarajah, U. (2021), "An integrated artificial intelligence framework for knowledge creation and B2B marketing rational decision making for improving firm performance", Industrial Marketing Management, Vol. 92, pp. 178-189. Doi: 10.1016/j.indmarman.2020.12.001

Baldwin, C.Y., Bogers, M.L., Kapoor, R. and West, J. (2024), "Focusing the ecosystem lens on innovation studies", Research Policy, Vol. 53 No. 3, p. 104949. Doi: 10.1016/j.respol.2023.104949

Barnard, H., Amaeshi, K. and Vaaler, P.M. (2023), "Theorizing international business in Africa: a roadmap", Journal of International Business Policy, Vol. 6 No. 4, pp. 389-407. Doi: 10.1057/s42214-023-00175-y

Barnard, H., Cuervo-Cazurra, A. and Manning, S. (2017), "Africa business research as a laboratory for theory-building: extreme conditions, new phenomena, and alternative paradigms of social relationships", Management and Organization Review, Vol. 13 No. 3, pp. 467-495. Doi: 10.1017/mor.2017.34

Barney, J. (1991), "Firm resources and sustained competitive advantage", Journal of Management, Vol. 17 No. 1, pp. 99-120. Doi: 10.1177/014920639101700108

Berraies, S. (2020), "Effect of middle managers' cultural intelligence on firms' innovation performance: knowledge sharing as mediator and collaborative climate as moderator", Personnel Review, Vol. 49 No. 4, pp. 1015-1038. Doi: 10.1108/PR-10-2018-0426

Bhattacharya, S., Victor, N., Chengoden, R., Ramalingam, M., Selvi, G.C., Maddikunta, P.K.R., Donta, P.K., Dustdar, S., Jhaveri, R.H. and Gadekallu, T.R. (2022), "Blockchain for Internet of Underwater Things: state-of-the-art, applications, challenges, and future directions", Sustainability, Vol. 14 No. 23, p. 15659. Doi: 10.3390/su142315659

Boso, N., Adeleye, I., Ibeh, K. and Chizema, A. (2019), "The internationalization of African firms: opportunities, challenges, and risks", Thunderbird International Business Review, Vol. 61 No. 1, pp. 5-12. Doi: 10.1002/tie.21977

Bowden, C. and Galindo-Gonzalez, S. (2015), "Interviewing when you're not face-to-face: the use of email interviews in a phenomenological study", International Journal of Doctoral Studies, Vol. 10, pp. 79-92. Doi: 10.28945/2104

Bowen, G.A. (2009), "Document analysis as a qualitative research method", Qualitative Research Journal, Vol. 9 No. 2, pp. 27-40. Doi: 10.3316/QRJ0902027

Braun, V. and Clarke, V. (2006), "Using thematic analysis in psychology", Qualitative Research in Psychology, Vol. 3 No. 2, pp. 77-101. Doi: 10.1191/1478088706qp063oa

Braun, V. and Clarke, V. (2019), "Reflecting on reflexive thematic analysis", Qualitative Research in Sport, Exercise and Health, Vol. 11 No. 4, pp. 589-597. Doi: 10.1080/2159676X.2019.1628806

Braun, V., Clarke, V. and Gray, D. (Eds.) (2017), Collecting Qualitative Data: A Practical Guide to Textual, Media and Virtual Techniques, Cambridge University Press, Cambridge.

Brinkmann, S. (2014), "Unstructured and semi-structured interviewing", in Leavy, P. (Ed.), The Oxford Handbook of Qualitative Research, Oxford University Press, Oxford, pp. 277-299. Doi: 10.1093/oxfordhb/9780199811755.013.030

Brix-Asala, C. and Seuring, S. (2020), "Bridging institutional voids via supplier development in base of the pyramid supply chains", Production Planning & Control, Vol. 31 No. 11-12, pp. 903-919. Doi: 10.1080/09537287.2019.1695918

Bryan Jean, R.J., Sinkovics, R.R. and Kim, D. (2008), "Information technology and organizational performance within international business to business relationships: a review and an integrated conceptual framework", International Marketing Review, Vol. 25 No. 5, pp. 563-583. Doi: 10.1108/02651330810904099

Buckley, P.J. and Tian, X. (2017), "Internalization theory and the performance of emerging-market multinational enterprises", International Business Review, Vol. 26 No. 5, pp. 976-990. Doi: 10.1016/j.ibusrev.2017.03.005

Cantele, S., Russo, I., Kirchoff, J.F. and Valcozzena, S. (2023), "Supply chain agility and sustainability performance: a configurational approach to sustainable supply chain management practices", Journal of Cleaner Production, Vol. 414, p. 137493. Doi: 10.1016/j.jclepro.2023.137493

Carson, S.J., Devinney, T.M., Dowling, G.R. and John, G. (1999), "Understanding institutional designs within marketing value systems", Journal of Marketing, Vol. 63 No. SUPPL., pp. 115-130. Doi: 10.1177/00222429990634s112

Carter, S.M., Shih, P., Williams, J., Degeling, C. and Mooney-Somers, J. (2021), "Conducting qualitative research online: challenges and solutions", The Patient -Patient-Centered Outcomes Research, Vol. 14 No. 6, pp. 711-718. Doi: 10.1007/s40271-021-00528-w

Castillo-Montoya, M. (2016), "Preparing for interview research: the interview protocol refinement framework", The Qualitative Report, Vol. 21 No. 5, pp. 811-831. Doi: 10.46743/2160-3715/2016.2337

Cetindamar, D., Phaal, R. and Probert, D. (2009), "Understanding technology management as a dynamic capability: a framework for technology management activities", Technovation, Vol. 29 No. 4, pp. 237-246. Doi: 10.1016/j.technovation.2008.10.004

Chatterjee, S., Rana, N.P., Tamilmani, K. and Sharma, A. (2021), "The effect of AI-based CRM on organization performance and competitive advantage: an empirical analysis in the B2B context", Industrial Marketing Management, Vol. 97, pp. 205-219. Doi: 10.1016/j.indmarman.2021.07.013

Creswell, J.W. and Poth, C.N. (2016), Qualitative Inquiry and Research Design: Choosing Among Five Approaches, 4th ed., Sage Publications, Thousand Oaks, CA.

Das, G.G. and Drine, I. (2020), "Distance from the technology frontier: how could Africa catch-up via socio-institutional factors and human capital?", Technological Forecasting and Social Change, Vol. 150, p. 119755. Doi: 10.1016/j.techfore.2019.119755

Davenport, T., Guha, A., Grewal, D. and Bressgott, T. (2020), "How artificial intelligence will change the future of marketing", Journal of the Academy of Marketing Science, Vol. 48 No. 1, pp. 24-42. Doi: 10.1007/s11747-019-00696-0

De Villa, M.A., Rajwani, T., Lawton, T.C. and Mellahi, K. (2019), "To engage or not to engage with host governments: corporate political activity and host country political risk", Global Strategy Journal, Vol. 9 No. 2, pp. 208-242. Doi: 10.1002/gsj.1205

Dekel-Dachs, O., Najda-Janoszka, M., Stokes, P., Simba, A. and Tarba, S. (2021), "Searching for a new perspective on institutional voids, networks and the internationalisation of SMEs in emerging economies: a systematic literature review", International Marketing Review, Vol. 38 No. 5, pp. 879-899. Doi: 10.1108/IMR-12-2020-0303

Dieleman, M., Markus, S., Rajwani, T. and White III, G.O. (2022), "Revisiting institutional voids: advancing the international business literature by leveraging social sciences", Journal of International Management, Vol. 28 No. 3, p. 100935. Doi: 10.1016/j.intman.2022.100935

DiMaggio, P.J. and Powell, W.W. (1983), "The iron cage revisited: institutional isomorphism and collective rationality in organizational fields", American Sociological Review, Vol. 48 No. 2, pp. 147-160. Doi: 10.2307/2095101

Doh, J., Rodrigues, S., Saka-Helmhout, A. and Makhija, M. (2017), "International business responses to institutional voids", Journal of International Business Studies, Vol. 48 No. 3, pp. 293-307. Doi: 10.1057/s41267-017-0074-z

Eduardsen, J., Marinova, S., Leonidou, L.C. and Christodoulides, P. (2023), "Organizational influences and performance impact of cross-border e-commerce barriers: the moderating role of home country digital infrastructure and foreign market internet penetration", Management International Review, Vol. 63 No. 3, pp. 433-467. Doi: 10.1007/s11575-023-00500-w

Elo, M. and Silva, S. (2022), "Who creates international marketing agility? Diasporic agility guiding new market entry processes in emerging contexts", Thunderbird International Business Review, Vol. 64 No. 5, pp. 443-463. Doi: 10.1002/tie.22284

Feng, B., Zheng, M. and Shen, Y. (2024), "The effect of relational embeddedness on transparency in supply chain networks: the moderating role of digitalization", International Journal of Operations & Production Management, Vol. 44 No. 9, pp. 1621-1648. Doi: 10.1108/IJOPM-08-2023-0713

Fleury, A., Fleury, M.T.L., Oliveira, L. and Leao, P. (2024), "Going digital EMNEs: the role of digital maturity capability", International Business Review, Vol. 33 No. 4, p. 102271. Doi: 10.1016/j.ibusrev.2024.102271

Gaglio, C., Kraemer-Mbula, E. and Lorenz, E. (2022), "The effects of digital transformation on innovation and productivity: firm-level evidence of South African manufacturing micro and small enterprises", Technological Forecasting and Social Change, Vol. 182, p. 121785. Doi: 10.1016/j.techfore.2022.121785

Garrone, P., Piscitello, L. and D'Amelio, M. (2019), "Multinational enterprises and the provision of collective goods in developing countries under formal and informal institutional

voids: the case of electricity in Sub-Saharan Africa", Journal of International Management, Vol. 25 No. 2, p. 100650. Doi: 10.1016/j.intman.2018.09.002

Gebisa, D.A. and Ram, T. (2021), "The effect of information sharing and inventory management in the supply chain practices on firms' performance: empirical evidence from some selected companies of Ethiopia", International Journal of Industrial Engineering and Operations Management, Vol. 3 No. 01, pp. 1-15. Doi: 10.46254/j.ieom.20210101

Getachew, Y.S., Fon, R. and Chrysostome, E. (2023), "On the location choices of African multinational enterprises: do supranational economic institutions matter?", Journal of International Business Policy, Vol. 6 No. 4, pp. 453-490. Doi: 10.1057/s42214-023-00165-0

Ghosh, S., Hughes, M., Hodgkinson, I. and Hughes, P. (2022), "Digital transformation of industrial businesses: a dynamic capability approach", Technovation, Vol. 113, p. 102414. Doi: 10.1016/j.technovation.2021.102414

Ghoul, S.E., Guedhami, O. and Kim, Y. (2017), "Country-level institutions, firm value, and the role of corporate social responsibility initiatives", Journal of International Business Studies, Vol. 48 No. 3, pp. 360-385. Doi: 10.1057/jibs.2016.4

Giannakis, M., Spanaki, K. and Dubey, R. (2019), "A cloud-based supply chain management system: effects on supply chain responsiveness", Journal of Enterprise Information Management, Vol. 32 No. 4, pp. 585-607. Doi: 10.1108/JEIM-05-2018-0106

Gioia, D.A., Corley, K.G. and Hamilton, A.L. (2013), "Seeking qualitative rigor in inductive research: notes on the Gioia methodology", Organizational Research Methods, Vol. 16 No. 1, pp. 15-31. Doi: 10.1177/1094428112452151

Gioia, D.A., Price, K.N., Hamilton, A.L. and Thomas, J.B. (2010), "Forging an identity: an insider-outsider study of processes involved in the formation of organizational identity", Administrative Science Quarterly, Vol. 55 No. 1, pp. 1-46. Doi: 10.2189/asqu.2010.55.1.1

Gligor, D.M., Davis-Sramek, B., Tan, A., Vitale, A., Russo, I., Golgeci, I. and Wan, X. (2022), "Utilizing blockchain technology for supply chain transparency: a resource orchestration perspective", Journal of Business Logistics, Vol. 43 No. 1, pp. 140-159. Doi: 10.1111/jbl.12287

Golgeci, I. and Gligor, D.M. (2017), "The interplay between key marketing and supply chain management capabilities: the role of integrative mechanisms", Journal of Business & Industrial Marketing, Vol. 32 No. 3, pp. 472-483. Doi: 10.1108/JBIM-05-2016-0102

Gölgeci, I. and Kuivalainen, O. (2020), "Does social capital matter for supply chain resilience? The role of absorptive capacity and marketing-supply chain management alignment", Industrial Marketing Management, Vol. 84, pp. 63-74. Doi: 10.1016/j.indmarman.2019.05.006

Golgeci, I., Makhmadshoev, D. and Demirbag, M. (2021), "Global value chains and the environmental sustainability of emerging market firms: a systematic review of literature and research agenda", International Business Review, Vol. 30 No. 5, p. 101857. Doi: 10.1016/j.ibusrev.2021.101857

Grewal, R., Saini, A., Kumar, A., Dwyer, F.R. and Dahlstrom, R. (2018), "Marketing channel management by multinational corporations in foreign markets", Journal of Marketing, Vol. 82 No. 4, pp. 49-69. Doi: 10.1509/jm.16.0335

Gupta, M. and Gupta, S. (2019), "Influence of national cultures on operations management and supply chain management practices -a research agenda", Production and Operations Management, Vol. 28 No. 11, pp. 2681-2698. Doi: 10.1111/poms.13100

Hakkarainen, T., Colicev, A. and Pedersen, T. (2024), "A perspective on three trade-offs of blockchain technology for the global strategy of the MNC", Global Strategy Journal, Vol. 14 No. 3, pp. 635-654. Doi: 10.1002/gsj.1509

Hallikainen, H., Savimäki, E. and Laukkanen, T. (2020), "Fostering B2B sales with customer big data analytics", Industrial Marketing Management, Vol. 86, pp. 90-98. Doi: 10.1016/j.indmarman.2019.12.005

Hamisi, S. (2011), "Challenges and opportunities of Tanzanian SMEs in adapting supply chain management", African Journal of Business Management, Vol. 5 No. 4, pp. 1266-1276. DOI: 10.5897/AJBM10.704

Hammerschlag, Z., Bick, G. and Luiz, J.M. (2020), "The internationalization of African fintech firms: marketing strategies for successful intra-Africa expansion", International Marketing Review, Vol. 37 No. 2, pp. 299-317. Doi: 10.1108/IMR-05-2019-0130

Hartley, J.L., Sawaya, W. and Dobrzykowski, D. (2022), "Exploring blockchain adoption intentions in the supply chain: perspectives from innovation diffusion and institutional theory", International Journal of Physical Distribution & Logistics Management, Vol. 52 No. 2, pp. 190-211. Doi: 10.1108/IJPDLM-05-2020-0163

Hodgson, G.M. (2025), "Formal and informal institutions: some problems of meaning, impact, and interaction", Journal of Institutional Economics, Vol. 21, p. e1. Doi: 10.1017/S1744137424000249

Hoffman, A.J. (1999), "Institutional evolution and change: environmentalism and the US chemical industry", Academy of Management Journal, Vol. 42 No. 4, pp. 351-371. Doi: 10.2307/257008

Holguín-Veras, J., Leal, J.A., Sánchez-Diaz, I., Browne, M. and Wojtowicz, J. (2020), "State of the art and practice of urban freight management: Part I: infrastructure, vehicle-related, and traffic operations", Transportation Research Part A: Policy and Practice, Vol. 137, pp. 360-382. Doi: 10.1016/j.tra.2018.10.037

Holling, C.S. (1973), "Resilience and stability of ecological systems", Annual Review of Ecology and Systematics, Vol. 4 No. 1, pp. 1-23.

Hughes, N. and Chandy, R. (2021), "Commentary: trajectories and twists: perspectives on marketing agility from emerging markets", Journal of Marketing, Vol. 85 No. 1, pp. 59-63. Doi: 10.1177/0022242920973037

Idemudia, U. and Osayande, N. (2018), "Assessing the effect of corporate social responsibility on community development in the Niger Delta: a corporate perspective", Community Development Journal, Vol. 53 No. 1, pp. 155-172. Doi: 10.1093/cdj/bsw019

Jia, F., Zuluaga-Cardona, L., Bailey, A. and Rueda, X. (2018), "Sustainable supply chain management in developing countries: an analysis of the literature", Journal of Cleaner Production, Vol. 189, pp. 263-278. Doi: 10.1016/j.jclepro.2018.03.248

Kalaignanam, K., Tuli, K.R., Kushwaha, T., Lee, L. and Gal, D. (2021), "Marketing agility: the concept, antecedents, and a research agenda", Journal of Marketing, Vol. 85 No. 1, pp. 35-58. Doi: 10.1177/0022242920952760

Kallio, H., Pietilä, A.M., Johnson, M. and Kangasniemi, M. (2016), "Systematic methodological review: developing a framework for a qualitative semi-structured interview

guide", Journal of Advanced Nursing, Vol. 72 No. 12, pp. 2954-2965. Doi: 10.1111/jan.13031

Katsikeas, C., Leonidou, L. and Zeriti, A. (2020), "Revisiting international marketing strategy in a digital era: opportunities, challenges, and research directions", International Marketing Review, Vol. 37 No. 3, pp. 405-424. Doi: 10.1108/IMR-02-2019-0080

Kauppi, K. and Luzzini, D. (2022), "Measuring institutional pressures in a supply chain context: scale development and testing", Supply Chain Management: An International Journal, Vol. 27 No. 7, pp. 79-107. Doi: 10.1108/SCM-04-2021-0169

Khanna, T. and Palepu, K. (1997), "Why focused strategies may be wrong for emerging markets", Harvard Business Review, Vol. 75 No. 4, pp. 41-51.

Khanna, T. and Palepu, K.G. (2010), Winning in Emerging Markets: A Road Map for Strategy and Execution, Harvard Business Press, Boston, MA.

Klassen, R.D., Shafiq, A. and Johnson, P.F. (2023), "Opportunism in supply chains: dynamically building governance mechanisms to address sustainability-related challenges", Transportation Research Part E: Logistics and Transportation Review, Vol. 171, p. 103021. Doi: 10.1016/j.tre.2023.103021

Koch, A.H. (2022), "Strategic responses of MNCs in emerging markets: addressing institutional voids associated with informal institutions", Critical Perspectives on International Business, Vol. 18 No. 2, pp. 137-156. Doi: 10.1108/cpoib-12-2019-0099

Kshetri, N. (2021), "Blockchain and sustainable supply chain management in developing countries", International Journal of Information Management, Vol. 60, p. 102376. Doi: 10.1016/j.ijinfomgt.2021.102376

Lacity, M.C. and van Hoek, R.I. (2021), "How Walmart Canada used blockchain technology to reimagine freight invoice processing", MIS Quarterly Executive, Vol. 20 No. 3, pp. 167-182. Doi: 10.17705/2msqe.00050

Leonavičienė, E. and Burinskienė, A. (2022), "Accelerating cultural dimensions at international companies in the evidence of internationalisation", Sustainability, Vol. 14 No. 3, p. 1524. Doi: 10.3390/su14031524

Li, L., Wang, Z., Ye, F., Chen, L. and Zhan, Y. (2022), "Digital technology deployment and firm resilience: evidence from the COVID-19 pandemic", Industrial Marketing Management, Vol. 105, pp. 190-199. Doi: 10.1016/j.indmarman.2022.06.002

Liedong, T.A., Peprah, A.A., Amartey, A.O. and Rajwani, T. (2020), "Institutional voids and firms' resource commitment in emerging markets: a review and future research agenda", Journal of International Management, Vol. 26 No. 3, p. 100756. Doi: 10.1016/j.intman.2020.100756

Liu, X., Vahtera, P., Wang, C., Wang, J. and Wei, Y. (2017), "The delicate balance: managing technology adoption and creation in multinational affiliates in an emerging economy", International Business Review, Vol. 26 No. 3, pp. 515-526. Doi: 10.1016/j.ibusrev.2016.11.002

Lobe, B., Morgan, D. and Hoffman, K.A. (2020), "Qualitative data collection in an era of social distancing", International Journal of Qualitative Methods, Vol. 19, p. 1609406920937875. Doi: 10.1177/1609406920937875

Lopez-Morales, B., Gutierrez, L., Llorens-Montes, F.J. and Rojo-Gallego-Burin, A. (2023), "Enhancing supply chain competences through supply chain digital embeddedness: an institutional view", Journal of Business & Industrial Marketing, Vol. 38 No. 3, pp. 533-552. Doi: 10.1108/JBIM-07-2021-0354

Manhart, P., Summers, J.K. and Blackhurst, J. (2020), "A meta-analytic review of supply chain risk management: assessing buffering and bridging strategies and firm performance", Journal of Supply Chain Management, Vol. 56 No. 3, pp. 66-87. Doi: 10.1111/jscm.12219

Manzoor, R., Sahay, B.S. and Singh, S.K. (2025), "Blockchain technology in supply chain management: an organizational theoretic overview and research agenda", Annals of Operations Research, Vol. 348 No. 3, pp. 1307-1354. Doi: 10.1007/s10479-022-05069-5

McAdam, R., Bititci, U. and Galbraith, B. (2017), "Technology alignment and business strategy: a performance measurement and dynamic capability perspective", International Journal of Production Research, Vol. 55 No. 23, pp. 7168-7186. Doi: 10.1080/00207543.2017.1351633

Meyer, J.W. and Rowan, B. (1977), "Institutionalized organizations: formal structure as myth and ceremony", American Journal of Sociology, Vol. 83 No. 2, pp. 340-363. Doi: 10.1086/226550

Meyer, K.E. and Peng, M.W. (2016), "Theoretical foundations of emerging economy business research", Journal of International Business Studies, Vol. 47 No. 1, pp. 3-22. Doi: 10.1057/jibs.2015.34

Micheler, E. and Whaley, A. (2020), "Regulatory technology: replacing law with computer code", European Business Organization Law Review, Vol. 21 No. 2, pp. 349-377. Doi: 10.1007/s40804-019-00151-1

Mwansa, G., Ngandu, M.R. and Mkwambi, Z. (2025), "Bridging the digital divide: exploring the challenges and solutions for digital exclusion in rural South Africa", Discover Global Society, Vol. 3 No. 1, p. 54. Doi: 10.1007/s44282-025-00189-2

Nair, M., Pradhan, R.P. and Arvin, M.B. (2020), "Endogenous dynamics between R&D, ICT and economic growth: empirical evidence from the OECD countries", Technology in Society, Vol. 62, p. 101315. Doi: 10.1016/j.techsoc.2020.101315

Nakpodia, F., Ashiru, F., You, J.J. and Oni, O. (2024), "Digital technologies, social entrepreneurship and resilience during crisis in developing countries: evidence from Nigeria", International Journal of Entrepreneurial Behavior & Research, Vol. 30 No. 2-3, pp. 342-368. Doi: 10.1108/IJEBR-01-2023-0012

North, D.C. (1990), Institutions, Institutional Change and Economic Performance, Cambridge University Press, Cambridge.

Ochie, C., Nyuur, R.B., Ludwig, G. and Cunningham, J.A. (2022), "Dynamic capabilities and organizational ambidexterity: new strategies from emerging market multinational enterprises in Nigeria", Thunderbird International Business Review, Vol. 64 No. 5, pp. 493-509. Doi: 10.1002/tie.22266

Ochinanwata, C., Igwe, P.A. and Radicic, D. (2024), "The institutional impact on the digital platform ecosystem and innovation", International Journal of Entrepreneurial Behavior & Research, Vol. 30 No. 2-3, pp. 687-708. Doi: 10.1108/IJEBR-01-2023-0015

O'Connor, C. and Joffe, H. (2020), "Intercoder reliability in qualitative research: debates and practical guidelines", International Journal of Qualitative Methods, Vol. 19, p. 1609406919899220. Doi: 10.1177/1609406919899220

Osabutey, E.L. and Jackson, T. (2024), "Mobile money and financial inclusion in Africa: emerging themes, challenges and policy implications", Technological Forecasting and Social Change, Vol. 202, p. 123339. Doi: 10.1016/j.techfore.2024.123339

Ozili, P.K. (2025), "Digital public infrastructure: concepts, global efforts, benefits, challenges, and success stories", Digital Society, Vol. 4 No. 1, p. 30. Doi: 10.1007/s44206-025-00185-8

Özsomer, A., Simonin, B. and Mandler, T. (2023), "Marketing agility in subsidiaries: market orientation and marketing program standardization as the 'twin engines' of performance", Journal of International Marketing, Vol. 31 No. 2, pp. 6-24. Doi: 10.1177/1069031X221130740

Pal, A., De', R., Herath, T. and Rao, H.R. (2019), "A review of contextual factors affecting mobile payment adoption and use", Journal of Banking and Financial Technology, Vol. 3 No. 1, pp. 43-57. Doi: 10.1007/s42786-018-00005-3

Parmigiani, A. and Rivera-Santos, M. (2015), "Sourcing for the base of the pyramid: constructing supply chains to address voids in subsistence markets", Journal of Operations Management, Vol. 33, pp. 60-70. Doi: 10.1016/j.jom.2014.10.007

Parthiban, R., Qureshi, I., Bandyopadhyay, S., Bhatt, B. and Jaikumar, S. (2020), "Leveraging ICT to overcome complementary institutional voids: insights from institutional work by a social enterprise to help marginalized", Information Systems Frontiers, Vol. 22 No. 3, pp. 633-653. Doi: 10.1007/s10796-020-09991-6

Patton, M.Q. (2014), Qualitative Research and Evaluation Methods: Integrating Theory and Practice, 4th ed., Sage Publications, Thousand Oaks, CA

Peng, M.W. and Heath, P.S. (1996), "The growth of the firm in planned economies in transition: institutions, organizations, and strategic choice", Academy of Management Review, Vol. 21 No. 2, pp. 492-528. Doi: 10.2307/258670

Pisano, G.P. and Teece, D.J. (2007), "How to capture value from innovation: shaping intellectual property and industry architecture", California Management Review, Vol. 50 No. 1, pp. 278-296. Doi: 10.2307/41166428

Potts, J., Dopfer, K. and Tulloh, B. (2025), "Explaining institutional technology", European Economic Review, Vol. 173, p. 104968. Doi: 10.1016/j.euroecorev.2025.104968

Puffer, S.M., McCarthy, D.J. and Jaeger, A.M. (2016), "Institution building and institutional voids: can Poland's experience inform Russia and Brazil?", International Journal of Emerging Markets, Vol. 11 No. 1, pp. 18-41. Doi: 10.1108/IJoEM-02-2015-0027

Pundziene, A. and Geryba, L. (2023), "Managing technological innovation: dynamic capabilities, collaborative innovation, and born-digital SMEs' performance", IEEE Transactions on Engineering Management, Vol. 71, pp. 6968-6981. Doi: 10.1109/TEM.2023.3281722

Qader, G., Junaid, M., Abbas, Q. and Mubarik, M.S. (2022), "Industry 4.0 enables supply chain resilience and supply chain performance", Technological Forecasting and Social Change, Vol. 185, p. 122026. Doi: 10.1016/j.techfore.2022.122026

Queiroz, M.M., Ivanov, D., Dolgui, A. and Fosso Wamba, S. (2022), "Impacts of epidemic outbreaks on supply chains: mapping a research agenda amid the COVID-19 pandemic through a structured literature review", Annals of Operations Research, Vol. 319 No. 1, pp. 1159-1196. Doi: 10.1007/s10479-020-03685-7

Ratislavová, K. and Ratislav, J. (2014), "Asynchronous email interview as a qualitative research method in the humanities", Human Affairs, Vol. 24 No. 4, pp. 452-460. Doi: 10.2478/s13374-014-0240-y

Saha, K., Malesios, C., Chowdhury, S. and Dey, P.K. (2023), "Impact of institutional voids on the performance of small and medium-sized enterprises", Journal of Strategy and Management, Vol. 16 No. 1, pp. 1-27. Doi: 10.1108/JSMA-07-2021-0155

Saunders, M., Lewis, P. and Thornhill, A. (2003), Research Methods for Business Students, 3rd ed., Financial Times/Prentice Hall, Harlow.

Shen, J., Sha, Z. and Wu, Y.J. (2020), "Enterprise adaptive marketing capabilities and sustainable innovation performance: an opportunity-resource integration perspective", Sustainability, Vol. 12 No. 2, p. 469. Doi: 10.3390/su12020469

Sinkovics, R.R., Penz, E. and Ghauri, P.N. (2008), "Enhancing the trustworthiness of qualitative research in international business", Management International Review, Vol. 48 No. 6, pp. 689-714. Doi: 10.1007/s11575-008-0103-z

Stonig, J., Schmid, T. and Müller-Stewens, G. (2022), "From product system to ecosystem: how firms adapt to provide an integrated value proposition", Strategic Management Journal, Vol. 43 No. 9, pp. 1927-1957. Doi: 10.1002/smj.3390

Strauss, A. and Corbin, J. (1990), Basics of Qualitative Research: Grounded Theory Procedures and Techniques, Sage, Newbury Park, CA.

Teece, D.J. (2007), "Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance", Strategic Management Journal, Vol. 28 No. 13, pp. 1319-1350. Doi: 10.1002/smj.640

Teece, D.J., Pisano, G. and Shuen, A. (1997), "Dynamic capabilities and strategic management", Strategic Management Journal, Vol. 18 No. 7, pp. 509-533. Doi: 10.1002/(SICI)1097-0266(199708)18:7<509:AID-SMJ882>3.0.CO;2-Z

Thoumrungroje, A. and Racela, O.C. (2022), "Linking SME international marketing agility to new technology adoption", International Small Business Journal, Vol. 40 No. 7, pp. 801-822. Doi: 10.1177/02662426211054651

Tolstoy, D., Nordman, E.R. and Vu, U. (2022), "The indirect effect of online marketing capabilities on the international performance of e-commerce SMEs", International Business Review, Vol. 31 No. 3, p. 101946. Doi: 10.1016/j.ibusrev.2021.101946

Tukamuhabwa, B., Stevenson, M. and Busby, J. (2017), "Supply chain resilience in a developing country context: a case study on the interconnectedness of threats, strategies and outcomes", Supply Chain Management: An International Journal, Vol. 22 No. 6, pp. 486-505. Doi: 10.1108/SCM-02-2017-0059

Tunisini, A., Harrison, D. and Bocconcelli, R. (2023), "Handling resource deficiencies through resource interaction in business networks", Industrial Marketing Management, Vol. 109, pp. 154-163. Doi: 10.1016/j.indmarman.2022.12.016

Vargo, S.L., Peters, L., Kjellberg, H., Koskela-Huotari, K., Nenonen, S., Polese, F. and Vaughan, C. (2023), "Emergence in marketing: an institutional and ecosystem framework", Journal of the Academy of Marketing Science, Vol. 51 No. 1, pp. 2-22. Doi: 10.1007/s11747-022-00849-8

Verbeke, A. and Fariborzi, H. (2019), "Managerial governance adaptation in the multinational enterprise: in honour of Mira Wilkins", Journal of International Business Studies, Vol. 50 No. 8, pp. 1213-1230. Doi: 10.1057/s41267-019-00251-7

Webb, J.W., Ireland, R.D., Hitt, M.A., Kistruck, G.M. and Tihanyi, L. (2011), "Where is the opportunity without the customer? An integration of marketing activities, the entrepreneurship

process, and institutional theory", Journal of the Academy of Marketing Science, Vol. 39 No. 4, pp. 537-554. Doi: 10.1007/s11747-010-0237-y

Webb, J.W., Khoury, T.A. and Hitt, M.A. (2020), "The influence of formal and informal institutional voids on entrepreneurship", Entrepreneurship Theory and Practice, Vol. 44 No. 3, pp. 504-526. Doi: 10.1177/1042258719830310

Ye, F., Ke, M., Ouyang, Y., Li, Y., Li, L., Zhan, Y. and Zhang, M. (2024), "Impact of digital technology usage on firm resilience: a dynamic capability perspective", Supply Chain Management: An International Journal, Vol. 29 No. 1, pp. 162-175. Doi: 10.1108/SCM-12-2022-0480

Yin, R.K. (2009), Case Study Research: Design and Methods, 4th ed., Sage Publications Ltd, Thousand Oaks, CA.

Yu, X., Cao, G. and Wang, X. (2025), "Entrepreneurial bricolage and disruptive innovation: the joint effect of learning from failure and institutional voids", R&D Management, Vol. 55 No. 4, pp. 1059-1077. Doi: 10.1111/radm.12736

Zoogah, D.B., Peng, M.W. and Woldu, H. (2015), "Institutions, resources, and organizational effectiveness in Africa", Academy of Management Perspectives, Vol. 29 No. 1, pp. 7-31. Doi: 10.5465/amp.2012.0033

Appendix A: Interview Questions

Q1. Please what type of business do you do?

Q2. Can you tell me a little story about how your business was formed?

Q3. When was it formed?

Q4. What is your most common source(s) of goods/raw materials?

Q5. Do you think that new technologies like, block chain technologies, artificial intelligence (AI) applications, internet of things (IoT), smart phones, online digital platforms, e.g., WhatsApp, Twitter, Instagram, etc., have any impact on the way you source your goods/raw materials from your suppliers? If yes, please can you explain what roles that new technologies play in this process?

Q6. Do you think that new technologies like, block chain technologies, artificial intelligence (AI) applications, internet of things (IoT), smart phones, online digital platforms, e.g., WhatsApp, Twitter, Instagram, etc., have any impact on the way you distribute the goods/services to your buyers? If yes, please can you explain the types of technologies involved and their roles in this process?

Q7. Do you think that new technologies have any impact on the way you run your businesses in general? If yes, can you please provide details and examples to support your answer?

Q8. Do you face any challenges in applying such new technologies to run your business? If yes, please can you give some examples to support your response?

Q9. What can you say about the best way to utilise modern technologies to run your type businesses?

Q10. Have you ever faced any specific challenge/problem in your business which you think is peculiar to your business environment? If yes, can you explain what this problem/challenge is?

Q11. How did you overcome this problem/challenge?

Q12. Can you think of any other area of your day-to-day business activity which you think that your environment impacts your business? Can you give me some examples to support your response?

Q13. Do you think that the cultural values and/or mindsets of the locals play any role in the way you run your business? If yes, can you give me some examples to support your answer?

Q14. Do you think that the ethos and values of your parent company or your overseas customers play any role in the way you run your business? If yes, can you give me some examples to support your answer?

Q15. Do you have a multicultural workforce? If yes, do you think that their diverse values and mindsets impact the way you run your business? If yes, can you give me some examples to support your answer?

Q16. Is there any other thing that you would like to add to what you have said already?