



Relational and Local Dynamics in Informal Supply Chains

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Abstract: Informal supply chains ensure the circulation of essential goods despite significant local constraints. In rural villages in sub-Saharan Africa, community networks organize the transport of basic foodstuffs despite impassable roads, distant markets, and seasonal supply fluctuations. In urban diasporas in North America and Europe, communities structure the transnational circulation of food, clothing, and cultural products, overcoming limitations in market access and regulatory frameworks. Drawing on the concept of social capital—structural, relational, and cognitive dimensions—the analysis highlights how actors anticipate needs, adjust operations in real time, and maintain the continuity of flows under variable conditions. The illustrations from rural and urban contexts broaden understanding of logistical mechanisms beyond conventional approaches centered on efficiency and optimization. Insights gained from these illustrations suggest pathways for hybrid supply systems that reconcile formal efficiency with local adaptability. By linking anthropology and supply chain management, the article provides an original perspective on how social relationships, local knowledge, and embedded practices shape resilience and operational agility in informal supply chains.

Keywords: Agility, Anthropology, Diasporas, Informal supply chains, Local knowledge, Resilience, Rural networks, Social capital, Urban networks

INTRODUCTION

In a remote village in northern Tanzania, a sack of maize travels along muddy paths, carried first by a neighbor, then by a cooperative member, before reaching a family several dozen kilometers away. No formal transporters, GPS systems, or government infrastructure participate in its movement. Yet the maize reaches those who need it most, even during the height of the rainy season, when most roads become impassable. Such scenes, common across Africa, reveal highly effective organizations operating entirely outside formal structures. Contrary to dominant narratives in logistics, which emphasize optimization and efficiency, informal local networks focus on responsiveness, social trust, and relational obligations rather than rigid schedules or cost minimization [17]. These observations raise critical questions: how do communities with limited logistical resources coordinate complex flows of essential goods? What mechanisms allow them to maintain continuity when conditions fluctuate unpredictably? How can informal arrangements inform our understanding of the limits of conventional logistics? Despite decades of supply chain research (for a review, see Sadeghi Asl et al. [29]), scholars still struggle to understand the invisible, socially embedded networks that sustain survival and cohesion in vulnerable populations. This article addresses that gap by analyzing coordination strategies and social dynamics that support resilience, showing how human relationships, local knowledge, and adaptive practices ensure reliable distribution under variable and challenging circumstances.

Exploring informal supply chains reveals a hidden dimension where human relationships and local knowledge replace formal contracts and hierarchies. Unlike conventional systems, these networks depend on interactions among families, neighbors, community associations, and diasporas, creating structures that adapt to environmental, economic, or regulatory shocks [15]. Flexibility and responsiveness follow a logic distinct from classical supply chain theories. Performance results not from predictive algorithms or centralized control but from distributed intelligence, mutual accountability, and practices rooted in local culture. Examination of goods in rural villages of sub-Saharan Africa and urban diasporas in North America and Europe illustrates diverse informal logistics strategies and highlights the central role of social capital—structural, relational, and cognitive—in coordinating operations. This perspective frames logistics as a socially mediated process, where transported goods convey trust, obligations, and collective knowledge, reinforcing both operational continuity and social cohesion. Insights drawn from these cases carry major implications for researchers seeking to broaden supply chain theory and for practitioners designing hybrid models that reconcile formal efficiency with local adaptability. Informal supply chains are far from marginal anomalies; they sustain communities, preserve threatened cultural practices, and challenge conventional notions of logistics performance, demonstrating that human networks and contextual intelligence can match or surpass technology and infrastructure in ensuring reliable distribution under fluctuating conditions.

CONCEPTUAL FOUNDATIONS

No supply chain can be reduced to the mere movement of goods governed by formal rules and procedures designed to maximize customer satisfaction. Operations rely fundamentally on human interactions, local knowledge, and implicit norms that guide decisions, adjust flows in real time, and maintain the availability of resources under unpredictable conditions. Across diverse contexts—rural villages in sub-Saharan Africa or urban diasporas in North America and Europe—informal supply chains ensure redistribution and resilience, highlighting an invisible yet decisive dimension of logistics. Approaches focusing solely on optimization, planning, and technological solutions fail to capture the centrality of trust, reciprocal obligations, and tacit coordination in operational performance. Social capital theory offers a robust framework for analysis, distinguishing structural, relational, and cognitive dimensions that shape coordination, trust, and adaptability. Anthropology complements this perspective by revealing how cultural norms, local practices, and shared representations structure the circulation of goods. Recognizing these social mechanisms demonstrates that agility emerges as much from relationships, local know-how, and embedded practices as from technical systems alone, challenging conventional assumptions about what drives supply chain performance and resilience.

Anthropology of Flow

Conventional supply chains operate through formal management systems structured to optimize the movement of goods from tier-2 suppliers to tier-1 suppliers, manufacturers, retailers—both online and offline—and finally to consumers. These systems integrate planning, monitoring, and control mechanisms, relying on advanced technologies such as transportation management systems (TMS), warehouse management systems (WMS), and

ERP software to coordinate activities across all participants [6]. Their performance depends on strict procedures, precise documentation, contractual agreements, and adherence to quality standards, all aimed at reducing costs and lead times while ensuring traceability and safety. Such systems function effectively in stable environments with reliable infrastructure and clear regulatory frameworks. Their efficiency deteriorates rapidly when instability, weak infrastructure, or political constraints emerge, as documented in sub-Saharan Africa and Southeast Asia [25]. In these contexts, formal procedures often prove rigid, costly, or poorly adapted, compromising access to essential goods. Limitations of conventional supply chains cannot be attributed solely to technical factors; the trust, transparency, and responsiveness of decision-makers significantly shape outcomes [35]. Sophisticated tools and streamlined structures cannot fully compensate when formal systems confront the social and cultural complexity of local communities, highlighting the interplay between technical optimization and human judgment in sustaining supply continuity.

Faced with these constraints, informal networks emerge as essential mechanisms maintaining the flow of goods within communities. Often referred to as “*social logistics*,” they rely on family, friendship, and community ties, facilitating circulation based on trust, reciprocity, and solidarity [1][17]. Without formal contracts or centralized oversight, local actors take responsibility for collection, transport, and redistribution according to shared expectations and cultural norms. Anthropological studies demonstrate how rituals, values, and daily practices shape these supply chains, enabling rural or marginalized populations to sustain flows despite absent formal structures [9][31]. Historical and contemporary evidence indicates that informal arrangements frequently respond more effectively to local needs than conventional systems, particularly during social or geopolitical crises. Communities implement barter systems, home delivery organized by trusted individuals, and redistribution governed by reputation and social obligations, generating resilience rarely matched by formal frameworks [25]. Coordination combines technical improvisation, economic pragmatism, and social cooperation, revealing the layered complexity of these networks. Observation underscores the pivotal role of social capital, local knowledge, and tacit routines in preserving continuity and adaptability. Table 1 synthesizes research contrasting conventional and informal supply chain profiles, emphasizing the need for parallel, rather than isolated, analysis.

Table 1: Supply Chain Profiles

Dimension	Conventional supply chains	Informal supply chains
<i>Structure and coordination</i>	Hierarchical and centralized control	Flexible, trust-based networks
<i>Technology and processes</i>	ERP, TMS, WMS	Minimal tech, relies on local routines
<i>Adaptability</i>	Slow response to disruption	Rapid, socially coordinated
<i>Scope and reach</i>	Global or regional	Local or diaspora-based
<i>Value focus</i>	Efficiency, cost reduction, traceability	Resilience, continuity, flexibility

Source: The author.

Coordination in Practice

Informal supply chains demonstrate exceptional flexibility and rapid responsiveness to changes in demand and interruptions in goods movement. Unlike conventional systems, operations rely on interpersonal relationships, tacit norms, and shared routines, with each participant adapting actions according to local information and interactions with partners [33]. Near-instantaneous redistribution allows products to reach areas affected by supply disruptions, shortages, or seasonal shifts. In Indian urban food markets, local retailers reorganize delivery circuits daily based on inventory levels, weather forecasts, and consumer purchasing patterns, ensuring perishable goods arrive before expiration even during the COVID-19 pandemic [13]. Routes and quantities are adjusted without centralized supervision, supported by continuous communication among suppliers, carriers, and retailers grounded in trust and local knowledge. These arrangements maintain steady flows despite limited infrastructure, insufficient storage, and urban congestion, reflecting operational agility that often surpasses formal supply chains. Examined through the lens of strategic supply chain management, such networks reveal how organizational design and configuration decisions directly affect performance and resilience [20]. Success depends equally on adaptive human judgment and effective deployment of material resources, enabling communities to sustain continuous flows and optimize available assets under highly dynamic conditions. These practices illustrate how social and technical elements intertwine to preserve operational stability in complex environments.

Table 2: From Social Capital to Operational Resilience and Agility in Informal Supply Chains

Dimension	Key features in informal supply chains	Operational examples
Dimensions of social capital		
<i>Structural</i>	Dense networks connect multiple actors, enabling rapid identification of needs and swift redistribution of goods.	Actors coordinate deliveries, redirecting items where they are most needed.
<i>Relational</i>	Coordination relies on trust, reciprocity, and tacit agreements, allowing actors to adjust actions without formal hierarchy.	Daily negotiations and information sharing allow conflicts to be resolved and stock to be reallocated smoothly.
<i>Cognitive</i>	Shared norms, values, and mental models facilitate implicit communication and anticipation of emerging needs.	Participants anticipate shifts in demand, adapting stock and routes instinctively to ensure timely delivery.
Operational manifestations of social capital		
<i>Adaptability</i>	Routes, quantities, and schedules are adjusted in real time, responding dynamically to disruptions or changing demand.	Perishable goods are rerouted, quantities reallocated, and delivery schedules modified to address shortages, weather events, or sudden market changes.
<i>Resilience and agility</i>	Continuous flow is maintained despite limited infrastructure, congestion, or disruptions, leveraging local knowledge and proactive problem-solving.	Goods keep moving efficiently even during congestion or unexpected disruptions through flexible coordination and rapid decision-making.

Source: The author.

Social capital theory offers a powerful framework for analyzing informal supply chains through three dimensions: structural, relational, and cognitive [21], summarized in Table 2 along with operational manifestations. The structural dimension examines the density, stability, and configuration of ties among actors, determining access to information and resource circulation. Multiple overlapping relationships allow rapid responses to unforeseen events and facilitate the reallocation of products to where they are most needed. The relational dimension emphasizes trust, reciprocity, and mutual obligations guiding cooperation. Coordination proceeds without formal hierarchy, relying on tacit agreements and repeated practices, which reinforce resilience when disruptions occur. The cognitive dimension encompasses shared norms, values, and mental models, supporting implicit communication and anticipation of individual requirements, thus reducing adjustment time for flows within the network. Informal markets illustrate these dynamics, as street vendors employ social proximity and local knowledge to exchange information and resources, optimizing routing and distribution of goods [17]. These interactions highlight the central research question: *How social capital influences resilience and agility in informal supply chains, and whether effects differ between rural and urban contexts?* Understanding such mechanisms underscores the critical role of human relationships and shared cognition in sustaining operational performance absent formal structures.

ILLUSTRATIONS

Informal supply chains reveal their full significance when analyzed through concrete practices rather than abstract concepts. In sub-Saharan African villages and Western urban diasporas, local networks perform functions that extend beyond compensating for insufficient infrastructure or market gaps. They organize the circulation of essential goods according to implicit social rules and accumulated local knowledge. In rural areas, extended families, village associations, and producer groups manage the collection, storage, and redistribution of food despite the distance or fragmentation of consumer markets. Urban diasporic communities coordinate the import and distribution of food, clothing, and cultural products that conventional channels often cannot provide. These operations depend on trust, reputation, and the transmission of know-how across generations. Contrasting rural and urban contexts demonstrates how informal supply chains achieve flexibility, rapid responsiveness, and continuity of flows while reinforcing social cohesion and shared cultural practices. Social capital theory provides a strong analytical lens by identifying structural, relational, and cognitive dimensions that shape coordination and performance. Analysis of both rural and urban networks highlights the diversity of informal supply chain arrangements and illustrates how human interactions and local knowledge directly influence resilience. Operational effectiveness relies not only on physical resources but also on embedded social mechanisms and expertise, which enable communities to maintain continuity and adapt successfully to challenging conditions.

Rural Networks

In rural areas of sub-Saharan Africa, communities assume responsibility for transporting essential goods due to weak or absent formal transport and distribution infrastructure. Roads often become impassable during the rainy season, rail networks remain limited, and

markets lie far from villages. Extended families, neighbors, producer groups, and village associations coordinate the collection, storage, and redistribution of staple crops such as maize, cassava, millet, and vegetables [5]. These arrangements constitute alternative logistics systems rather than mere responses to infrastructural gaps, relying on trust, social obligations, and detailed knowledge of the local environment [19]. Goods move according to climatic conditions, local availability, and household needs rather than following fixed routes. In Ghana and Tanzania, women's committees or religious associations organize collective transportation between villages, effectively acting as local procurement hubs [26]. The flexible and adaptive nature of these informal supply chains contrasts sharply with the rigidity of conventional systems, illustrating rural communities' ability to maintain continuity and respond to unpredictable challenges. Operational effectiveness depends as much on social organization, local knowledge, and community trust as on physical infrastructure. Examining these networks offers insights into adaptive supply chain management in rural contexts, showing how decentralized coordination and embedded expertise sustain the circulation of essential goods under difficult conditions [30].

Informality in these supply chains stems not only from the need to address challenging living conditions but also from the integration of economic, social, and anthropological dimensions. The circulation of goods extends beyond market transactions, encompassing exchanges of recognition, reciprocity, and solidarity [24]. Cassava transported between villages conveys support among allied families, honors symbolic debts, or anticipates future reciprocal actions. These relational connections confer high social density on informal supply chains, transforming goods into mediators of collective cohesion and long-term stability [22]. Embedded social structures enhance resilience; during crises, including the COVID-19 pandemic in Kenya, local networks maintained operational flows by mobilizing community members, adjusting market circuits, and leveraging local solidarity [3]. Efficiency cannot be measured solely by the volume of goods or speed of transactions but must also reflect the preservation of a social fabric that sustains ongoing exchanges [2]. Village practices exemplify pragmatic responses to logistical constraints and the reinforcement of organizational modes rooted in local culture. By integrating social norms and mutual obligations into operational processes, these systems demonstrate how human relationships and collective knowledge compensate for infrastructural limitations while maintaining continuity, adaptability, and trust across communities.

Urban Networks

In major Western cities, Latin American and African diasporas have developed sophisticated informal networks to supply food, clothing, and cultural goods to their communities. These networks transport commodities often unavailable through conventional commercial channels, including items linked to religious and cultural practices. In New York, Paris, and London, families and community associations organize the import of food products, handicrafts, and clothing directly from countries of origin, relying on long-standing relationships of trust with intermediaries and local traders [27]. Comparable practices occur in Marseille, southern France, where female Senegalese traders operate transnational circuits combining suitcase trading, street markets, and community credit networks grounded in reputation and solidarity [4]. Unlike conventional supply chains, these urban networks exhibit high flexibility, adapting quantities and delivery schedules to match

shifting demand or import restrictions. Their performance depends on intimate knowledge of suppliers, timely access to informal market information, and the personal commitment of community members, sustaining continuous flows despite complex customs regulations, market volatility, and challenges arising from cultural and linguistic diversity [8]. The informal supply chains demonstrate that human relationships, embedded trust, and social capital enable diasporic communities to maintain adaptive and resilient supply chains, providing essential goods while simultaneously reinforcing social cohesion and cultural continuity. By integrating operational efficiency with social mechanisms, they illustrate how community-driven logistics achieve outcomes beyond the reach of conventional systems.

Anthropological analysis highlights the pivotal role of social capital in shaping the structure and performance of these informal urban supply chains. The structural dimension appears in the density and strength of ties among families, associations, and traders, which facilitate access to resources and enable rapid responses to demand fluctuations, even under high-pressure conditions [18]. The relational dimension relies on trust, reciprocity, and reputation, allowing coordination without centralized oversight and providing mechanisms to manage unexpected events. Putnam [28] shows that even in highly individualistic and socially fragmented contexts, social capital remains essential for cooperation and informal coordination. The cognitive dimension includes shared norms, values, cultural practices, and tacit knowledge, encompassing traditional food preparation, implicit communication, and the organization of festivals and rituals, which support anticipation of community needs and maintain cohesion across generations through a climate of trust [12]. Urban diasporic networks demonstrate resilience and agility, sustaining continuous flows despite regulatory hurdles, variable demand, and geographically dispersed participants. They strengthen social bonds and reinforce cultural identity, illustrating the interdependence of logistical efficiency and community cohesion. Collectively, these networks exemplify informal supply chains that integrate adaptability, operational performance, and embedded local practices, showing that social capital, trust, and human expertise constitute the backbone of resilient urban supply systems.

DISCUSSION

A comparative analysis of informal supply chains highlights both shared features and context-specific differences. In rural sub-Saharan African communities, essential goods circulate through village and family networks capable of rapid redistribution in response to disruptions, seasonal fluctuations, or climatic hazards [5][26]. Distribution routes remain flexible rather than fixed, relying on local knowledge and trusted relationships to coordinate collection, storage, and delivery. In urban diasporas, food, clothing, and cultural goods are transported from countries of origin through intermediaries and social networks built over generations [4][27]. Coordination in both contexts depends on social capital, although the mechanisms differ: geographic proximity and direct ties predominate in rural villages, whereas shared culture and cognitive capital guide urban networks. These systems provide adaptability, continuity of supply, and resilience, while dependence on interpersonal relationships introduces risks, including favoritism and uneven access [36]. Hofbauer & Sangl [14] note that formal logistics often contribute limited value; performance derives primarily from the capacity to align operations with local realities. By strategically combining human relationships, tacit knowledge, and organizational routines, hybrid supply chains emerge

that integrate formal planning with contextual adaptation. Such systems sustain operational efficiency while maintaining responsiveness and agility, demonstrating that socially embedded practices are essential to the continuity of flows in dynamic environments.

An interpretation grounded in social capital theory and anthropology underscores how culture, norms, and social ties shape logistics performance in tangible but frequently underestimated ways. The structural, relational, and cognitive dimensions of social capital explain how actors anticipate needs, share resources, interpret local signals, and adjust flows without centralized oversight. In rural villages, dense and overlapping ties among stakeholders facilitate information exchange and activate community routines to manage unforeseen events, while reinforcing social cohesion and collective resilience [19]. Urban diasporas similarly mobilize tacit knowledge and shared cultural norms to sustain supplies over long distances and coordinate complex operations, including cross-border logistics, adapting practices to regulatory and market constraints. Research on adaptive logistics emphasizes distributed collective intelligence, which enables human interactions to respond efficiently to uncertainty, demand fluctuations, and unexpected obstacles while optimizing limited resources [7][23][32]. Fusari [11] stresses that understanding a society requires attention to structural trends, institutions, and values rather than ad hoc observation. These cases demonstrate that logistics efficiency depends as much on social structures, trust, and embedded knowledge as on material mechanisms, confirming that decentralized coordination and culturally grounded practices are critical for sustained performance and resilience under complex conditions.

For practitioners, lessons from rural villages and urban diasporas provide actionable insights. Observed capacity to respond rapidly to changing conditions can inform logistics strategies that integrate social capital, local knowledge, and tacit routines while retaining the advantages of formal systems [16]. Leveraging interpersonal relationships, dense networks, and shared cognitive norms supports continuity of flows, reduces disruptions, and improves response to local crises [34]. Hybrid supply chains combining formal planning with context-sensitive adjustments allow technology and automated systems to operate alongside field expertise. Caution is necessary, however, as reliance on human relationships and cultural norms carries risks, and hybrid designs must respect the specificities of each context. Recognizing social and cognitive dimensions strengthens supply chains, enhances responsiveness, and fosters trust among partners. Operational success depends not solely on infrastructure quality or advanced technologies but also on the management of human relationships and embedded knowledge. Evangelista et al. [10] show that in Finnish small firms, knowledge-based human resource management directly improves logistics capabilities. These findings confirm that effective performance requires a careful balance of human skills, local expertise, and technological tools, highlighting the central role of socially grounded practices in sustaining adaptive and reliable supply chains under complex conditions.

CONCLUSION

Informal supply chains illustrate the central role of social capital in sustaining logistical resilience and adaptability. Unlike conventional supply systems, they depend on dense interpersonal networks, trust, and shared tacit knowledge to maintain continuous flows of essential goods. The structural, relational, and cognitive dimensions of social capital provide

a robust framework for understanding how rural communities efficiently redistribute food and other necessities, and how urban diasporas coordinate the long-distance transport of culturally specific items. Insights from anthropology, supply chain management, and social capital theory reveal that operational performance and human interactions are deeply intertwined in complex and dynamic environments. The article highlights the significance of distributed collective intelligence, showing that logistical efficiency depends not only on technological tools but also on embedded social norms, reciprocal obligations, and established routines. Evidence from both rural and urban networks demonstrates that informal supply chains often surpass conventional systems in flexibility and responsiveness, while reinforcing social cohesion and sustaining shared organizational culture. These findings address the central research question by confirming that social capital drives the resilience and adaptability of informal supply chains, enabling them to function effectively under uncertain, volatile, and resource-limited conditions. By emphasizing the interdependence of social structure and operational outcomes, the study underscores the importance of considering human and relational factors alongside technical mechanisms when designing or evaluating supply chains in varied contexts.

The study presents limitations inherent to research on informal supply chains. First, empirical data from sub-Saharan rural communities and Western urban diasporas may not fully transfer to other socio-economic or cultural environments, as the density, quality, and norms of social relationships can significantly influence operational dynamics and resilience. Second, reliance on qualitative methods and secondary sources restricts the ability to quantitatively measure logistics performance or to establish precise correlations between social capital and supply chain outcomes. Available documentation tends to overrepresent highly visible practices, leaving more discreet networks underexplored. Third, focusing on local and diasporic supply chains excludes other informal logistics forms in specific sectors, limiting the generalizability of conclusions. Fourth, while interpretations draw on social capital theory, they rely on assumptions about human behavior and cultural norms, potentially underestimating structural, regulatory, or economic factors external to the communities studied. Therefore, conclusions remain indicative and exploratory, offering a conceptual framework rather than a definitive model. Verification across diverse geographic, cultural, and industrial contexts is necessary to enhance external validity and to refine understanding of the interplay between social capital, human practices, and logistical performance.

The identified limitations suggest clear avenues for further research. A first research avenue involves comparative studies across continents or industries to examine how social capital translates into operational outcomes, considering network density, intermediary roles, and intensity of tacit coordination. Such studies would clarify when informal supply chains complement or outperform conventional systems. A second research avenue entails integrating quantitative methods that combine flow data with performance indicators, enabling more precise assessment of social capital's impact on supply chain resilience and agility while reducing reliance on qualitative observations. A third research avenue focuses on hybridizing informal supply chains with digital technologies. IoT sensors, AI, and collaborative platforms could provide insights into how distributed collective intelligence is enhanced through shared data, while maintaining the flexibility and responsiveness inherent to informal networks. Pursuing these directions can support the development of hybrid models capable of sustaining flows across diverse environments, reinforcing the central role

of social capital in operational performance. For scholars and practitioners alike, these research directions are urgent, offering actionable guidance for designing supply chains that integrate efficiency, adaptability, and social embeddedness, ultimately fostering resilient, responsive, and context-aware logistics systems.

REFERENCES

- [1]. Abushaikha, I., Wu, Z., & Khoury, T. (2021). Towards a theory of informal supply networks: An exploratory case study of the Za'atari refugee camp. *Journal of Operations Management*, 67(7), pp.853–881.
- [2]. Berry, S. (1993). *No condition is permanent: The social dynamics of agrarian change in Sub-Saharan Africa*. Madison (WI): University of Wisconsin Press.
- [3]. Bitzer, V., Kruijssen, F., Mugisha, J., Waswa, L., Aliso, J., & Nakazzi, B. (2024). Vulnerability and resilience among farmers and market actors in local agri-food value chains in the face of COVID-19 disruptions: Findings from Uganda and Kenya. *Food Security*, 16(1), pp.185–200.
- [4]. Blanchard, M. (2018). *Travail, sexualité et migration: Les commerçantes sénégalaises à Marseille*. Aix-en-Provence: Presses Universitaires de Provence.
- [5]. Bryceson, D.-F., Bradbury, A., & Bradbury, T. (2008). Roads to poverty reduction? Exploring rural roads' impact on mobility in Africa and Asia. *Development Policy Review*, 26(4), pp.459–482.
- [6]. Christopher, M. (2022). *Logistics and supply chain management* (6th ed.). London: Pearson Education.
- [7]. Cinti, A., Marcone, M.-R., Sabatini, A., & Temperini, V. (2025). Enhancing supply chain resilience through the supply network approach. *Journal of Business & Industrial Marketing*, 40(4), pp.858–876.
- [8]. Cohen, J., & Sirkeci, I. (2011). *Cultures of migration: The global nature of contemporary mobility*. Austin (TX): University of Texas Press.
- [9]. Curtin, P. (1984). *Cross-cultural trade in world history*. Cambridge: Cambridge University Press.
- [10]. Evangelista, P., Kianto, A., Hussinki, H., Vanhala, M., & Nisula, A.-M. (2023). Knowledge-based human resource management, logistics capability, and organizational performance in small Finnish logistics service providers. *Logistics*, 7(1), Article 12.
- [11]. Fusari, A. (2018). Methodological problems of the social sciences: Misunderstandings and clarifications. *Archives of Business Research*, 6(5), pp.178-197.
- [12]. Fukuyama, F. (1995). *Trust: The social virtues and the creation of prosperity*. New York: The Free Press.
- [13]. Gupta, N., Vemireddy, V., & Shaw, A. (2023). Food supply chains and resilience to shocks: Evidence from India's COVID-19 lockdown. *Applied Economic Perspectives & Policy*, 45(4), pp.1801–1834.
- [14]. Hofbauer, G., & Sangl, A. (2018). Considerations to rearrange the value chain. *Archives of Business Research*, 6(4), pp.104-114.
- [15]. Horak, S., Klein, A., Ahlstrom, D., & Li, X. (2024). Resilience or decline of informal networks? Examining the role of trust context in network societies. *International Business Review*, 33(4), Article 102301.

- [16]. Johnson, N., Elliott, D., & Drake, P. (2013). Exploring the role of social capital in facilitating supply chain resilience. *Supply Chain Management: An International Journal*, 18(3), pp.324–336.
- [17]. Lee Park, C., Fracarolli Nunes, M., & Machuca, J. (2023). Social sustainability in supply chains: The role of local practices and informal networks. *International Journal of Physical Distribution & Logistics Management*, 53(1), pp.35–61.
- [18]. Lin, N. (2002). *Social capital: A theory of social structure and action*. Cambridge: Cambridge University Press.
- [19]. Meagher, K. (2010). *Identity economics: Social networks and the informal economy in Nigeria*. Suffolk: Boydell & Brewer.
- [20]. Naeem, H.-M., & Hussain, N.-M. (2015). Strategic management and supply chain management in organizational theory perspective: A synergistic approach. *Archives of Business Research*, 3(5), pp.25–33.
- [21]. Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. *Academy of Management Review*, 23(2), pp.242–266.
- [22]. Obonyo, E., Ndiritu, W., & Formentini, M. (2025). Interweaving bonds: Examining trust, commitment and social sustainability in the agri-food supply chain in Kenya. *Management Matters*, 22(1), pp.19–34.
- [23]. Ogulin, R., Selen, W., & Ashayeri, J. (2012). Determinants of informal coordination in networked supply chains. *Journal of Enterprise Information Management*, 25(4), pp.328–348.
- [24]. Olivier de Sardan, J.-P. (1995). *Anthropologie et développement: Essai en socio-anthropologie du changement social*. Paris: Karthala.
- [25]. Parrot, L., Biard, Y., Klaver, D., Kabré, E., & Vannière, H. (2025). The impact of the informal sector on supply chains in Africa. *Supply Chain Forum: An International Journal*, 26(2), pp.154–164.
- [26]. Porter, G. (2014). Transport services and their impact on poverty and growth in rural sub-Saharan Africa: A review of recent research and future research needs. *Transport Reviews*, 34(1), pp.25–45.
- [27]. Portes, A. (1997). Immigration theory for a new century: Some problems and opportunities. *International Migration Review*, 31(4), pp.799–825.
- [28]. Putnam, R. (2020). *Bowling alone: The collapse and revival of American community* (2nd ed.). New York: Simon & Schuster.
- [29]. Sadeghi Asl, R., Bagherzadeh Khajeh, M., Pasban, M., & Rostamzadeh, R. (2023). A systematic literature review on supply chain approaches. *Journal of Modelling in Management*, 18(2), pp.372–415.
- [30]. Tacoli, C. (2002). *Changing rural-urban interactions in sub-Saharan Africa and their impact on livelihoods: A summary*. Working Paper No. 7. London: International Institute for Environment & Development.
- [31]. Trivellato, F. (2009). *The familiarity of strangers: The Sephardic diaspora, Livorno, and cross-cultural trade in the early modern period*. New Haven (CT): Yale University Press.
- [32]. Tukamuhabwa, B., Stevenson, M., & 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*, 22(6), pp.486–505.

- [33]. Wang, B., Childerhouse, P., Kang, Y., Huo, B., & Mathrani, S. (2016). Enablers of supply chain integration: Interpersonal and interorganizational relationship perspectives. *Industrial Management & Data Systems*, 116(4), pp.838–855.
- [34]. Wieland, A., & Wallenburg, C.-M. (2013). The influence of relational competencies on supply chain resilience: A relational view. *International Journal of Physical Distribution & Logistics Management*, 43(4), pp.300–320.
- [35]. Ye, Y., Yang, L., Huo, B., & Zhao, X. (2023). The impact of supply chain social capital on supply chain performance: A longitudinal analysis. *Journal of Business & Industrial Marketing*, 38(5), pp.1176–1190.
- [36]. Zheng, Y., Yang, Z., Jin, C., Qi, Y., & Liu, X. (2017). The influence of emotion on fairness-related decision making: A critical review of theories and evidence. *Frontiers in Psychology*, 8, Article 1592.