



The Political Economy of Substandard and Falsified Medicines: A Theoretical Framework for Supply Chain Analysis in the Greater Horn of Africa

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Abstract

This article proposes a theoretical framework for analysing the political economy of substandard and falsified (SF) medical products within the supply chains of the Greater Horn of Africa. It contends that prevailing regulatory and public health approaches, which predominantly emphasise technical capacities, fail to engage with the entrenched political and economic structures that perpetuate this crisis. The objective is to delineate a novel analytical lens that systematically examines the interplay between state fragility, informal economies, and vested commercial interests facilitating the infiltration of SF medicines. Methodologically, the framework synthesises concepts from political economy, institutional analysis, and supply chain governance, drawing upon documented empirical evidence and regional case studies from 2021 to 2026. The central thesis posits that the proliferation of SF medicines constitutes not merely a regulatory failure but a symptom of deeper systemic pathologies, including institutionalised corruption, transnational illicit trade networks, and the political marginalisation of specific regions. The framework's significance lies in its capacity to inform more effective, context-sensitive interventions by shifting the analytical focus from downstream detection towards upstream political and economic drivers. It advocates for integrated strategies that strengthen public accountability, enhance regional cooperation, and promote equitable access to quality-assured medicines as foundational pillars of health security across the continent.

Keywords: *Political economy, Substandard and falsified medicines, Supply chain analysis, Greater Horn of Africa, Theoretical framework, Health systems governance, Pharmaceutical regulation*

INTRODUCTION

The proliferation of substandard and falsified (SF) medical products represents a critical public health and security challenge, particularly within the complex supply chains of the Greater Horn of Africa ([Abourabi, 2024](#)). Existing literature substantiates the scale of the issue, with systematic reviews indicating a significant prevalence of SF medicines across the continent and highlighting

systemic regulatory gaps ([Asrade Mekonnen et al., 2024](#); [Ngum et al., 2025](#)). Research increasingly frames this not merely as a regulatory failure but as a problem deeply embedded in political economy, where governance structures, economic incentives, and supply chain vulnerabilities intersect ([Gofie, 2025](#); [Iazzolino & Musa, 2024](#)). Studies on specific regions, including Morocco, affirm that supply chain weaknesses and healthcare system challenges are primary conduits for SF products ([Chabalenge et al., 2025](#); [Huleatt, 2025](#)). Furthermore, analyses of recalls within legitimate channels and investigations into supply chain risks underscore the pervasive nature of the threat even within formal systems ([Fryze & Naughton, 2025](#); [Makan & Mageto, 2025](#)).

However, a clear research gap persists ([Ashuro & Kant, 2025](#)). While the broader African context and supply chain mechanics are explored, the specific political economy dynamics—the interplay of state capacity, informal economies, transnational networks, and conflict—within the Greater Horn of Africa remain underexamined ([Asrade Mekonnen et al., 2024](#)). Some studies on the Horn focus on technical supply chain innovations or circular economy models, which, while valuable, do not fully account for these underlying socio-political drivers ([Ashuro & Kant, 2025](#); [Kant et al., 2025](#); [Sharma & Kant, 2025](#)). Conversely, other research points to divergent outcomes, suggesting that contextual factors such as local governance and regional connectivity critically influence the SF trade’s character and resilience ([Selçuk et al., 2025](#); [Warasthe, 2024](#)). This article addresses this gap by providing a dedicated political economy and supply chain analysis of SF medical products in the Greater Horn of Africa, moving beyond generic prevalence studies to elucidate the region-specific mechanisms that sustain this illicit market.

THEORETICAL BACKGROUND

The political economy of substandard and falsified (SF) medical products in the Greater Horn of Africa is characterised by complex supply chain vulnerabilities and governance challenges ([Ashuro et al., 2025](#)). Research consistently identifies weak regulatory oversight, fragmented logistics, and entrenched economic incentives as key drivers of this illicit trade ([Asrade Mekonnen et al., 2024](#); [Chabalenge et al., 2025](#)). Studies focusing on specific national contexts, such as Morocco, affirm the relevance of these political economy factors, yet often leave the precise contextual mechanisms—such as the interplay between informal economies and formal regulatory institutions—insufficiently resolved ([Huleatt, 2025](#); [Ngum et al., 2025](#)). This gap underscores the need for a more nuanced, region-specific analysis.

Complementary evidence reinforces this perspective ([Asrade Mekonnen et al., 2024](#)). Investigations into supply chain risks and recalls within legitimate distribution networks highlight systemic weaknesses that SF products exploit ([Fryze & Naughton, 2025](#); [Makan & Mageto, 2025](#)). Furthermore, analyses of multi-stakeholder collaboration and technological innovation point to potential mitigation strategies, yet their effectiveness is mediated by local political and economic conditions ([Kant et al., 2025](#); [Sharma & Kant, 2025](#); [Ashuro et al., 2025](#)). Conversely, other research indicates contextual divergence, suggesting that outcomes vary significantly based on factors such as regional connectivity, extra-regional relations, and the specific nature of healthcare system challenges ([Iazzolino & Musa, 2024](#); [Gofie, 2025](#); [Selçuk et al., 2025](#)). This divergence confirms that a uniform

theoretical explanation is inadequate; the political economy must be analysed through the prism of localised supply chain structures and governance realities. This theoretical foundation informs the practical analytical framework developed in the subsequent section.

FRAMEWORK DEVELOPMENT

Research on the political economy of substandard and falsified (SF) medical products within African supply chains provides a critical, yet incomplete, foundation for this analysis ([Gomes et al., 2024](#)). Studies focusing on specific national or sub-regional contexts consistently identify systemic vulnerabilities but often lack a fully integrated political economy perspective that explains the underlying mechanisms. For instance, investigations into pharmacovigilance in Morocco ([Huleatt, 2025](#)) and healthcare system challenges across Africa ([Chabalenge et al., 2025](#)) confirm the pervasive threat of SF medical products and highlight regulatory and supply chain weaknesses. Similarly, analyses of supply chain integration in emerging markets ([Kant et al., 2025](#)) and systematic reviews of prevalence in West and Central Africa ([Ngum et al., 2025](#)) reinforce the scale of the problem. These works arrive at complementary conclusions regarding the role of fragmented governance and infrastructural deficits ([Fryze & Naughton, 2025](#); [Makan & Mageto, 2025](#); [Warasthe, 2024](#)).

However, this evidence frequently treats political economy factors—such as rent-seeking, informal trade networks, and geopolitical influences—as peripheral rather than central explanatory variables ([Duffield & Stockton, 2023](#)). This results in a gap concerning how these factors directly shape the operation and resilience of illicit supply chains ([Kant et al., 2025](#)). Some scholarship points to this complexity, noting the significant role of multi-stakeholder collaboration ([Ashuro et al., 2025](#)) and extra-regional relations ([Gofie, 2025](#)) in the Horn of Africa. Conversely, other research presents divergent outcomes, such as the focus on digital marketplace risks ([Selçuk et al., 2025](#)) or ecological constraints on innovation ([Maharajh, 2025](#)), underscoring the contextual specificity of the SF medical product trade. This divergence indicates that a singular framework is insufficient; the political economy drivers in the Greater Horn of Africa are distinct from those in other regions ([Asrade Mekonnen et al., 2024](#); [Iazzolino & Musa, 2024](#)). Consequently, while existing literature establishes the salience of supply chain analysis, it leaves open key questions about the specific political and economic structures that enable SF medical products to flourish within the Greater Horn of Africa, a gap this article seeks to address.

THEORETICAL IMPLICATIONS

Research on substandard and falsified (SF) medical products in Africa consistently underscores the centrality of political economy factors, yet the specific mechanisms within the Greater Horn of Africa require clearer articulation ([Fryze & Naughton, 2025](#)). Studies in Morocco highlight regulatory and supply chain vulnerabilities relevant to the region ([Huleatt, 2025](#); [Chabalenge et al., 2025](#)). However, as these investigations do not fully resolve the contextual mechanisms—such as informal governance structures, conflict economies, and regional trade dynamics—they leave key explanatory gaps this article addresses ([Huleatt, 2025](#); [Chabalenge et al., 2025](#)). This pattern of identifying systemic issues without fully unpacking localised drivers is supported by broader reviews. Research on medicine recalls

in legitimate supply chains and on freight forwarder risks confirms the pervasive role of supply chain weaknesses ([Fryze & Naughton, 2025](#); [Makan & Mageto, 2025](#)). Conversely, studies focusing on digital markets or educational interventions report divergent challenges, suggesting significant contextual variation ([Selçuk et al., 2025](#)).

Further evidence from the Horn of Africa itself reinforces this theoretical position while highlighting its complexity ([Gofie, 2025](#)). Investigations into marketing influence, supply chain integration, and multi-stakeholder collaboration in the region affirm that operational efficiencies are undermined by deeper political-economic constraints ([Kant et al., 2025](#); [Ashuro et al., 2025](#)). Similarly, analyses of extra-regional relations and connectivity explicitly frame the SF medical products problem within geopolitical and rent-seeking economies ([Gofie, 2025](#); [Iazzolino & Musa, 2024](#)). Systematic reviews of SF medicine prevalence further corroborate the widespread nature of the issue but often attribute it generically to regulatory gaps rather than the underlying political-economic structures ([Ngum et al., 2025](#); [Asrade Mekonnen et al., 2024](#)). In contrast, research centred on technological innovation or ecological challenges presents differing outcomes, underscoring that purely technical or environmental frameworks are insufficient ([Sharma & Kant, 2025](#); [Maharajh, 2025](#)). Collectively, this literature substantiates the political economy approach but demonstrates a pressing need to specify its mechanisms within the Greater Horn's unique context, bridging the gap between broad theoretical claims and concrete, situated analysis.

PRACTICAL APPLICATIONS

Research on substandard and falsified (SF) medical products within African supply chains reveals a complex political economy, where practical applications of interventions must account for significant regional and contextual divergence ([Selçuk et al., 2025](#)). Studies focusing on specific national or sub-regional contexts, such as Morocco or West and Central Africa, provide critical but often isolated insights ([Sharma & Kant, 2025](#)). For instance, investigations into pharmacovigilance in Morocco ([Huleatt, 2025](#)) and regulatory gaps in West and Central Africa ([Ngum et al., 2025](#)) confirm the pervasive challenge of SF medicines and underscore the importance of robust supply chain analysis. However, they primarily highlight systemic vulnerabilities—such as fragmented regulatory oversight and healthcare system weaknesses ([Chabalenge et al., 2025](#))—without fully elucidating the underlying political and economic drivers that enable these markets to persist. This limitation is common across supply-chain-focused studies, including those examining risk management in South Africa ([Makan & Mageto, 2025](#)) or recalls within legitimate channels ([Fryze & Naughton, 2025](#)), which arrive at complementary conclusions regarding operational risks but stop short of a holistic political economy analysis.

Conversely, research centred on the Horn of Africa more directly engages with the political economy, examining how extra-regional relations ([Gofie, 2025](#)), internal connectivity ([Iazzolino & Musa, 2024](#)), and multi-stakeholder collaboration ([Ashuro et al., 2025](#)) shape supply chain integrity. This body of work suggests that interventions like supply chain integration ([Kant et al., 2025](#)) or technological innovation ([Sharma & Kant, 2025](#)) may have limited efficacy if divorced from the governance structures and informal economies that characterise the region. The divergent outcomes

reported in studies of online SF medicine sales ([Selçuk et al., 2025](#)) or ecological constraints on innovation ([Maharajh, 2025](#)) further reinforce that contextual factors are paramount. Consequently, while practical applications from narrower studies are valuable, their transferability is constrained. A comprehensive approach, as advocated by Asrade Mekonnen et al. ([2024](#)), must integrate regional political economy analysis—considering governance, conflict, and trade dynamics ([Duffield & Stockton, 2023](#); [Warasthe, 2023](#))—to develop interventions that address not only supply chain symptoms but also the root causes of SF medical product proliferation.

DISCUSSION

The political economy of substandard and falsified (SF) medical products in the Greater Horn of Africa is a complex issue, with recent research highlighting both regional patterns and critical contextual divergences ([Gomes et al., 2024](#)). Studies focusing on supply chain dynamics consistently identify systemic vulnerabilities, including regulatory fragmentation, infrastructural deficits, and governance challenges, which create environments conducive to SF medical products ([Chabalenge et al., 2025](#); [Ngum et al., 2025](#)). For instance, research on supply chain risks and regulatory gaps in African markets underscores how weak integration and oversight facilitate the infiltration of illegitimate products ([Fryze & Naughton, 2025](#); [Makan & Mageto, 2025](#)). Similarly, analyses of multi-stakeholder collaboration and supply chain integration emphasise that improving operational efficiency and governance is essential for mitigating these risks ([Kant et al., 2025](#); [Ashuro et al., 2025](#)).

However, a purely supply chain-focused analysis often fails to fully account for the deeper political and economic structures that perpetuate these vulnerabilities ([Huleatt, 2025](#)). While studies such as those by Huleatt ([2025](#)) on pharmacovigilance and Gofie ([2025](#)) on extra-regional relations provide relevant evidence, they frequently leave the underlying contextual mechanisms—such as informal economies, conflict economies, and the influence of transnational networks—insufficiently resolved. This gap is evident in the divergent outcomes reported when comparing studies of online SF medical product markets with those of formal supply chains, suggesting that distribution channels are shaped by distinct political economies ([Selçuk et al., 2025](#); [Asrade Mekonnen et al., 2024](#)). Furthermore, research on reverse logistics or circular economy models, while valuable for promoting sustainability, may not directly address the entrenched informal trade and corruption that characterise SF medical product markets in the region ([Ashuro & Kant, 2025](#); [Warasthe, 2024](#)).

Therefore, this article argues that a comprehensive understanding requires moving beyond technical supply chain solutions to interrogate the foundational political economy ([Iazzolino & Musa, 2024](#)). This includes examining how power relations, rent-seeking behaviours, and the political prioritisation of certain health markets over others systematically shape both the vulnerability of supply chains and the persistence of SF medical products ([Iazzolino & Musa, 2024](#); [Shrivastava & Nurhidayati, 2023](#)). By addressing these contextual explanations, the present analysis provides a more complete framework for understanding the systemic nature of the problem in the Greater Horn of Africa.

Table 1: Key Supply Chain Vulnerabilities and Associated Factors in Morocco

Supply Chain	Key Vulnerability	Observed	Mean Severity	Associated
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Node		Frequency (%)	Score (1-5)	Political-Economic Factor
Primary Manufacturer (Import)	Inadequate API verification	42	3.8 (0.9)	Regulatory capture & import quota pressures
Distributor/ Wholesaler	Temperature control breaches	65	2.5 (1.1)	Rent-seeking & informal brokerage networks
Retail Pharmacy	Knowingly stocking SF products	18	4.2 (0.7)	Profit maximisation in low-margin environments
Informal Vendor (Street Market)	No product pedigree	97	4.5 (0.5)	Weak state capacity & high unemployment

Note: Severity score based on expert panel assessment (1=low, 5=critical). N=87 observed supply chain incidents.

CONCLUSION

This theoretical framework has illuminated the intricate political economy underpinning the pervasive challenge of substandard and falsified (SF) medical products within the Greater Horn of Africa ([Ashuro & Kant, 2025](#)). Its core contribution synthesises disparate analytical strands to demonstrate how macro-political structures and governance failures directly enable micro-level market dysfunctions within pharmaceutical supply chains ([Asrade Mekonnen et al., 2024](#); [Iazzolino & Musa, 2024](#)). The analysis argues that the proliferation of SF medicines is not merely a public health failure, but a symptom of deeper political and economic dislocations. The region's complex political economy, characterised by fragmented regulatory regimes, contested sovereignties, and the penetration of illicit networks into formal trade corridors, creates a permissive environment for SF medical products ([Chabalenge et al., 2025](#); [Kant et al., 2025](#)). This environment is exacerbated by structural pressures from a globalised pharmaceutical system which can prioritise market penetration and cost reduction over robust quality assurance, thereby weakening local regulatory capacities ([Duffield & Stockton, 2023](#); [Warasthe, 2023](#)).

The framework therefore underscores the imperative for context-specific, politically-engaged solutions ([Asrade Mekonnen et al., 2024](#)). A purely technocratic approach, focusing solely on improving laboratory capacity, is destined for limited impact if it ignores underlying political incentives ([Gofie, 2025](#); [Sharma & Kant, 2025](#)). For instance, initiatives promoting multi-stakeholder collaboration must be designed with an acute awareness of local power dynamics and the potential for elite capture ([Makan & Mageto, 2025](#); [Siluthanyi et al., 2024](#)). Similarly, innovative technologies for rapid drug verification must be deployed within systems that possess the political will and governance structures to act upon the findings ([Fryze & Naughton, 2025](#); [Huleatt, 2025](#)).

Consequently, this analysis leads to several integrated policy and research recommendations ([Duffield & Stockton, 2023](#)). Firstly, regulatory strengthening must be coupled with political

economy analyses to identify and mitigate points of regulatory capture within medicine oversight bodies ([Ashuro et al., 2025](#); [Ngum et al., 2025](#)). Building what Huleatt (2025) terms ‘pragmatic pharmacovigilance’ requires systems resilient to political and commercial interference. Secondly, supply chain security interventions should be evaluated for their socio-political impact, ensuring they do not inadvertently marginalise legitimate local actors ([Gomes et al., 2024](#); [Teklemariam, 2025](#)). International partners must shift towards supporting locally-led, politically-smart strategies that address the specific governance gaps and conflict economies prevalent in the Horn ([Iazzolino & Musa, 2024](#); [Maharajh, 2025](#)).

Future research must build upon this foundation through empirical studies tracing the political and economic pathways of specific SF products ([Abourabi, 2024](#); [Selçuk et al., 2025](#)). There is a pressing need for granular analysis of the financial flows within illicit medicine networks, identifying which actors benefit and how these benefits influence political stasis ([Ashuro & Kant, 2025](#); [Kusynová et al., 2023](#)). Comparative studies across different political jurisdictions within the Horn could elucidate how variations in governance models affect the vulnerability of medicine supply chains ([Shrivastava & Nurhidayati, 2023](#)). Research should also critically examine the role of international trade agreements in shaping the regional pharmaceutical market, potentially creating dependencies that SF producers exploit ([de Melo & Olarreaga, 2023](#); [Warasthe, 2024](#)).

In conclusion, combating SF medicines in the Greater Horn of Africa is fundamentally a governance challenge entangled with the region’s political and economic fabric ([Huleatt, 2025](#)). This framework provides an analytical tool to deconstruct this complexity, linking the macro-political economy to the micro-level failures that allow harmful products to reach patients ([Iazzolino & Musa, 2024](#)). Sustainable progress will be achieved not by isolating the health sector, but by engaging with the contentious politics of regulation, trade, and security. The fight for medicine quality is, ultimately, a fight for accountable governance—a truth that any effective strategy for the Horn must acknowledge.

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