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The Digital Silk Road in a Cash-Limited Society: A Critical Analysis of Chinese Fintech Expansion and its Impact on Financial Sovereignty in Malawi

Jani Grey Kasunda^{1,*}

¹ School of International Studies/Academy of Overseas Chinese Studies, Jinan University, Guangzhou, China

*Corresponding author. Email: janikasunda4@gmail.com

Received: 6 March 2026, Accepted: 17 March 2026, Published: 24 March 2026

Abstract

China's Digital Silk Road (DSR) promises to bridge profound financial inclusion gaps in cash-limited societies like Malawi, yet its implications for financial sovereignty remain critically underexamined. This article employs a qualitative case study methodology, framed by global governance and development economics perspectives, to analyze the expansion of Chinese fintech in Malawi. The findings reveal that Malawi's structural vulnerabilities create a permissive environment for the adoption of integrated Chinese digital ecosystems. This process initiates a form of technological integration characterized by path dependence through technological lock-in, which creates high switching costs that constrain future options, and the transfer of financial data to servers outside national jurisdiction (data externalization), limiting domestic governance capacity. These dynamics reflect contemporary core-periphery dynamics in the digital economy. Concurrently, the DSR serves as a tool of infrastructural power, defined as the ability to project influence by controlling the critical networks on which other states depend, thereby extending China's geopolitical leverage by integrating its technology into the heart of Malawi's financial system. The study concludes that the DSR, while offering developmental benefits, simultaneously presents challenges to financial sovereignty by creating structural dependencies that may constrain Malawi's policy autonomy and embed external strategic interests within its economic governance framework. It underscores the necessity for strategic digital governance to navigate the sovereignty-technology trade-off, which is a universal challenge for developing nations navigating digital integration. By framing the DSR through platform capitalism and global governance perspectives, this study contributes to understanding technological statecraft in the Global South and offers empirically grounded analysis to inform policy development.

Keywords: Digital Silk Road; Financial Sovereignty; Technological Lock-in; Path Dependence; Infrastructural Power; Malawi

1. INTRODUCTION

The architecture of the global political economy is being reconfigured not only through traditional trade and diplomacy but increasingly through the export of digital infrastructure and standards. China's Digital Silk Road (DSR), a pivotal component of its broader Belt and Road Initiative, represents a strategic foray into this new frontier, aiming to wire the Global South with Chinese technology. As Baniya et al. [4] demonstrate through gravity analysis, the Belt and Road Initiative has generated significant trade effects by reducing transit times and trade costs along participating corridors. Their empirical findings suggest that infrastructure investments under initiatives such as the DSR can reshape economic geography and create new patterns of integration, with both opportunities and implications for participating countries. This initiative presents a critical juncture for developing nations, pitting the tangible promise of financial inclusion against the more abstract yet profound considerations of economic self-determination. This article addresses the following primary research question: How does the expansion of Chinese fintech under the Digital Silk Road affect the contours of financial

sovereignty in Malawi? Subsidiary questions examine the structural vulnerabilities that enable this expansion, the mechanisms by which technological integration occurs, and the pathways for navigating the trade-offs between technological adoption and sovereign control. The study adopts a predominantly qualitative methodology, leveraging global governance and development economics frameworks to dissect the power dynamics and structural considerations inherent in this technological engagement.

1.1. Problem Statement

Malawi's financial landscape is at a crossroads. Despite the transformative potential of digital finance, the nation remains severely financially excluded, with a vast, rural population operating outside the formal banking system. The 2022 FinScope survey, as cited by Gonani [19], underscores this reality, indicating that only 41% of Malawian adults are formally banked. While domestic Mobile Network Operators (MNOs) like Airtel Money and TNM Mpamba have initiated a digital shift, their capacity is often constrained by limited capital and technological scope. This vulnerability creates a strategic opening. The prospective entry of well-resourced, state-aligned Chinese fintech corporations, offering integrated digital payment ecosystems, presents a fundamental dilemma. This dilemma reflects a broader reassessment within development economics, where the promise of fintech-driven financial inclusion is increasingly weighed against its potential to create new market concentrations and data governance challenges [17]. As Johnson [25] articulated in his dynamic theory of international economic relations, the integration of developing economies into global systems creates complex interdependencies that can generate both growth opportunities and structural constraints. His framework anticipated many of the contemporary concerns about how technological dependencies might shape long-term development trajectories. The central problem, therefore, is the inherent tension between the immediate developmental gains of adopting advanced foreign fintech solutions and the gradual, often imperceptible, implications for a state's financial sovereignty. This analysis does not cast Malawi as a passive recipient. Instead, it investigates how the Malawian state, operating within significant structural constraints, exercises agency by engaging with the DSR to advance its own developmental objectives, as articulated in its national vision, the MW2063. The core question becomes one of how this agency is exercised, by whom, and with what potential long-term consequences for sovereign control.

This analysis is grounded in recent empirical developments. The Memorandum of Understanding (MoU) signed between the Government of Malawi and Huawei Technologies during the September 2024 Forum on China-Africa Cooperation (FOCAC) summit to launch smart cities and implement a comprehensive "Smart Village Programme" marks a critical development [12]. This agreement, which explicitly aims to expand access to financial services and builds upon previous infrastructure projects like the Chinese-built National Data Centre launched in 2022, provides a concrete framework for analyzing the implications of such integrated technological partnerships. This study, therefore, examines this specific MoU as a pivotal case to analyze the sovereignty implications of such integrated technological partnerships.

To interrogate this problem, this study is anchored in global governance and development economics perspectives. These frameworks provide the descriptive and analytical power to move beyond a mere account of technological transfer and toward an examination of its underlying structural and institutional dimensions. A preliminary review of the literature reveals a significant gap. While macro-level analyses of the DSR and its geopolitical drivers are increasingly common, there is a scarcity of empirically grounded, country-specific case studies that critically examine its impact on the financial sovereignty of vulnerable, cash-limited economies like Malawi. This study therefore, bridges this gap by conducting a case study of Malawi and applying these lenses to understand how global financial technological power dynamics manifest locally.

1.2. Research Questions and Methodological Approach

Guided by these theoretical concerns, this qualitative study addresses the following primary research question: How does the expansion of Chinese fintech under the Digital Silk Road affect the contours of financial sovereignty in Malawi?

This overarching question is explored through the following sub-questions:

1. How do the existing structural vulnerabilities within Malawi's digital finance ecosystem create a context for the entry of Chinese fintech firms?
2. In what ways do the modalities of Chinese fintech expansion reflect patterns of technological integration and power dynamics as understood in global governance and development economics perspectives?
3. What potential pathways exist, informed by theory, for Malawi to navigate the trade-offs between technological adoption and the preservation of financial sovereignty?

This study does not seek to generate quantitative data or test hypotheses but rather to provide a theoretical explication of a critical emerging issue. The methodology is qualitative, relying on a systematic analysis of policy documents, existing scholarly literature, and case studies of DSR projects to construct a theoretically informed narrative and analysis.

By synthesizing key insights from global governance and development economics, this study argues that Chinese fintech expansion in Malawi, while seemingly aimed at reducing financial exclusion, represents a form of economic statecraft that may create structural path dependencies within Malawi's financial system. This process presents considerations for financial sovereignty that warrant careful policy attention. The following sections offer a thorough explanation of the theoretical framework, showing how global governance perspectives account for the structural dimensions of the digital economy, and how development economics highlights the trade-offs inherent in technological adoption. A comprehensive review of existing scholarship on financial sovereignty, the DSR, and digital finance in Africa will then position this study within the broader academic conversation.

2. THEORETICAL FRAMEWORK

This study is grounded in the confluence of two complementary analytical traditions: Global Governance and Development Economics. These frameworks offer integrated lenses through which to examine the multi-layered implications of China's Digital Silk Road (DSR) for Malawian financial sovereignty. Together, they provide a robust architecture for analyzing both the structural and institutional dimensions that define this technological engagement.

2.1. Global Governance Perspective on Digital Infrastructure

Global governance scholarship examines how transnational rules, norms, and institutions shape state behaviour and policy outcomes in an interconnected world [5,41]. This perspective is particularly relevant to analyzing the DSR, as digital infrastructure transcends national borders and operates within complex governance frameworks involving multiple actors, including states, corporations, and international institutions. Spero & Hart [44] provide foundational insights into the politics of international economic relations, demonstrating how state and non-state actors negotiate power and influence across borders. Their framework illuminates how technological infrastructures become sites of political contestation and strategic advantage in the contemporary global economy.

In the digital age, global governance scholars have increasingly focused on what Avant et al. [3] term the politics of governing beyond the state. Digital platforms and infrastructures create new governance challenges because they operate across jurisdictions while concentrating power in private actors. For developing countries like Malawi, engagement with transnational digital systems means navigating governance frameworks often shaped by powerful external actors, including states and corporations. This creates what Drezner [13] identifies as a governance gap, in which formal state authority coexists with de facto control exercised by external entities through technological standards and platforms.

The concept of infrastructural power, developed by Mann [31] and applied to digital contexts by scholars such as Easterling [14], refers to the capacity to project influence by controlling the critical networks and systems upon which others depend for their economic and social functioning. When a state's financial system relies on foreign-owned digital infrastructure, the provider of that infrastructure gains what Strange [48] termed "structural power," the ability to shape the frameworks within which others operate. This power is exercised not through direct coercion but through the everyday operation of systems that become essential to economic life. This understanding resonates with classical Realist perspectives on international relations, as articulated by Morgenthau [33] and Waltz [50], who

emphasized that the pursuit of power and security fundamentally shapes state behaviour. From this vantage point, technological infrastructure becomes an instrument of national strategy, extending a state's reach and influence beyond its borders through ostensibly commercial means.

Technological lock-in, as understood in global governance scholarship, refers to a specific form of path dependence where early choices regarding technology standards establish self-reinforcing mechanisms that limit future options [2,10]. In the context of digital infrastructure, lock-in occurs when the costs of switching to alternative systems become prohibitively high due to embedded investments, training, data compatibility requirements, and network effects. Heeks et al. [22] note that Chinese digital expansion is characterized by the export of 'stacked systems,' integrated bundles of infrastructure, platforms, and services that foster technological lock-in. For Malawi, adopting these integrated financial infrastructure systems results in a continued reliance on Chinese platforms for updates, maintenance, and interoperability, which could restrict local innovation and policy flexibility.

2.2. Development Economics Perspective on Digital Finance

Development economics provides essential tools for understanding how digital finance affects economic development outcomes and the trade-offs inherent in technological adoption. This perspective moves beyond aggregate growth measures to examine distributional effects, institutional capacity, and the conditions under which technology promotes or hinders inclusive development [38,47]. Krugman's [28] work on international economics provides foundational insights into how trade and financial integration create both opportunities and adjustment challenges for developing economies. His analysis of economies of scale and first-mover advantages helps explain why technological lock-in can be particularly consequential for smaller economies like Malawi.

Financial inclusion has become a central goal of development policy, with digital finance offering unprecedented opportunities to extend services to previously excluded populations. The success of mobile money in Kenya, documented by Suri & Jack [49], demonstrates the transformative potential of digital financial services. However, development economists increasingly recognize that the structure of digital finance matters for development outcomes. Gabor & Brooks [17] caution that the digital revolution in finance, while expanding access, can also lead to market concentration and raise questions about data governance and consumer protection, issues that are amplified when platforms are foreign-controlled. Johnson's [25] dynamic theory anticipated these concerns, arguing that the terms on which developing countries integrate into global economic systems fundamentally shape their long-term development prospects. His emphasis on the structural conditions of integration remains highly relevant for understanding contemporary digital dependencies.

The concept of path dependence in development economics illuminates how initial technological choices shape long-term development trajectories. Once a particular technological standard or platform becomes embedded in an economy, switching costs become prohibitively high, creating self-reinforcing dynamics that lock countries into specific development pathways [35]. For Malawi, the adoption of Chinese digital ecosystems represents such a choice point, with potential implications for the country's future technological autonomy and development options. This echoes the foundational concerns of classical political economy. As Smith [43] argued in *The Wealth of Nations*, the specialization and division of labour that drive economic growth also create interdependencies that can render nations vulnerable to disruptions in key economic relationships. Contemporary digital dependencies represent a modern manifestation of this classical concern.

Data governance has emerged as a critical development issue in the digital age. Rodrik [39] argues that the ability to govern data flows and protect citizen information is increasingly central to economic sovereignty. When financial data is processed and stored outside national jurisdiction, a process termed "data externalization" in this study, countries lose the capacity to use this information for national planning, to protect citizens from external surveillance, and to ensure that economic value derived from data benefits the local economy. This represents what development economists term a "sovereignty deficit," a gap between formal authority and actual control over key economic resources.

2.3. Integrating the Frameworks: The Sovereignty-Technology Trade-off

The integration of global governance and development economics perspectives yields a comprehensive analytical framework for examining Chinese fintech expansion in Malawi. Global

governance scholarship illuminates the structural and institutional dimensions: how transnational digital systems create governance challenges, how infrastructural power operates through technological lock-in, and how formal sovereignty coexists with de facto external control. Development economics provides tools for analyzing the trade-offs, namely between short-term gains in financial inclusion and long-term considerations of policy autonomy, between technological adoption and local capacity building, and between integration into global digital systems and preservation of domestic policy space. This integrated approach builds upon the comprehensive frameworks for understanding international economic relations developed by scholars such as Nie et al. [34], Zhang et al. [53], and Zhou [54], who emphasize the multi-dimensional nature of economic interactions in an increasingly interconnected world.

Together, these frameworks highlight what this study terms the “sovereignty-technology trade-off,” a universal challenge for developing nations navigating digital integration. The trade-off recognizes that technological adoption involves not just technical choices but fundamental decisions about governance, autonomy, and development pathways. For Malawi, engagement with the DSR offers potential benefits in addressing financial exclusion while simultaneously raising considerations about long-term policy autonomy and structural dependence. This framework guides the subsequent analysis of Malawi’s financial ecosystem and the assessment of the DSR’s implications for financial sovereignty.

3. LITERATURE REVIEW

This review examines existing scholarship across three critical thematic areas to immerse the study in the ongoing academic debates. It first examines the literature on financial sovereignty in the digital age, then explores the drivers and modalities of China’s Digital Silk Road (DSR), and finally, analyzes the specific interactions between digital finance and development in the African context. The review identifies a significant gap. While the macro-level implications of the DSR are increasingly documented, there is a scarcity of empirically grounded, country-specific analyses that examine its impact on the financial sovereignty of vulnerable, cash-limited economies like Malawi.

3.1. The Evolving Concept of Financial Sovereignty in the Digital Age

The classical conception of sovereignty, defined by Westphalian principles of territorial integrity and non-interference, has been profoundly complicated by globalization and digitalization. Traditionally, financial sovereignty was understood as a state’s unimpeded control over its currency, monetary policy, and domestic financial regulation [9]. However, contemporary scholars argue that this autonomy is increasingly constrained by cross-border capital flows, global financial institutions, and now, by the rise of transnational digital platforms. Amin’s [1] foundational work on accumulation on a world scale provides essential theoretical resources for understanding these dynamics. His analysis of how core-periphery relations structure global economic flows anticipated many contemporary concerns about digital dependencies, demonstrating that technological asymmetries can reproduce and deepen existing patterns of unequal development.

The digitization of finance introduces novel challenges to this already contested sovereignty. As Karppi & Crawford [26] argue, the architecture of digital networks themselves can become a site of power and control, often exceeding the regulatory grasp of individual nation-states. This is particularly acute for developing countries like Malawi. Zuboff [55] frames the extraction of behavioural data through financial platforms as surveillance capitalism, where economic value and predictive power are derived from users, often without commensurate benefit returning to the individual or the state. In the context of international expansion, external control over infrastructure, data, and governance has led scholars like Kwet [29] to examine whether core-periphery dynamics are being reproduced in the digital realm. This study examines whether the Malawian case exhibits characteristics of structural dependency in digital systems, where powerful external actors establish significant influence by controlling essential 21st-century economic architectures. This creates a sovereignty gap, where de jure authority remains with the state, but de facto control is ceded to external corporate or state actors. For Malawi, this literature suggests that the adoption of foreign fintech is not a simple procurement

decision but a potential relinquishment of control over the lifeblood of its modern economy, the financial data and transaction flows, with implications for long-term policy autonomy.

3.2. The Digital Silk Road as Geopolitical and Economic Statecraft

A substantial body of literature frames the Belt and Road Initiative (BRI) and its digital component, the Digital Silk Road (DSR), as central pillars of China's foreign policy strategy. From a global governance perspective, authors like Rolland [40] contend that the BRI is a grand strategic blueprint aimed at reshaping the international order to better align with Chinese interests, reducing its reliance on Western-dominated maritime routes, and creating a Sino-centric network of economic and political relationships. The DSR extends this logic into the digital domain. Wang et al. [51] provide empirical evidence for the trade effects of the DSR through their analysis of Silk Road E-commerce, demonstrating that digital connectivity initiatives have generated significant increases in trade flows between China and participating countries. Their quasi-natural experiment approach reveals that digital infrastructure investments create measurable economic impacts that extend beyond immediate connectivity improvements. Similarly, Baniya et al. [4] show through gravity analysis that infrastructure investments under the BRI framework have reduced trade costs and transit times, creating new patterns of economic integration and prosperity.

Scholars like Heeks et al. [23] have analyzed mechanisms such as technological lock-in through which this influence is projected. This lock-in ensures long-term reliance on Chinese standards, software updates, and technical maintenance, creating path-dependent dynamics that shape recipient countries' technological trajectories. Furthermore, the DSR is instrumental in promoting Chinese technological standards. As de Kluiver & Neethling [11] note, by establishing its technical norms as the default in developing countries, China positions itself to set the rules of the future global digital economy, directly challenging the historical dominance of Western standards. This is not merely commercial competition; as Eguegu [15] argues, it is a form of normative power, where China exports a distinct model of digital governance that prioritizes state security and control over a more open, liberal internet. Ly [30] offers a comprehensive analysis of both the challenges and perspectives of the DSR, arguing that the initiative represents a strategic attempt to establish Chinese technological standards as global norms. His work emphasizes that the DSR is not simply an infrastructure project but a vehicle for exporting China's model of digital governance, with profound implications for the policy autonomy and developmental trajectories of participating countries. This aligns with the concerns raised by Morgenthau [33] and Waltz [50] about how great powers use economic and technological means to extend their influence in the international system. From a development economics perspective, the DSR is a multifaceted phenomenon that blends commercial expansion with strategic objectives that directly affect the policy autonomy of recipient states. Hirawan et al. [24] provide valuable insights from the Indonesian context, examining how DSR projects interact with local development priorities and governance frameworks. Their analysis demonstrates that the developmental outcomes of DSR engagement depend significantly on host country institutions and their capacity to shape implementation according to national priorities. This reflects the core tenets of platform capitalism, where the goal is to establish a multi-sided market (connecting citizens, businesses, and government) and use network effects to achieve a dominant, locked-in position [45].

3.3. Digital Finance, Development, and Structural Considerations in Africa

The literature on digital finance in Africa largely celebrates its transformative potential for financial inclusion. The phenomenal success of M-Pesa in Kenya, for example, is frequently cited as a paradigm, demonstrating how mobile money can leapfrog traditional banking infrastructure to bring millions into the formal economy [49]. This narrative of leapfrogging is powerful and underpins the appeal of digital solutions for governments and development agencies.

However, a more critical scholarship, exemplified by Gabor & Brooks [17], warns that the digital revolution in finance, while expanding access, can also lead to market concentration in a few large platforms and raise profound questions about data governance and consumer protection—issues that are exacerbated when the platforms are foreign-controlled. Carmody [7] argues that this engagement can create forms of technological dependence, where African states become locked into Chinese technological ecosystems. These 'techno-political assemblages' fuse infrastructure, finance, and data

flows, creating a modern form of structural power that may constrain policy autonomy and shape development pathways to serve external interests. This potentially creates a pattern of dependent development. Nevertheless, a parallel body of scholarship emphasizes African agency in these engagements. Scholars like Brown [6] and Chipaike & Bischoff [8] argue that African states are not passive recipients but active negotiators who engage with external powers like China to leverage opportunities for their own national interests, often playing partners off against one another. This perspective does not dismiss power asymmetries but insists on recognizing the strategic calculus of African policymakers. For Malawi, the engagement with Huawei and the DSR can be interpreted as a deliberate strategy to accelerate the digitalization goals of its MW2063 agenda, even while navigating the associated governance challenges.

The specific considerations of Chinese fintech dominance are becoming increasingly clear. For example, the case of Zimbabwe's adoption of the Chinese UnionPay system, as analyzed by Gagliardone [18], demonstrates how reliance on foreign payment infrastructure can create strategic vulnerabilities and limit a state's policy options. This aligns with the warnings of Heeks et al. [23] about the infrastructural power wielded through technological lock-in. The potential for data externalization is another major concern. Maurer [32] reminds us that payment systems are not neutral conduits of value but are laden with social and political relations. When these systems are owned and operated by foreign entities, questions arise about sovereignty over economic and social data.

The existing literature, as analysed so far, provides a robust foundation. It establishes that financial sovereignty is under pressure from digitalization. In addition, the DSR is a key vehicle for Chinese geopolitical and economic strategy, and Africa's digital finance boom carries inherent governance considerations. However, these threads are often discussed in isolation. Macro-level analyses of the DSR frequently lack the granularity of a country-specific case study, while studies on financial inclusion in Africa often overlook the geopolitical dimensions of the underlying technology providers.

Therefore, this study bridges this gap by conducting a theoretically informed case study of Malawi. It integrates the macro-level insights from DSR scholarship with the micro-level realities of a specific, cash-limited society. By applying the lenses of global governance and development economics to the Malawian context, this study provides a focused understanding of how global technological power dynamics manifest locally and how the pursuit of financial inclusion through the DSR may simultaneously raise considerations for the very sovereignty it is meant to enhance.

4. METHODOLOGY

This section delineates the methodological framework guiding the investigation into the impact of Chinese Fintech expansion under the Digital Silk Road on Malawi's financial sovereignty. The study's objective is to provide a refined, contextual, and theoretically driven understanding of a complex geopolitical and economic phenomenon, which necessitates a qualitative research design. This approach is epistemologically rooted in interpretivism, a perspective concerned with understanding the socially constructed meanings and realities that shape human experience [42]. Consequently, the purpose of this research is not to test hypotheses or establish causal relationships but to construct an evidence-based narrative that elucidates the underlying dynamics and tensions between technological adoption and national sovereignty.

4.1. Intrinsic Case Study

The study employs a single, intrinsic case study design focused exclusively on the context of Malawi. As articulated by Stake [46], an intrinsic case study is warranted when the research is driven by a fundamental interest in the specific case itself. Malawi constitutes such a case, representing a critical and illustrative example of a cash-limited society standing at a pivotal juncture in its digital financial evolution. The nation's pronounced levels of financial exclusion, its emergent digital finance ecosystem, and its participation in China's broader Belt and Road Initiative collectively render it a strategic site for examining the central research problem. This case study approach facilitates a holistic and in-depth exploration of the intricate interplay between global technological forces and local

institutional realities, aligning with Yin's [52] assertion that case studies are the preferred method for investigating contemporary phenomena within their real-life contexts.

4.2. Data Collection Methods

To ensure a comprehensive and triangulated evidence base, this study relies on the systematic gathering and critical examination of documentary data. The primary method of data collection is document analysis, which involves a structured review of a wide spectrum of textual materials. These materials are drawn from several key sources to provide multiple perspectives on the issue.

Policy and government documents, such as Malawi's National Payment System Act, its National Strategy for Financial Inclusion, relevant national budgets, and parliamentary reports, are scrutinized [36]. These documents offer critical insight into the state's official regulatory stance, its strategic developmental priorities, and its institutional capacity to manage external technological influences. Given the nascent stage of concrete fintech integration, this study is positioned as a forward-looking policy analysis. It systematically analyzes documentary evidence to assess the sovereignty implications of agreed-upon technological pathways. Key documents analyzed include the Memorandum of Understanding between Malawi and Huawei Technologies, announced at the 2024 FOCAC summit [12], which serves as a critical primary source. To contextualize this within established patterns of digital expansion, the study also examines analogous cases, such as the adoption of Chinese UnionPay in Zimbabwe [18] and smart city partnerships in Kenya. This is supplemented by broader China-Malawi bilateral agreements, diagnostic reports from institutions like the World Bank and IMF, and official DSR policy papers. These texts help to illuminate the formal frameworks and external pressures that are actively shaping Malawi's digital landscape.

To understand the commercial drivers and strategies at play, corporate and financial data are examined. This includes annual reports from dominant Malawian Mobile Network Operators such as Airtel Malawi and TNM, alongside available financial statements and press releases from major Chinese fintech firms like Ant Group and Tencent, particularly focusing on their operations in analogous African markets. Finally, the methodology is deeply informed by a systematic literature review, as detailed in the preceding section. The synthesis of academic literature, books, and policy briefs from reputable think tanks provides the essential theoretical grounding and secondary analysis necessary to frame the primary document analysis.

To enhance the transparency and reproducibility of the analysis, the key documents scrutinized in this study are catalogued in Table 1 below:

Table 1. Inventory of Key Documents Analyzed

Document Category	Specific Documents/Sources	Purpose in Analysis
Malawian Policy & Regulation	Reserve Bank of Malawi (RBM) [36]. National Payment System Act. Government of Malawi [21]. Malawi 2063 (MW2063) Vision [20]. RBM [37]. National Strategy for Financial Inclusion.	To establish the domestic regulatory framework, strategic development goals, and official financial inclusion priorities.
International Agreements	Digital Watch [12]. Huawei to boost Malawi's digital transformation. Forum on China-Africa Cooperation (FOCAC) (2024). Beijing Declaration.	To provide concrete evidence of Sino-Malawi digital cooperation and to understand the broader diplomatic context.
Corporate & Financial Data	Airtel Malawi Plc. (2023). Annual Report. Telekom Networks Malawi (TNM) Plc. (2023). Annual Report. Huawei Technologies. (2023). Annual Report.	To understand the market position, capabilities, and strategic focus of key domestic MNOs and the Chinese tech partner.
Academic & Policy Literature	Heeks et al. [23]. China's digital expansion in the Global South: Systematic literature review. Eguegu, O [15]. Analysis of DSR norms in Africa. Gagliardone, I [18]. Case study on UnionPay in Zimbabwe.	To provide the theoretical framework, analytical concepts (e.g., technological lock-in), and comparative case evidence.

4.3. Qualitative Content Analysis

The collected corpus of documentary data is subjected to a rigorous qualitative content analysis. This systematic process involves the coding and interpretation of textual material to identify salient patterns, themes, and underlying meanings [27]. The analytical procedure is iterative, employing both deductive and inductive approaches to coding. Initially, deductive coding is applied, using categories derived directly from the article's theoretical framework and research questions. These pre-established codes include concepts such as "technological lock-in," "externalization," "infrastructural power," "regulatory capacity," and "sovereignty considerations."

Simultaneously, the analysis remains open to emergent themes not fully anticipated by the initial framework, allowing for inductive coding to capture the unique nuances of the Malawian context. The analytical process unfolds in several stages. It begins with a phase of deep familiarization, involving repeated and immersive reading of the collected documents. This is followed by systematic coding, where segments of text are categorized using the deductive and inductive codes, a process facilitated by qualitative data analysis software. The coded data are then synthesized and grouped into overarching themes that directly address the research questions, such as "The Architecture of Path Dependence" or "The Geopolitics of Fintech Adoption." The final stage involves a theoretical interpretation, where these themes are woven into a coherent analytical narrative through the integrated explanatory lens of global governance and development economics.

4.4. Ethical Considerations

Given that this study relies exclusively on publicly available documents and pre-existing academic literature, it mitigates many of the direct ethical risks associated with human subjects research. Nonetheless, the research was conducted in strict adherence to the highest standards of academic integrity. This commitment entails a diligent effort to ensure the accurate representation of all source materials, avoiding any form of misquotation or selective citation that could distort the original meaning or context. Furthermore, the researcher maintains a responsibly critical stance throughout, recognizing that policy and corporate documents are often crafted for strategic purposes and may not fully capture on-the-ground complexities or internal contradictions.

4.5. Limitations

While robust for its intended purpose, this methodology is not without its limitations. Its primary constraint lies in its exclusive reliance on documentary sources. This top-down perspective, focused on state and corporate levels, cannot directly capture the lived experiences, perceptions, and agency of individual Malawians, local merchants, or street-level bureaucrats who interact with these digital systems in their daily lives. Additionally, any assessment of the future impact on sovereignty necessarily involves an element of projection, though this study grounds its assessments firmly in theoretical logic and evidence from analogous historical and contemporary cases. This identified limitation also presents a clear avenue for future research, which could productively complement the findings here through qualitative interviews or surveys to incorporate a bottom-up perspective.

In summary, this qualitative, case-study methodology, centered on documentary analysis and theoretical interpretation, provides a rigorous and appropriate framework for deconstructing the complex relationship between the Digital Silk Road and financial sovereignty in Malawi. It is expressly designed to yield a rich and critically engaged analysis that contributes meaningfully to both academic discourse and pragmatic policy debates.

5. KEY FINDINGS

This study's analysis, guided by the integrated lens of global governance and development economics, reveals that the expansion of Chinese fintech under the Digital Silk Road (DSR) presents a profound set of considerations for Malawi. While offering tangible solutions to financial exclusion, it simultaneously initiates a process of structural path dependence and sovereignty considerations that are subtle, systemic, and strategically significant. The findings are organized around the three research questions, demonstrating how Malawi's structural vulnerabilities create an entry point for Chinese

technology, which in turn operates in ways that validate the core concerns of both theoretical frameworks.

5.1. Structural Vulnerabilities in Malawi's Digital Finance Ecosystem

The first key finding is that Malawi's domestic digital finance landscape has significant structural weaknesses that make it vulnerable to external integrated technological solutions. Although the ecosystem is growing, it remains fragmented and lackluster. The dominance of Mobile Network Operators (MNOs) like Airtel Money and TNM Mpamba has successfully sparked a digital shift, but their services are mostly limited to basic transactions such as peer-to-peer transfers and airtime purchases. As Gonani [19] notes, the potential for more advanced financial products like savings, credit, and insurance is still largely undeveloped, creating a noticeable market gap. This gap is worsened by major infrastructural issues, including limited and costly broadband internet and ongoing energy shortages outside urban areas, which limit the operational capacity of local firms. These findings resonate with the concerns raised by Frank [16], Johnson [25], and Amin [1] about how structural vulnerabilities in peripheral economies create conditions for asymmetrical integration into global systems. Malawi's situation exemplifies the challenges that small, cash-limited economies face in an era of rapid technological change, where the scale and scope of digital platforms often exceed domestic institutional capacity.

Furthermore, the regulatory environment, though evolving, lacks the sophistication and resources to effectively govern a rapidly digitizing financial sector. The Reserve Bank of Malawi (RBM) has made strides with its National Payment System Framework, but its capacity for proactive oversight of complex, algorithm-driven fintech platforms is limited. This regulatory lag creates a governance gap. This situation exemplifies what Carmody [7] identifies as conditions that may lead to digital dependence in Africa, the domestic structural vulnerabilities intersecting with the strategic offer of integrated technological solutions from abroad. In this state, Malawi possesses formal agency but operates within a context of significant structural disadvantages. These vulnerabilities do not merely invite foreign investment; they create a context where advanced, integrated external solutions like those offered under the DSR can address gaps that nascent local capacities cannot readily fill. As Krugman [28] might argue, economies of scale and first-mover advantages in digital platforms create inherent tendencies toward concentration that smaller economies are ill-equipped to counter without deliberate policy interventions.

Crucially, these structural vulnerabilities interact with a domestic political economy where specific actors actively champion technological solutions like the Huawei MoU. The executive branch and ministries focused on infrastructure and economic development often champion such partnerships, driven by the imperative to demonstrate rapid, visible progress towards the MW2063 development goals. They also bridge yawning digital and financial gaps. However, this championing is not unopposed. Potential domestic contestation can be anticipated from two key quarters. First, from commercial banks and local MNOs (Airtel Money, TNM Mpamba) who may perceive Chinese fintech ecosystems as a competitive challenge to their market share and business models. Second, from civil society groups and data privacy advocates concerned with the externalization of citizen data and the lack of transparent data governance frameworks within proposed Chinese systems. The regulatory outcome, and thus the future of Malawi's financial sovereignty, will be shaped by the relative influence of these competing domestic interests.

5.1.1. Assessing Malawi's Institutional Capacity for Regulatory Implementation

A critical question arising from this analysis concerns the capacity of Malawian institutions to implement the regulatory safeguards proposed in this study. As documented in financial sector assessments by both the International Monetary Fund (IMF) and the World Bank, Malawi's financial regulatory authorities face capacity constraints common to many low-income countries in Sub-Saharan Africa, including limited supervisory budgets and technical expertise relative to the scale and complexity of the financial system. According to the National Payment System Act [36], the Reserve Bank of Malawi (RBM) has the legal mandate to oversee payment systems, but implementation capacity remains uneven. The central bank's Fintech and Innovation unit, established in 2021, has a few dedicated staff members responsible for monitoring the expanding digital financial landscape. This

staffing level is substantially below what would be required for proactive oversight of complex, algorithm-driven fintech platforms.

This funding gap limits the RBM's ability to recruit specialized technical expertise, invest in regulatory technology (RegTech) solutions, or conduct on-site inspections of fintech operations. In addition, the rapid evolution of fintech requires regulators to understand complex algorithms, data governance frameworks, and cybersecurity protocols. As such, budget constraints can also compound the central bank's ability to retain data scientists and cybersecurity experts, resulting in high turnover and knowledge gaps in specialized areas.

However, Malawi has demonstrated capacity-building successes in other regulatory domains that offer lessons for fintech oversight. The Malawi Communications Regulatory Authority (MACRA) has developed technical expertise in telecommunications regulation through partnerships with international organizations and regional training programmes. Similar approaches could be adapted for financial regulation. Additionally, the RBM participates in regional initiatives through the Common Market for Eastern and Southern Africa (COMESA) and the Southern African Development Community (SADC), which provide platforms for regulatory coordination and capacity sharing.

Donor support has also played a role in building regulatory capacity. Programmes funded by the World Bank's Financial Inclusion Support Project and the African Development Bank have provided technical assistance to strengthen the RBM's supervisory frameworks. These initiatives have supported the development of the National Financial Inclusion Strategy and the modernization of payment systems oversight.

The feasibility of the regulatory pathways proposed in this study, interoperability mandates, and strategic diversification depends on addressing these capacity constraints incrementally. Rather than requiring immediate, comprehensive implementation, Malawi could pursue a phased approach. Phase one would focus on strengthening the RBM's technical capacity through targeted recruitment, regional partnerships, and regulatory technology investments. Phase two would involve piloting interoperability requirements with existing domestic payment systems before extending them to foreign providers. Phase three would develop a national data governance framework that applies progressively to all fintech operators, both domestic and foreign.

5.2. Modalities of Technological Integration and Power Dynamics

The analysis of Chinese fintech expansion revealed distinct modalities that align precisely with the dynamics theorized by global governance and development economics perspectives. The primary mechanism identified is that of technological lock-in and ecosystem integration, a dynamic clearly illustrated by the recent Malawi-Huawei MoU and its regional context. The Huawei Smart Village Programme exemplifies the stacked approach described by Heeks et al. [22], proposing to integrate a suite of technologies, from smart agriculture and education to financial services, likely built upon a unified Huawei platform and cloud infrastructure. This model is not isolated to Malawi; it reflects a regional strategy, with analogous projects underway in Zambia and Uganda [12]. Once such an integrated system for public services and financial access is embedded, switching costs become prohibitively high, locking the recipient state into a long-term relationship of reliance on Chinese technical standards, software updates, and proprietary systems. This creates a form of path dependence, where the technology provider (China) sets the terms for the recipient's (Malawi's) digital development from the outset. This finding is consistent with the empirical work of Wang et al. [51] and Baniya et al. [4], who demonstrate that infrastructure investments under Chinese initiatives create lasting economic relationships that reshape trade and investment patterns. The path dependencies observed in Malawi's fintech engagement mirror the broader patterns identified in their quantitative analyses.

This path dependence is compounded by the externalization of financial data. The lifeblood of a modern digital economy is data, and control over this resource is a critical source of power. The operational model of large fintech platforms inherently involves the collection of vast amounts of sensitive financial and behavioural data. This is not merely a privacy issue but a fundamental economic one. The externalization of data represents a potential loss of a key economic resource in the digital age, effectively reflecting dynamics of Zuboff's [55] surveillance capitalism on a transnational scale, where the predictive power and economic value derived from Malawian financial behaviour are alienated from the local context. Eguegu [15] argues that the DSR may facilitate a modern form of resource flow

where this data, once gathered on Malawian soil, is often processed and stored in data centers located outside the country, potentially within China's jurisdiction. This externalization affects a key pillar of financial sovereignty, the state's ability to protect and govern its citizens' financial information and to use aggregated economic data for national planning and policy formulation. As Spero & Hart [44] might frame it, this represents a fundamental shift in the location of economic decision-making power, where critical information about a nation's economic life becomes subject to external governance structures.

5.2.1. The Role of Malawi's Data Protection Laws in Mitigating Externalization Risks

Malawi's legal framework for data protection has undergone a significant transformation with the enactment of the Data Protection Act, 2024, which came into force on June 3, 2024 [21]. This landmark legislation establishes a comprehensive framework to protect individuals' personal information and designates the Data Protection Authority (DPA) unit within the Malawi Communications Regulatory Authority (MACRA) as the overseeing body responsible for its implementation and enforcement.

Before this enactment, the primary legislative instrument was the Electronic Transactions and Cyber Security Act [20], which provided foundational provisions for data protection but fell short of comprehensive data governance. Key limitations of the previous framework included having no explicit data localization requirements or restrictions on cross-border data transfers, limited enforcement capacity within MACRA, and the absence of a standalone data protection regime comparable to regional peers.

However, the Data Protection Act, 2024, addresses these gaps through several key provisions:

- a) **Establishment of a dedicated Data Protection Authority:** The Act creates a specialized regulatory unit within MACRA with powers to oversee data protection compliance, investigate breaches, conduct audits, and impose sanctions for violations. The DPA is mandated to maintain a public register of data controllers and data processors.
- b) **Mandatory registration of data controllers and processors:** All entities processing personal data must register with the DPA, enabling systematic oversight of data handlers, including fintech operators. The Act specifies thresholds and categories for mandatory registration.
- c) **Enhanced requirements for cross-border data transfers:** The Act restricts transfers of personal data to countries without adequate data protection frameworks. Sections 38-40 require data exporters to ensure that receiving jurisdictions provide equivalent protection, with exemptions only under specific conditions such as explicit consent or contractual necessity.
- d) **Comprehensive data subject rights:** Individuals gain enforceable rights to access, correct, object to processing, and request deletion of their personal data. The Act also introduces rights to data portability and protection against automated decision-making.
- e) **Data protection principles:** The Act enshrines key principles, including lawfulness, fairness, transparency, purpose limitation, data minimization, accuracy, storage limitation, integrity, and confidentiality—aligning Malawi's framework with international standards such as the General Data Protection Regulation (GDPR) of the European Union.
- f) **Data localization provisions:** While not mandating universal data localization, Section 38 empowers the DPA to require that specific categories of sensitive data remain within Malawi's jurisdiction where necessary for national security, public interest, or the protection of the rights and freedoms of data subjects.
- g) **Enforcement and sanctions:** The Act grants the DPA powers to issue enforcement notices, impose administrative fines (up to a specified percentage of annual turnover), and recommend prosecution for serious offenses. Data subjects may also seek compensation through civil proceedings.

Additionally, Malawi's participation in regional data protection initiatives offers pathways for strengthening governance capacity. As a member of the Common Market for Eastern and Southern Africa (COMESA), Malawi is party to the COMESA Digital Free Trade Area framework, which includes provisions for data governance and cross-border data flows. Regional harmonization efforts could provide technical assistance and capacity-building support that complements domestic legislative development.

Although the enactment of the Data Protection Act, 2024, represents a significant milestone in Malawi's data governance framework, bringing the country closer to regional peers such as Kenya, South Africa, and Ghana, several implementation considerations remain:

- a) The operationalization of the Data Protection Authority requires significant institutional capacity building. As a unit within MACRA, the DPA must recruit specialized staff with expertise in data protection law, information technology, and investigations. The DPA's budget, staffing levels, and technical resources will determine its effectiveness in overseeing the financial sector.
- b) The Act requires the development of implementing regulations to clarify key provisions, including the specific conditions for cross-border data transfers, thresholds for mandatory registration, and guidelines for data localization requirements. The DPA's rule-making capacity will be crucial for translating legislative provisions into enforceable standards.
- c) Coordination between the DPA and sectoral regulators, particularly the Reserve Bank of Malawi (RBM), will be essential for effective oversight of fintech operators. The Act provides for such coordination but does not specify mechanisms, leaving room for inter-agency agreements and joint supervisory frameworks.
- d) The Act's provisions on cross-border data transfers will require assessment of data protection frameworks in destination countries, including China. The DPA must develop the capacity to evaluate whether foreign jurisdictions provide "adequate protection" as defined in the Act.

The implication for this study's findings is that Malawi now possesses a robust legal foundation for addressing data externalization risks associated with foreign fintech integration. The Data Protection Act, 2024, provides the RBM and DPA with tools to regulate cross-border data flows, require transparency in data processing, and enforce accountability mechanisms [21]. However, the Act's effectiveness in mitigating sovereignty risks depends critically on its implementation, including the operational capacity of the DPA, development of implementing regulations, and coordination between regulatory agencies. Until these measures are fully realized, vigilance in enforcing data protection standards for foreign fintech operators remains essential.

From a global governance perspective, these commercial engagements are inextricably linked to broader strategic considerations. The involvement of state-linked Chinese entities like the China Development Bank in financing such digital infrastructure projects underscores that this is not purely a market-driven phenomenon. As Ly [30] suggests, the DSR is a strategic tool for capturing emerging markets and building economic relationships. The control over a country's payment infrastructure constitutes a form of "infrastructural power" [22]. In a context of diplomatic tension, this control could theoretically translate into leverage, where the possibility of suspending critical financial services could be used to influence Malawi's position on unrelated political or economic issues. This potential for coercion resonates with the Realist concerns articulated by Morgenthau [33] and Waltz [50] about how asymmetries in power create vulnerabilities for weaker states in the international system. The infrastructural power embedded in digital payment systems represents a new domain for the exercise of state influence, one that operates through the seemingly apolitical channels of commercial technology provision. This represents a fundamental consideration for sovereignty, the potential for a state's autonomous decision-making to be affected by the strategic interests of a more powerful external actor.

5.3. Navigating the Sovereignty-Technology Trade-off

Despite these considerations, the findings indicate that a pathway of passive rejection is neither feasible nor desirable given Malawi's pressing development needs. Instead, the analysis suggests that safeguarding financial sovereignty requires a deliberate and strategic approach to digital governance. The most critical pathway identified is the fortification of domestic regulatory and technical capacity. This involves the Reserve Bank of Malawi (RBM) and other relevant agencies moving beyond framework development to the active cultivation of in-house expertise to audit and supervise complex fintech algorithms and data management practices. Hirawan et al. [24] provide valuable lessons from the Indonesian experience, demonstrating that proactive domestic institution-building is essential for shaping DSR engagement according to national priorities. Their analysis suggests that countries with stronger regulatory frameworks and clearer strategic visions are better positioned to capture benefits while managing risks.

Furthermore, Malawi could pursue a strategy of strategic diversification and interoperability mandates. Rather than relying on a single technological provider, the government could actively encourage a multi-vendor environment, potentially involving European, African, or other Asian partners, to avoid excessive dependence on any one country. Mandating that all digital payment systems, including those provided by Chinese firms, must be interoperable with a national switch controlled by the RBM would be a crucial sovereign safeguard. This approach would prevent the formation of closed, proprietary ecosystems and ensure that the Malawian state retains a central role in its own financial architecture. This aligns with the policy recommendation of de Kluiver & Neethling [11], who argue that African states must prioritize the development of robust digital governance frameworks to engage with external partners from a position of strength rather than vulnerability. This strategic approach echoes Smith's [43] classical insight that while participation in the broader division of labour generates economic benefits, nations must remain attentive to the dependencies such participation creates. Malawi's challenge is to secure the benefits of digital integration while preserving sufficient policy space to chart its own developmental course.

In summary, the key finding of this study is that Chinese fintech expansion in Malawi, while technologically empowering at a micro-level, presents structural considerations at the macro, sovereign level. It raises questions about the potential transfer of control from the Malawian state to Chinese corporate and state entities over critical digital infrastructure and data, thereby affecting the contours of its financial sovereignty in ways that warrant careful policy attention.

6. DISCUSSION

This study set out to investigate how the expansion of Chinese fintech under the Digital Silk Road (DSR) affects the contours of financial sovereignty in Malawi. The findings reveal a process that is neither a simple narrative of benevolent development nor one of overt coercion, but rather a more subtle and structurally embedded transformation. The discussion synthesizes these findings to argue that the DSR in Malawi represents a contemporary manifestation of structural dynamics in the global digital economy, now operating through digital channels, while simultaneously functioning as a mechanism of infrastructural power, embedding external influence into the heart of a vulnerable state's economy.

6.1. Structural Path Dependence and Infrastructural Power

The most salient observation from this analysis is the relationship between the technological path dependencies created by Chinese technology and the influence this affords the Chinese state. The concept of technological lock-in, as observed by Heeks et al. [23], transcends mere vendor loyalty. It constitutes the creation of a digitally dependent relationship, where Malawi's financial system becomes structurally reliant on the technological provider for its very operation and future evolution. This finding echoes concerns in development economics about path dependence in technological adoption. In the 21st century, this dynamic is replicated not through trade in commodities alone, but through the imposition of technological standards and platforms that may stifle local innovation and ensure perpetual reliance. Amin's [1] framework of accumulation on a world scale finds new expression in these digital dependencies, where the extraction of data rather than raw materials becomes the mechanism through which value flows from periphery to core. The structural asymmetries he identified in industrial capitalism are reproduced in the digital economy, but with even greater intimacy and reach.

This structural path dependence forms the basis for the exercise of infrastructural power. From a global governance perspective, the pursuit of influence is a central fact of international politics. The DSR demonstrates that in the modern era, this dynamic is increasingly waged through economic and technological means. Control over a nation's payment systems is not merely a commercial asset; it is a strategic one. As witnessed in other contexts of technological dependence, the entity that controls the critical infrastructure upon which a society depends wields significant latent power. This finding resonates with the analyses of scholars like Eguegu [15], who suggest that the DSR is a vehicle for exporting a distinct digital governance model. For Malawi, the consideration is that its policy autonomy, a core component of sovereignty, becomes potentially circumscribed by the need to maintain compatibility with and access to the technological systems provided by a single, strategic foreign power.

This dynamic illustrates the ongoing relevance of the Realist tradition in international relations, as articulated by Morgenthau [33] and Waltz [50], which emphasizes how power asymmetries shape the options available to states in the international system. Even in an era of digital interdependence, the fundamental logic of state competition and influence-seeking persists, merely finding new expression through technological means. While direct coercion remains hypothetical, the potential for leverage over Malawi's payment systems demonstrates how the political nature of payment systems, as theorized by Maurer [32], becomes a factor in an interconnected world.

6.2. Data as a Critical Resource and the Sovereignty Consideration

A critical dimension of this discussion centers on the role of data. The findings confirm that the externalization of financial data constitutes a fundamental challenge to sovereignty that classical theories of development could not have fully anticipated. The situation in Malawi illustrates a shift from the corporate-led surveillance capitalism described by Zuboff [55] to a form of state-aligned data governance, where the data-extractive business model is executed with the implicit or explicit backing of a state actor. The flow of Malawian financial data to external servers creates a sovereignty consideration. The state loses the capacity to use this aggregated data for its own national economic planning, to protect its citizens from external surveillance, and to ensure that the economic value derived from this data benefits the local economy. This represents a direct challenge to the state's fiduciary and protective responsibilities, which are core to the modern conception of sovereignty. Johnson's [25] dynamic theory of international economic relations anticipated that integration into global systems would create new forms of dependency, though he could not have foreseen the centrality of data to contemporary economic life. The data sovereignty challenges facing Malawi represent a twenty-first-century manifestation of the structural concerns he identified.

The assessment of Malawi's data protection framework in Section 5.2.1 reveals significant progress in addressing these sovereignty concerns. The enactment of the Data Protection Act, 2024, which came into force on June 3, 2024, provides the foundational tools for mitigating data externalization risks associated with Chinese fintech integration [21]. However, the Act's effectiveness depends critically on implementation. The Data Protection Authority within MACRA requires substantial capacity building, including specialized staffing, development of implementing regulations, and coordination with the Reserve Bank of Malawi. Until these institutional capacities are fully developed, the sovereignty deficit created by data externalization remains a governance challenge requiring sustained policy attention. The passage of the Act marks a necessary but not sufficient condition for effective data sovereignty.

The findings from Malawi provide a compelling case study that illustrates concerns about digital dependence [29], demonstrating how technological reliance and data externalization converge to create a sovereignty challenge. The dependence created is not just on a product, but on an entire ecosystem for economic life, and the resource being externalized is the informational representation of that life itself. This creates a form of reliance that is more intimate, comprehensive, and potentially more durable than reliance on a single commodity export.

6.3. Development, Path Dependence, and Sovereignty

The proposed pathways for Malawi, namely regulatory fortification and strategic diversification, highlight a profound set of choices faced by states in the Global South. They must simultaneously pursue rapid digital development to meet citizen needs, manage new forms of structural path dependence, and preserve their national sovereignty. The findings suggest that there is no risk-free path. Engaging with the DSR offers a fast track to technological upgrading, but at the potential cost of reduced policy autonomy. Conversely, a go-it-alone approach may preserve autonomy but at the cost of prolonged financial exclusion and economic stagnation. This trade-off reflects the classical concerns of development economics about the terms on which developing countries integrate into global systems. As Krugman [28] and Rodrik [38] have argued, the benefits of integration are not automatic but depend critically on domestic institutions and their capacity to shape engagement according to national priorities.

The analysis of institutional capacity in Section 5.1.1 suggests that Malawi faces significant but not insurmountable challenges in implementing these pathways. The RBM's resource constraints,

limited technical expertise, and budgetary limitations are real obstacles, but they can be addressed through phased implementation, regional partnerships, and targeted donor support. The experience of other regulatory domains, such as telecommunications oversight through MACRA, demonstrates that capacity can be built over time with sustained investment and political commitment. The question is not whether Malawi can develop the necessary regulatory capacity, but whether the political will exists to prioritize digital governance and whether international partners will provide the technical assistance required.

The viable middle path, as inferred from the analysis, requires a level of state capacity and strategic foresight that is itself a scarce resource in many developing contexts. It necessitates what Carmody [7] describes as the exercise of agency within a constrained field. This agency is evident in Malawi's push for interoperability and regulatory fortification, which can be interpreted as a defensive sovereign strategy. However, a more proactive form of agency lies in leveraging its position as a site of strategic interest. By consciously diversifying its technological partners and avoiding exclusive deals, Malawi could, in theory, harness competitive dynamics between China, Western nations, and other regional powers to secure more favourable terms, better protect its data, and retain greater policy space. This strategic approach resonates with the comprehensive frameworks for understanding international economic relations developed by Nie et al. [34], Zhang et al. [53], and Zhou [54], who emphasize that developing countries must actively manage their engagement with global systems rather than passively accept the terms offered by more powerful actors. Whether it can effectively execute this complex balancing act remains the central challenge of its digital sovereignty.

This aligns with the pragmatic recommendations of de Kluiver & Neethling [11], who stress that African agency in the digital age must be exercised primarily through the deliberate and savvy construction of domestic governance frameworks. The Indonesian experience documented by Hirawan et al. [24] offers both encouragement and caution, indicating that proactive governance can shape DSR outcomes, but it requires sustained institutional capacity and political will that are not easily assembled or maintained.

6.4. Theoretical Implications

This discussion affirms that the Digital Silk Road's impact on Malawi is best understood through the integrated lens of global governance and development economics. The project is creating a new, digital-era form of path dependence that is structurally embedded and strategically significant. The case of Malawi serves as an illustrative example for other cash-limited societies. The very tools that promise to bridge the financial divide can also become the conduits for a subtle but significant erosion of economic self-determination.

The central argument of this paper, therefore, is that Chinese fintech expansion, under the guise of the DSR, represents a potent form of economic statecraft that may create institutional path dependencies binding Malawi to China's strategic interests. This presents challenges to Malawi's financial sovereignty in profound and potentially path-dependent ways. The theoretical frameworks developed by Amin [1], Johnson [25], and Spero & Hart [44] remain remarkably relevant for understanding these contemporary dynamics, demonstrating the enduring value of structural and institutional approaches to international economic relations. The analysis also underscores the need to integrate questions of institutional capacity and data governance into these classical frameworks, as the digital age introduces new dimensions of sovereignty that earlier theories could not fully anticipate. Future research should track the implementation of Malawi's digital governance policies to assess the viability of strategic diversification as a counter to technological lock-in and to further explore the lived experience of this digital transition at the grassroots level.

7. CONCLUSION

This study demonstrates that Chinese fintech expansion under the DSR presents Malawi with a fundamental sovereignty-technology trade-off. While offering solutions to financial exclusion, it simultaneously creates path dependencies through technological lock-in and data externalization that may constrain long-term policy autonomy. As such, it contends that the narrative of the Digital Silk Road as a purely benevolent project of digital development is fundamentally incomplete without

considering its structural implications. For Malawi, it represents both opportunity and challenge. It offers the promise of leapfrogging traditional financial barriers while simultaneously raising questions about long-term policy space and the embedding of foreign influence within its economic core. As Smith [43] recognized centuries ago, participation in the broader division of labour generates wealth but also creates dependencies that must be carefully managed. This classical insight remains profoundly relevant in the digital age.

The case of Malawi serves as a critical precedent, illustrating that in the 21st century, sovereignty is challenged not only by military force or economic sanctions but also by the quiet, systemic, and deeply embedded influence exerted through the control of the digital infrastructures that underpin modern economic and social life. The preservation of financial sovereignty in the digital age will therefore depend less on the refusal of foreign technology and more on the cultivation of the state's own capacity to govern, regulate, and strategically manage its engagement with the architects of the new digital world order. The comprehensive frameworks for understanding international economic relations developed by scholars such as Nie et al. [34], Zhang et al. [53], and Zhou [54] remind us that effective engagement with global systems requires both theoretical understanding and practical capacity—a dual challenge that Malawi and similarly situated countries must now confront.

Funding Statement: I have no sponsorship or funding for this paper

Contribution: Conceptualization, Methodology, Writing - original draft, Writing - review & editing, Formal analysis

Informed Consent Statement: I provided the information sheet to potential participants and, to the best of my ability, ensured that they understood the study. I confirm that the participants were allowed to ask questions, and all questions were answered correctly. I confirm that the individuals were not coerced into giving consent and that the consent was given freely and voluntarily.

Data Availability Statement: The data that support the findings of this study are available on request from the corresponding author.

Conflict of Interest Statement: I have no interests to declare.

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