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SILICON SAVANNAH AT THE CROSSROADS: THEORETICAL FOUNDATIONS, IDENTIFICATION STRATEGY, AND POLITICAL ECONOMY OF AI-LED DIGITAL AGGLOMERATION IN KENYA'S REGIONAL VALUE CHAINS

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ABSTRACT

Kenya's 'Silicon Savannah' strategy, anchored by Konza Technopolis, the M-Pesa mobile-money ecosystem, and a fast-growing developer community, is frequently cited as a template for African digital-led structural transformation. Yet the empirical literature evaluating its micro-level productivity effects, regional trade spillovers, and spatial political economy remains thin and fragmented. Existing analyses conflate general ICT diffusion with frontier AI adoption, treat digital hubs as isolated urban phenomena, and rely on descriptive rather than identified firm-level estimates.

This review develops an integrated theoretical framework combining New Economic Geography, directed technical change, and structural-gravity trade theory, translated into a pre-fielding empirical design: a stratified enterprise-survey protocol with an endogenous switching-regression strategy for heterogeneous total factor productivity (TFP) effects of AI adoption, and a Poisson pseudo-maximum-likelihood (PPML) gravity specification, extendable to a spatial autoregressive framework, for how digital-payment interoperability and customs automation affect non-tariff trade costs along the Northern Corridor.

The paper formalizes testable hypotheses linking infrastructure, credit, and skill thresholds to an AI adoption trap for informal micro-enterprises; specifies an identification strategy for the regional trade effects of digital public infrastructure under the African Continental Free Trade Area; and develops a political-economy account of digital-enclave risk at Konza Technopolis, situated within the literature on special economic zones and premature deindustrialization in Africa.

It closes with four policy pillars, regional cloud and data sovereignty, agro-AI value-chain linkages, digital-trade regulatory harmonization, and rural TVET-based AI skilling, intended to convert Silicon Savannah from an urban technology enclave into an integrated regional digital common.

Keywords: Silicon Savannah; Artificial intelligence adoption; Digital agglomeration; AfCFTA; Special economic zones

1 INTRODUCTION

Digitalization and artificial intelligence (AI) have moved from speculative technologies to central pillars of national economic strategy across the Global South. Within Sub-Saharan Africa, Kenya has positioned itself at the vanguard of this transformation. Dubbed the 'Silicon Savannah,' Kenya's digital ecosystem, anchored by the flagship Konza Technopolis project, the internationally studied M-Pesa mobile-money system, and an expanding software-developer community, seeks to use digital infrastructure as a primary driver of structural transformation. Konza itself has evolved considerably since its conception under Vision 2030: by 2025, its first phase (including a Tier III National Data Centre and the Kenya Advanced Institute of Science and Technology) was reported to be over 90 percent complete, with total planned investment in the multi-billion-dollar range and an explicit ambition to serve as a regional data-sovereignty and connectivity hub.

The macroeconomic promise of this strategy is real but uneven. Cross-country evidence on AI adoption in Sub-Saharan Africa consistently finds that uptake remains far below that of other regions, that adoption is concentrated in a narrow band of digitally connected firms, and that the potential productivity dividend, estimated at up to several percentage points of cumulative growth over a decade under favorable conditions, depends critically on whether adoption diffuses beyond incumbent formal firms (International Monetary Fund, 2026). At the same time, mobile-money research on Kenya specifically, most prominently the long-run panel study of M-Pesa (Suri & Jack, 2016), has shown that digital financial infrastructure can generate measurable consumption and poverty effects, although these headline estimates have themselves been the subject of methodological critique (Bateman et al., 2019), underscoring the need for careful, transparent identification in this literature rather than restating widely cited figures uncritically.

Despite the high-level policy discourse surrounding Silicon Savannah, three limitations recur in the literature this review synthesizes. First, studies frequently conflate general ICT or mobile-phone penetration with frontier AI and machine-learning adoption, a distinction that matters because the fixed costs, complementary skills, and infrastructure thresholds required for AI differ materially from those for basic connectivity. Second, research on digital hubs tends to treat them as self-contained urban phenomena rather than as nodes embedded in regional, cross-border value chains, a framing at odds with Kenya's stated ambition to use digitalization as a channel for deeper integration under the African Continental Free Trade Area (AfCFTA). Third, much of the discourse on enterprise digitalization in Africa remains descriptive, lacking a micro-econometric identification strategy capable of separating the causal productivity effect of AI adoption from the selection of already-productive firms into adoption.

This review responds to these gaps by developing, in an integrated and fully specified form, the theoretical framework and empirical identification strategy needed to answer a central question: does Kenya's Silicon Savannah function as a genuine engine of regional structural transformation, or does it risk reproducing the enclave dynamics long documented in the special-economic-zone literature? The review pursues three objectives. First, it formalizes the micro foundations of enterprise AI adoption and derives testable hypotheses about heterogeneous productivity effects across firm types, linking these to the infrastructure, credit, and skills constraints emphasized in the literature on AI adoption barriers in Sub-Saharan African SMEs. Second, it specifies an identification strategy, a structural gravity model estimated by Poisson pseudo-maximum likelihood, extendable to a spatial autoregressive framework, for quantifying how digital payments interoperability (the Pan-African Payment and Settlement System, PAPSS) and customs digitization reduce non-tariff trade costs along the Mombasa-Nairobi-Kampala-Kigali Northern Corridor. Third, it develops a political-economy analysis of the institutional design of Konza Technopolis and other Kenyan special economic zones, drawing on the SEZ-urbanism and premature-deindustrialization literatures to assess the risk that high-tech agglomeration in metropolitan hubs fails to generate backward linkages into agriculture and light manufacturing.

The remainder of the review is organized as follows. Section 2 (Materials and Methods) sets out the review approach, develops the theoretical framework across three literatures, agglomeration economics, enterprise technology adoption, and structural-trade models of non-tariff frictions, formalizes the conceptual model and hypotheses, and specifies the proposed empirical identification strategy and data design. Section 3 (Results and Discussion) presents the political-economy analysis of digital-enclave risk, a four-pillar policy framework, and a discussion of the review's contribution, scope, and limitations. Section 4 concludes.

2 MATERIAL AND METHODS

This review follows a narrative, theory-integrating methodology rather than a systematic-review protocol: it synthesizes three normally separate strands of economic literature, agglomeration economics, enterprise technology-adoption theory, and structural-gravity trade theory, into a single analytical framework, and then translates that framework into a fully specified but not-yet-fielded empirical identification strategy. Sources were selected for direct theoretical or empirical relevance to Kenya's digital economy, AI adoption in Sub-Saharan Africa, and regional trade integration under the AfCFTA, drawing on peer-reviewed journal articles, World Bank and IMF technical reports, and recent working papers where peer-reviewed evidence was not yet available. Sections 2.2 through 2.5 present the theoretical framework; Section 2.6 formalizes the resulting hypotheses; and Section 2.7 specifies the proposed empirical design through which those hypotheses are to be tested in future fieldwork.

2.1 Agglomeration Externalities and the Geography of Digital Production

Following Krugman's (1991) foundational account of increasing returns and economic geography, and its systematic elaboration by Fujita, Krugman, and Venables (1999), urban agglomerations generate localized externalities through thick labor-market pooling, intermediate-input sharing, and knowledge spillovers. These forces produce a core-periphery structure in which activity concentrates where market access is greatest, with divergence sustained until transport or communication costs fall enough to permit dispersion. Digital production complicates this picture. Goldfarb and Tucker (2019), in their survey of digital economics, argue that digitalization lowers several of the classical costs of distance, search, replication, transportation, tracking, and verification, but does not eliminate the localized network-density and talent-pooling effects that underpin agglomeration; if anything, digital activity clusters intensely around a small number of hubs with adequate connectivity, capital, and skilled labor. Silicon Savannah functions as precisely such a hub, concentrating software engineers, venture capital, and research infrastructure at Konza and in Nairobi's innovation corridor. The New Economic Geography literature implies that, absent deliberate policy to lower the effective distance between hub and periphery, through connectivity, logistics, and skills investment, digital agglomeration can just as easily produce sharpened domestic core-periphery divergence as it can produce dispersion.

2.2 Enterprise Technology Adoption, TFP Heterogeneity, and the AI Adoption Trap

The review models enterprise AI adoption using the directed-technical-change logic of Acemoglu (2002), in which the profitability of adopting a new technology depends on its interaction with the existing factor endowment of the firm, together with the task-based automation framework of Acemoglu and Restrepo (2019), which distinguishes a displacement effect (automation substitutes for labor in existing tasks) from a reinstatement effect (new technology creates new labor-intensive tasks). Firm heterogeneity in the capacity to absorb fixed adoption costs, in the spirit of Melitz's (2003) treatment of heterogeneous firms and selection into export markets, implies that only firms above a productivity-and-capital threshold will find AI adoption profitable once fixed costs are incorporated. Formally, firm i adopts AI technology where the expected value of the productivity gain exceeds the fixed cost of deployment:

$$E\,[\Delta TFPi \mid AIi = 1] \times Pi - Fi\,(Latencyi, Skillsi, Crediti) > 0$$

where Fi (·), the fixed cost of AI deployment, is increasing in cloud-infrastructure latency, the severity of the firm's skilled-labor deficit, and its degree of credit constraint, and is generally decreasing in firm size and formality. Because these arguments of Fi (·) are themselves correlated with firm size and formal-sector status, the model predicts a nonlinear 'adoption trap': capital-constrained informal micro, small and medium enterprises (MSMEs) face a compounding set of barriers that push their effective adoption probability toward zero even where the underlying productivity gain from AI would be large. This prediction is consistent with the broader empirical literature on AI-adoption barriers among Sub-Saharan African SMEs, which identifies inconsistent regulation, weak digital infrastructure, and skills gaps as binding constraints on productivity-enhancing digitalization, and with cross-country evidence that AI's aggregate growth dividend for the region depends on whether adoption diffuses beyond an already-connected minority of firms (International Monetary Fund, 2026). It is also consistent with evidence from other institutional settings, for example UK administrative-data analysis showing AI-adoption rates rising steeply with firm size (Bennett School of Public Policy, 2026), that adoption is systematically firm-size dependent even in higher-capacity economies, suggesting the threshold mechanism modelled here is not specific to Kenya but is likely to bind more tightly where credit and connectivity constraints are more severe. At the same time, the literature cautions against assuming immediate or mechanical productivity gains from adoption: the 'AI productivity paradox' documented by Brynjolfsson, Rock, and Syverson (2019) suggests that measured TFP effects can lag adoption considerably as firms undertake complementary organizational investments, a consideration incorporated into the identification strategy in Section 2.7.

2.3 Digital Infrastructure, Financial Interoperability, and Trade Costs

A second theoretical strand concerns the trade-cost implications of digital financial and customs infrastructure. Non-tariff barriers (NTBs), including opaque customs procedures, physical border delays, and currency-conversion frictions, are widely regarded in the AfCFTA literature as a larger constraint on intra-African trade than tariffs themselves (Fofack, 2021); IMF structural-gravity estimates find that plausible reductions in non-tariff measures, combined with improvements in the broader trade-enabling environment, would substantially boost intra-African trade in goods and services and support deeper integration into regional value chains (International Monetary Fund, 2023; World Bank, 2024). Currency-conversion costs specifically have been estimated at roughly five billion dollars annually across the continent, motivating the 2022 launch of the Pan-African Payment and Settlement System (PAPSS) by Afreximbank and the African Union (Carnegie Endowment for International Peace, 2022) as a real-time, local-currency settlement infrastructure intended to remove the need to route African-to-African payments through third currencies.

Regulatory-barrier analyses of PAPSS rollout suggest that eliminating additional foreign-exchange conversion costs could plausibly raise intra-continental trade volumes by roughly 10 to 15 percent by 2030 in countries with relatively low currency-control barriers such as Kenya and Ghana, though gains are considerably smaller in jurisdictions with tighter capital controls unless those controls are eased. Realized effects depend heavily on the pace of harmonizing know-your-customer, anti-money-laundering, and data-localization rules across participating states. Digital financial infrastructure has separately been shown, in Kenya specifically, to generate real household-level effects: the long-run panel evaluation of M-Pesa by Suri and Jack (2016) estimated that access to mobile money lifted a meaningful share of Kenyan households out of poverty, building on earlier work by Jack and Suri (2014) documenting the risk-sharing benefits of the platform, though these headline magnitudes have been contested on methodological grounds by Bateman, Duvendack, and Loubere (2019), a debate this review treats as a reminder to report confidence intervals and robustness checks rather than point estimates alone when the proposed gravity and switching-regression models are eventually estimated.

2.4 Special Economic Zones, Enclave Development, and Structural Transformation

The third theoretical strand concerns the political economy of spatially concentrated technology investment. The World Bank's comparative review of African special economic zones (Farole, 2011) found that SEZ performance across the continent has been decidedly mixed, with backward linkages into domestic supply chains frequently failing to materialize absent deliberate local-content and skills policy. More recent work on 'SEZ urbanism' in Africa (Gao & Wang, 2025) explicitly identifies Konza Technopolis as an instance of a high-tech enclave in which capital accumulation through infrastructure and real-estate development can proceed largely independently of the surrounding regional economy, echoing longstanding concerns in the SEZ literature that zones can function as extraterritorial pockets of foreign-linked capital rather than as engines of national industrial upgrading. This risk connects directly to Africa's broader structural-transformation trajectory: Rodrik (2016) and McMillan, Rodrik, and Verduzco-Gallo (2014) document that manufacturing employment shares in many African economies have peaked 'prematurely,' at markedly lower levels of per-capita income than in the historical East Asian experience, leaving labor to shift into low-productivity informal services rather than into higher-productivity tradable sectors. Oqubay's (2020) treatment of African economic development similarly emphasizes that industrial-policy instruments, including technology hubs and SEZs, generate durable structural transformation only where they are deliberately designed to build linkages with the surrounding economy rather than to attract stand-alone foreign investment. Read together, this literature motivates the review's central political-economy concern: that Silicon Savannah's institutional design will determine whether it functions as connective infrastructure for the wider Kenyan and East African economy or as a digital analogue of the enclave pattern long documented in Africa's SEZ experience.

2.5 Conceptual Model and Testable Hypotheses

Combining the three theoretical strands above, the review advances three formal, testable hypotheses that structure the proposed empirical strategy in Section 2.6.

- **H1 (Micro-level adoption trap).** The probability of enterprise AI adoption is a nonlinear, threshold function of cloud-infrastructure latency, credit access, and skilled-labor availability, such that informal MSMEs face a systematically and substantially lower adoption probability than capital-intensive formal firms even after conditioning on sector and firm age.
- **H2 (Regional trade integration).** Digital-payments interoperability (PAPSS uptake) and customs-clearance automation are associated with a statistically and economically meaningful reduction in effective non-tariff trade costs along the Northern Corridor, over and above the effect of physical infrastructure and geographic distance.
- **H3 (Enclave risk).** In the absence of deliberate backward-linkage policy, local-content requirements, agro-AI grant conditionality, and rural TVET investment, employment and value-added growth at Konza Technopolis will remain statistically disconnected from productivity growth in adjacent agricultural and light-manufacturing sectors, consistent with the enclave pattern documented in the broader African SEZ literature.

2.6 Proposed Empirical Strategy and Data

This section specifies the identification strategy through which H1-H3 are to be tested. The strategy is presented as a fully specified research protocol rather than as completed results: fieldwork for the enterprise survey is at the design stage, and the effect sizes reported in Table 2 are drawn from comparable published studies to guide statistical power calculations and to benchmark the hypotheses above, they are not this review's own estimates. This framing is intended to give readers and future collaborators a concrete basis for feedback on design choices (sampling frame, instruments, estimator) prior to fielding, and to make the ultimate estimates fully reproducible and auditable when reported in a subsequent empirical paper.

2.6.1 Micro-Level Design: Enterprise Survey and Endogenous Switching Regression

The proposed enterprise survey targets a stratified sample of approximately 1,200 firms across four strata chosen to span the adoption-cost gradient implied by Section 2.2: ICT and software services; agro-processing and value-chain enterprises; light manufacturing and SEZ-based firms; and informal retail and trade MSMEs. Table 1 sets out the proposed sampling frame, stratified across Nairobi, Mombasa, Kisumu and Nakuru together with rural agro-processing corridors, with allocation weighted toward strata expected to exhibit the greatest heterogeneity in adoption costs. To identify the causal TFP effect of AI adoption net of selection on unobservables, the review proposes an endogenous switching-regression design following Lokshin and Sajaia (2004), estimated by full-information maximum likelihood: a first-stage selection equation models the adoption decision as a function of latency, credit access, and skills availability (the arguments of Fi(·) in Section 2.2), while regime-specific outcome equations estimate the TFP relationship separately for adopting and non-adopting firms, correcting for the correlation between the selection and outcome error terms. This approach directly addresses the concern, raised in the corporate-AI-adoption literature, that naive comparisons of adopters and non-adopters generate substantial upward bias in estimated AI effects because more productive firms self-select into adoption.

2.6.2 Meso-Level Design: Gravity Analysis of Regional Trade Corridors

To test H2, the review proposes an augmented structural gravity model of bilateral trade flows among Kenya, Uganda, Rwanda, and Tanzania along the Northern Corridor, estimated by Poisson pseudo-maximum likelihood (PPML) following Santos Silva and Tenreyro (2006), whose estimator is preferred over log-linearized OLS gravity specifications because it remains consistent in the presence of heteroskedasticity and zero trade flows, both common features of disaggregated African bilateral trade data. The specification augments the standard distance-and-GDP gravity controls with a digital-payments-interoperability index (PAPSS uptake), a customs-automation index, and a cross-border data-policy harmonization index, together with exporter-time and importer-time fixed effects to absorb multilateral resistance terms. Where spatial dependence across corridor nodes is material, the design can be extended to a spatial autoregressive (SAR) specification following LeSage and Pace (2009), allowing trade-cost shocks at one border post to propagate to adjacent nodes along the corridor.

2.6.3 Benchmarking Anticipated Effects Against the Published Literature

Table 2 reports indicative magnitudes drawn from comparable, published studies. These figures are presented explicitly as external benchmarks for power calculations and for interpreting the review's eventual estimates, not as this review's own findings, and each is attributed to its source.

Table 1: Proposed Enterprise Survey Sampling Frame (Design Stage)

Stratum	Sampling Locations	Rationale for Inclusion
ICT & software services	Nairobi (Konza corridor, Upper Hill, Westlands)	Expected upper bound of adoption-cost gradient
Agro-processing & value chains	Nakuru, Kisumu, rural agro-corridors	Tests agro-AI linkage potential (Section 3.2)
Light manufacturing & SEZ-based firms	Mombasa, Athi River, Konza SEZ	Tests SEZ backward-linkage hypothesis (H3)
Informal retail & trade MSMEs	Nairobi, Mombasa, Kisumu informal markets	Expected lower bound / adoption-trap test (H1)

Table 2: Indicative Benchmark Magnitudes from Comparable Published Studies

Mechanism	Indicative Magnitude	Source
AI adoption rate by firm size	Large firms (250+ employees) rose from <20% (2023) to ~44% (2025); small firms (<50 employees) reached ~26% over the same period	(Bennett School of Public Policy, 2026)
Region-wide AI growth dividend, decade horizon	Up to ~4% cumulative growth if adoption broadens beyond connected firms	(International Monetary Fund, 2026)
Currency-conversion cost avoided via PAPSS	~US$5 billion annually, continent-wide	(Carnegie Endowment for International Peace, 2022)

Mobile-money access → household poverty	~194,000 households (~2% of Kenyan households) lifted out of poverty	(Suri & Jack, 2016) (magnitude contested; see Section 2.3)
NTB reduction → intra-African trade	Substantial trade-flow increase from halving non-tariff measures	(International Monetary Fund, 2023)

Note: The AI-adoption-by-firm-size and PAPSS regulatory-barrier figures in Table 2 have been updated from the original draft's unreferenced estimates to a sourced figure for AI adoption by firm size (Bennett School of Public Policy, 2026).

3 RESULTS AND DISCUSSION

As this is a theory-integrating review rather than a completed empirical study, the 'results' synthesized here are the substantive conclusions that follow from combining the three literatures in Section 2 with the proposed identification strategy: a political-economy account of digital-enclave risk (Section 3.1), a four-pillar policy framework derived directly from that analysis (Section 3.2), and a discussion of the review's contribution, scope, and limitations (Section 3.3).

3.1 Political Economy of the Digital Enclave

A central political-economy hazard facing Kenya is the risk of constructing a digital enclave: an ecosystem of foreign-funded start-ups and high-income software specialists that remains largely detached from the broader domestic structural transformation. This risk is not hypothetical. As noted in Section 2.4, recent analysis of African SEZ urbanism explicitly identifies Konza as an example of a high-tech enclave in which real-estate and infrastructure capital accumulation can proceed with only loose connection to the surrounding regional economy (Gao & Wang, 2025), and Farole's comparative World Bank assessment of African SEZs more broadly found that backward linkages into domestic supply chains have historically been the exception rather than the rule (Farole, 2011).

Two institutional design features determine which trajectory Konza follows. First, if Konza operates predominantly as a real-estate and data-infrastructure development, as its early phases, focused on roads, utilities, and the National Data Centre, arguably were, rather than as an integrated innovation network with binding local-content and skills-transfer requirements, its backward linkages to agriculture and light manufacturing are likely to remain negligible, consistent with H3. Second, the degree to which AI-related public investment is explicitly directed toward tradable-sector applications with wide employment footprints, rather than toward capital-intensive, skill-biased software and BPO activity alone, will shape whether the productivity gains identified in Section 2.2 diffuse beyond the formal urban tech sector. This connects directly to the premature-deindustrialization literature (Rodrik, 2016; McMillan et al., 2014): where structural transformation in Africa has already tended to bypass manufacturing in favor of low-productivity services, an AI strategy concentrated in urban software services risks reinforcing rather than correcting that pattern, whereas an AI strategy deliberately targeted at agricultural and light-manufacturing productivity could help address it.

3.2 Policy Framework

To convert Silicon Savannah's agglomeration potential into durable regional structural transformation, and to address the enclave risk identified in Section 3.1, the review proposes four policy pillars, each tied to a specific mechanism identified in the theoretical and empirical framework above.

- **Regional digital public infrastructure and cloud sovereignty.** Establish regional cloud-computing nodes at Konza with East African Community (EAC)-wide data-sharing protocols, directly targeting the cloud-latency term in Fi(·) (Section 2.2) that is shown to be a binding constraint on adoption by cross-border enterprise applications.
- **Agro-AI value-chain linkages.** Condition state-backed AI innovation grants on demonstrated application to climate-smart agrifood supply-chain optimization, regional pest and yield modelling, and digital warehouse receipts, directly targeting the backward-linkage mechanism tested in H3.
- **Regulatory harmonization under the AfCFTA digital-trade protocol.** Harmonize data-protection law, cross-border fintech licensing, and AI-governance frameworks across the EAC and the wider AfCFTA bloc, addressing the regulatory-fragmentation constraint identified in the PAPSS rollout literature as a binding factor behind cross-country variance in early transaction volumes.
- **Targeted technical and vocational AI education.** Extend AI and software-engineering curricula into rural Technical and Vocational Education and Training (TVET) institutions rather than concentrating skills investment in elite urban universities, addressing the skills term in Fi(·) and responding to documented AI-skills shortages that current continental initiatives, including national coding and digital-ambassador programs, have only begun to close.

3.3 Contribution, Scope, and Limitations

This review's contribution is a fully specified, theoretically grounded, and methodologically transparent research design for evaluating Silicon Savannah's micro- and meso-level effects, a contribution distinct from, but complementary to, a completed empirical study. Three limitations follow directly from this scope and should guide both future discussion and the review's next iteration. First, the switching-regression and gravity estimates described in Section 2.6 have not yet been executed on primary data; the benchmark magnitudes in Table 2 are drawn from other contexts and should not be read as predictions specific to Kenya's Northern Corridor. Second, the enterprise-survey design proposed in Table 1 will require piloting to confirm that latency, credit-constraint, and skills measures can be collected with adequate reliability from informal-sector respondents, a known challenge in African firm-level survey work. Third, the political-economy analysis in Section 3.1, while grounded in the comparative SEZ literature, would benefit from primary qualitative evidence, interviews with Konza Technopolis Development Authority officials and affected agricultural cooperatives, that lies outside the scope of the present design. The author intends to field the enterprise survey and estimate the gravity specification in the next phase of this research program.

4 CONCLUSION

Kenya's Silicon Savannah initiative presents a genuine opportunity to catalyze African structural transformation through digitalization and AI, but the theoretical and comparative evidence reviewed here suggests that this outcome is not automatic. The New Economic Geography literature indicates that digital agglomeration can as easily sharpen core-periphery divergence as it can generate dispersion; the enterprise-technology-adoption literature indicates that AI's productivity dividend will bypass credit- and infrastructure-constrained MSMEs absent deliberate intervention; and the comparative SEZ literature, including analysis that names Konza directly, indicates a material risk that high-tech hubs remain enclaves rather than becoming connective regional infrastructure. By specifying a rigorous identification strategy for testing these mechanisms, and by grounding the resulting policy framework in the empirical trade-cost and skills-gap literature, this review aims to move the evaluation of Silicon Savannah from aspirational discourse toward a testable, policy-relevant research agenda for African digital structural transformation.

STATEMENTS ON COMPLIANCE WITH ETHICAL STANDARDS

Disclosure of conflict of interest

The author declares no conflict of interest.

Statement of ethical approval

This review is based entirely on secondary published literature and a proposed, not-yet-fielded empirical design; it does not involve human or animal subjects, and no ethical approval was therefore required for the work reported here. Ethical clearance will be sought from the relevant institutional review board prior to fielding the primary enterprise survey described in Section 2.6.1.

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