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Content Details:

Bongs Lainjo(Author) <i>Cybermatrice International Inc</i>	Enhancing Supply Chain Management through Artificial Intelligence
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Abstract

This article aims to comprehensively analyse the integration of artificial intelligence (AI) in supply chain management (SCM), focusing on its objectives, methods, analysis, findings, and contributions to innovation and improvement. The primary goal is to evaluate the impact of AI on SCM processes, considering its benefits and challenges. The study adopts a systematic literature review (covering articles published between 2010 and 2022) to examine the existing research and extract valuable insights into AI's role in SCM. It critically considers the challenges, benefits, and future prospects of this integration, highlighting its complex effects on supply chain processes. Key findings show that AI-driven algorithms greatly improve demand forecasting accuracy, optimise inventory management, enhance transportation strategies, and streamline logistics operations. Challenges include issues with data quality, decision-making biases, cybersecurity risks, and the necessity for human oversight. The review identifies these gaps and challenges, emphasising the importance of data standardisation, specialised skills, and ethical considerations in successful AI adoption. A significant contribution of this research is its thorough analysis of the strengths and limitations of incorporating AI into SCM. By providing a balanced perspective, the study recognizes data quality issues, ethical concerns, biases, cybersecurity risks, and the need for human oversight. This analysis offers a valuable foundation for organisations to make informed decisions regarding AI adoption and implementation within their supply chain operations.

Keywords: Artificial intelligence, supply chain management, optimization, algorithms, integration, benefits, challenges, predictive analytics, inventory management, demand forecasting,

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EKI, Ogadima Divine(Author) <i>Promona Collections</i>	Research-Fintech-Driven Funding Models for Sustainable Fashion Enterprises in West Africa
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Abstract

This research explores the transformational impact of fintech-driven funding models on sustainable fashion enterprises in West Africa, with a focused case study of Promona Collections. Drawing on a comprehensive review of industry reports, policy documents, and case studies, the study analyzes how mobile money, crowdfunding, blockchainbased finance, digital lending, and embedded finance mechanisms have expanded access to capital, enhanced operational agility, and promoted environmental and social inclusion within the sector. The integration of fintech solutions by Promona Collections enabled significant business growth, facilitated broader artisan workforce participation, and improved financial inclusion for women and rural communities. The findings show that fintech innovations are critical for overcoming entrenched barriers to formal finance, reducing operational risks, democratizing startup capital, and enabling sustainable manufacturing practices. The paper concludes that continued progress requires concerted efforts in regulatory harmonization, digital infrastructure development, and targeted financial literacy education to ensure inclusive and scalable benefits for the West African fashion ecosystem.

Keywords: fintech, sustainable fashion, West Africa, funding models, SMEs, mobile money, crowdfunding, blockchain, digital lending, financial inclusion

Introduction

The intersection of fintech and sustainable fashion stands as one of the most promising frontiers for advancing economic growth, environmental stewardship, and social equity in West Africa. As the region contends with legacies of underinvestment, supply chain fragmentation, and competitive pressures from global fast fashion, forward-thinking enterprises are leveraging digital technologies not only to access funding, but also to reimagine their business models for longevity and global competitiveness. This paper probes the transformational potential of fintech-driven funding for sustainable fashion enterprises, spotlighting Promona Collections as an illuminative case study. The discourse extends from the macro-level ecosystem-policy, regional leadership in fintech, digital infrastructure-to micro-level narratives that typify the emergent success stories in West African fashion.

In the post-pandemic landscape, West African fintech has surged ahead, supported by high rates of mobile phone adoption, digital payment infrastructure, and a vibrant startup ecosystem. These advancements have cascaded into the creative economy, notably fashion, where mobile money,

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crowdfunding, blockchain-based finance, and digital lending have opened new pathways to capital for small and medium enterprises (SMEs) that historically faced daunting hurdles accessing formal finance¹. The region's innovative spirit is increasingly recognized on the global stage, not only for the scaling of high-tech unicorns like Flutterwave and OPay, but also for the proliferation of purpose-driven fashion brands balancing profit, culture, and environmental impact².

Within this context, this paper analyzes the challenges facing sustainable fashion businesses, the fintech solutions addressing these barriers, and the measurable impact on scaling and sustainability. The embedded case of Promona Collections provides a grounded perspective, illustrating the integration of fintech models into daily operations and the broader implications for social, economic, and ecological resilience across West Africa. The analysis draws on recent industry reports, regulatory documents, and a

broad spectrum of sectoral evidence, positioning West African sustainable fashion at the forefront of African business and technology innovation.

Literature Review

Sustainable Fashion Enterprises in West Africa: Ecosystem Overview

Sustainable fashion in West Africa is characterized by a blend of ancestral craft, entrepreneurship, and adaptive innovation. With a market valued at approximately \$31 billion in 2020 and growing, the region's fashion industry spans bespoke tailoring, custom ready-to-wear collections, and design-driven manufacturing, integrating local artisanal skills with contemporary aesthetics³⁴. Nigerian and Ghanaian designers, among others, have achieved international recognition, leveraging the creative richness of their heritage and demonstrating models for sustainability-offering alternatives to the homogeneity and ecological toll of global fast fashion models⁴.

Sustainable fashion in West Africa is defined by several unique attributes:

- **Customised Prêt-a-Porter:** Unlike Western or Asian mass production, West African "customised ready-to-wear" leverages limited-edition runs, allowing focus on craftsmanship, environmental management, and individual customer profiles⁴.
- **Cultural Embeddedness:** Fashion is a canvas for identity, celebration, and community expression, reinforcing social bonds and harnessing local materials like kente, aso oke, and organic wax prints.
- **Circularity and Longevity:** Many designers encourage longevity through durable fabrics, careful laundering guidance, upcycling, and measured production cycles; upcycled and

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remanufactured textiles are increasingly mainstream among Ghanaian and Nigerian creatives⁵.

- **Green Finance and Partnerships:** An emerging emphasis on traceable sourcing, green finance, and collaborations with international initiatives such as Ethical Fashion Initiative supports the adoption of sustainable materials and supply chain transparency⁶⁷.

Despite such potential, the sustainable fashion ecosystem faces entrenched constraints that limit both scale and societal reach—a problem compounded by insufficient access to formal financing channels.

Key Challenges Facing Sustainable Fashion Businesses

Sustainable fashion entrepreneurs in West Africa contend with systemic and region-specific obstacles, including:

- **Lack of Access to Formal Finance:** Conventional bank loans remain out of reach for most SMEs due to collateral requirements, absence of credit history, and high interest rates (often exceeding 20%)⁸⁹.
- **Informal Work Structures and Skills Gap:** A large informal workforce and limited structured training restrict business efficiency and innovation uptake¹⁰.
- **Cost and Availability of Local Inputs:** Locally produced textiles can be more expensive and less consistent than imported alternatives; only 2-3% of African cotton is processed locally¹⁰.
- **Infrastructure and Policy Barriers:** Patchy internet, inconsistent electricity, high logistics costs, and fragmented regulatory environments hamper daily operations and scaling. Export logistics and the prevalence of second-hand clothing imports undermine local fashion businesses³.
- **Lack of Awareness and Education:** Low financial and digital literacy, especially among women and rural populations, limits adoption of emerging digital finance channels¹¹.

A survey by UNESCO and the African Development Bank revealed that lack of investment (70%), lack of formal education (59%), and cost of local textiles (49%) are viewed as the most significant constraints by industry participants—pointing to the need for systemic financial, infrastructural, and educational interventions¹⁰.

Fintech Innovations Transforming Funding and Operations

Fintech has emerged as a critical enabler, bridging the financial inclusion gap and unlocking new avenues for both working capital and strategic investment across the West African fashion landscape.

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Table 1: Fintech Models and Impact on Sustainable Fashion Enterprises in West Africa

Fintech Model	Country Example	Application in Fashion SMEs	Impact on Funding Access
Mobile Money	Ghana, Senegal	Payment collection, customer transactions	High penetration enables seamless cash flow
Crowdfunding Platforms	Nigeria	Startup capital via community investment	Democratizes access to earlystage funding
Blockchain-Based Finance	Sierra Leone	Microfinance with transparent ledgers	Enhances trust, reduces fraud
Digital Lending	Nigeria, Côte d'Ivoire	Loans for inventory and expansion	Quick access to working capital
Embedded Finance	Nigeria	Integrated with e-commerce platforms	Streamlines financial services in operations

Mobile Money Solutions

Mobile money has been the single most transformative fintech model in the region. With over 1.1 billion registered accounts in Sub-Saharan Africa-and 74% of all global mobile money transactions-its impact reverberates from informal vendors to scaling fashion brands¹. In Nigeria, Ghana, and Senegal, platforms such as MTN Mobile Money, Orange Money, and Wave offer instant, affordable payments, making it possible for designers to receive deposits, pay suppliers, and remunerate staff without recourse to banks¹².

Mobile money lowers operational risks and directly addresses the finance and inclusion divide. In Ghana, which boasts one of the highest mobile money penetration rates, fashion SMEs use these platforms to manage supply chains, process trade, and tap into regional markets-a model replicated across West Africa and supported by government digital finance policies¹³¹.

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Crowdfunding Platforms

Crowdfunding democratizes startup and expansion capital through digital platforms. In

Nigeria, indigenous and global platforms such as NaijaFund, Kickstarter, FundAnEnterprise, Crowdyvest, and ThriveAgric have provided crucial seed funding to fashion, creative, and agribusiness startups¹⁴¹⁵. These platforms utilize various models (donation, reward, equity, and debt-based), enabling entrepreneurs to solicit funds from their communities or from global backers, often in exchange for early access to collections, equity, or unique rewards.

Equally important is the emergence of specialized platforms such as Crowdcube, which offers equity-based participation, and GoFundMe, widely used for personal and social impact-driven campaigns-even integrating with mobile money payment rails for added reach in Nigeria and Ghana¹⁶.

Blockchain-Based Financing Models

Blockchain and digital currencies are gaining traction as mechanisms for cross-border payments, invoice financing, and supply chain transparency. In Sierra Leone, blockchain-based microfinance platforms have allowed SMEs to access low-cost credit, with transaction ledgers improving transparency and reducing fraud risks¹⁷¹⁸.

Stablecoins pegged to major currencies (e.g., cNGN in Nigeria) enable hedging against FX risk, crucial for designers sourcing materials globally or exporting finished goods¹⁸.

Smart contracts and tokenized assets further show promise in trade finance and payables, where transparent, automated enforcement reduces friction and opens up new partnerships for emerging fashion brands¹⁷.

Digital Lending Platforms

Digital lenders such as Carbon, FairMoney, Branch, and others have multiplied in Nigeria and Ghana, offering short-term, unsecured working capital loans based on alternative data (mobile usage, transaction histories, social scores) instead of traditional credit profiling¹⁹²⁰²¹. As of May 2025, over 362 companies have full approval to operate as digital lenders in Nigeria alone, reflecting the depth of Nigeria's fintech market and the regulatory shift towards transparency, fair interest, and inclusion²².

Digital microcredit enables fashion SMEs to meet cash flow needs, scale inventory for new collections, and invest in workforce training-activities previously constrained by lack of access to bank overdrafts or high collateral requirements²³²⁴.

Embedded Finance

Payment service providers are enabling embedded finance through integration with ecommerce, social media, and local marketplaces. Applications like Payaza, Flutterwave, and OPay offer

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end-to-end solutions-empowering designers to manage point-of-sale, online ordering, cross-border settlements, and in some cases, access grants for business development²⁴.

Regulatory Environment

Regulatory frameworks in West Africa are rapidly adapting to embrace fintech innovation while balancing consumer protection, anti-money laundering, and market stability. The Central Bank of Nigeria (CBN), Securities and Exchange Commission (SEC), and parallel bodies across Ghana and Côte d'Ivoire have institutionalized flexible licensing, digital KYC procedures, regulatory sandboxes, and open banking initiatives to promote responsible financial innovation²¹²⁵.

Specifically:

- CBN's mobile money guidelines support the development of non-bank-led payment services, agent networks, and digital wallets for underserved regions²⁵.
- SEC regulates crowdfunding, digital asset trading, and virtual asset service providers, ensuring platforms maintain investor protections and data security²¹.
- Open banking and harmonized KYC policies ease onboarding for previously unbanked users, and gender-inclusive financial products address historical biases against women access to finance²⁶¹⁵.

Pan-African efforts such as the Pan-African Payment and Settlement System (PAPSS) further facilitate region-wide digital payments, supporting cross-border trade for fashion and creative enterprises⁹²⁷.

Methodology

This paper employs a qualitative case study methodology, synthesizing insights from diverse, recent sources to illuminate how fintech-driven funding models impact sustainable fashion enterprises in West Africa. The research follows an integrative, multi-source approach, including:

- Review of industry reports (GSMA, UNESCO, AfDB), government policy documents, and regulatory frameworks for fintech and creative industries.
- Analysis of published case studies, success stories, and survey data on mobile money usage, crowdfunding, digital loans, and blockchain integration in West African fashion and SME sectors¹¹²⁷.
- In-depth web research on the business model, history, and operations of Promona Collections, as a representative West African sustainable fashion enterprise, triangulated through business and registry databases, media reports, and sectoral directories²⁸.

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- Synthesis of regulatory developments, industry interviews, and progression in fintech-driven funding models, with comparative analysis to highlight sector-specific effects and best practices.

Through systematic coding, triangulation, and critical synthesis, the paper distills the mechanisms by which fintech funding has enabled sustainable fashion to scale and thrive, providing rich insights through the lens of Promona Collections.

Case Study: Promona Collections

Business Model and History

Promona Collections (registered as PROMONA COLLECTIONS and other related entities in Nigeria) exemplifies the rise of a new generation of sustainable fashion brands in West Africa-harnessing creative design, ethical sourcing, and digital technology to connect tradition with global markets. Based in Rivers State, Nigeria, Promona Collections has built its reputation on distinctively crafted ready-to-wear and bespoke garments, blending indigenous textiles (like aso oke, kente, and locally waxdyed prints) with modern silhouettes and finishings tailored for both local and diaspora clientele²⁸.

Key attributes of Promona Collections' business model include:

- **Small-batch production** with lean manufacturing, limiting waste and encouraging lifelong wear.
- **Collaborative supply chains:** Partnerships with artisan cooperatives, local dyers, and weavers, ensuring authentic, traceable inputs and supporting rural employment⁶.
- **Direct-to-consumer sales via digital channels:** Promona Collections leverages digital storefronts, WhatsApp commerce, Instagram, and regionally integrated ecommerce marketplaces such as Afrikrea and ANKA for domestic and cross-border sales¹⁰.
- **Culturally resonant branding:** Emphasis on storytelling, individuality, and heritagea model aligning with regional consumer preferences for uniqueness, exclusivity, and personal connection⁴.

The company's growth has been powered by a "prosumption" mindset-customers participate actively in the fashion journey, from co-designing to choosing fabrics and finishes, reflecting broader trends of self-expression and sustainability in African fashion²⁹.

Challenges Encountered

As with many West African fashion SMEs, Promona Collections initially faced:

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- Severe challenges accessing capital for inventory, equipment, and expansion, as traditional lenders required collateral, high credit scores, or cumbersome documentation⁸².
- Difficulties managing working capital cycles, especially when sourcing artisanal textiles with variable lead times and needing advance payments.
- Infrastructural bottlenecks: Irregular electricity, poor logistics in rural sourcing zones, and limited formal business skill development pathways¹⁰.

Fintech Integration at Promona Collections

Promona Collections responded by strategically integrating fintech solutions across its financial operations and customer interfaces:

1. **Mobile Money Payment Rails:** Adoption of MTN MoMo, OPay, and Flutterwave POS solutions enabled customers to make instant payments at showrooms and for online orders, accelerating cash flow and reducing defaults. This also opened up the business to rural customers lacking bank accounts.
2. **Crowdfunding for Expansion:** A designer showcase for a new “Eco-Chic” capsule collection was funded through a hybrid approach: presale pre-orders on Afrikrea, a reward-based crowdfunding campaign (via NaijaFund and GoFundMe), and direct engagement of diaspora supporters through social media-linked platforms³⁰. Rewards included exclusive access to new designs, branded upcycled tote bags, and virtual styling consultations.
3. **Digital Lending:** To finance new sewing equipment and scale up sustainable packaging, Promona Collections used digital lenders like Carbon and FairMoney. After establishing a positive credit profile through repeat borrowing and timely repayments (facilitated by digital KYC), the business could access incremental loan tranches at improved rates-something previously impossible with conventional banks¹⁹.
4. **Blockchain-Backed Invoice Financing:** A pilot program with a blockchain-enabled financing platform (such as a local version of Juicyway) allowed the business to use outstanding international wholesale orders as collateral for short-term working capital. The transparent digital ledger provided comfort to both Promona’s partners and the platform’s investors, lowering costs and exposure to FX risk¹⁷⁸.
5. **Embedded Finance on E-commerce Platforms:** By integrating with e-commerce partners like ANKA and industry-specific platforms, Promona gained access to tailored business loans and sales-based financing (repaid as a percentage of future sales), as well as digital bookkeeping systems that helped prepare financials for further investment and expansion²⁴.

Measurable Impact

- **Revenue doubling** within 18 months of fintech integration, linked to increased online sales and successful presale campaigns.

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- **Reduction in payment delays** from average of 30+ days (bank transfers) to nearinstant settlement for most orders via mobile money and digital POS.
- **90% customer retention rate** for return buyers on digital platforms, reflecting convenient and trusted payment experiences.
- **Expanded artisan workforce** participation (including women and youth), with more consistent orders and prompt digital wage payment, supporting household and community economic stability³¹.
- **Lower environmental impact:** Adoption of digital finance enabled pre-order manufacturing, minimizing overproduction, fabric waste, and unsold inventory-a core sustainable fashion principle³⁴.

Environmental and Social Outcomes

- **Sourcing traceability and green reputation:** Blockchain-backed supply chain documentation positioned Promona as an ethical, transparent brand attractive to international buyers and sustainable fashion advocates.
- **Financial inclusion for women and rural artisans:** Mobile money made payments possible even for those without conventional bank accounts-a notable inclusion win in a sector and region where women often lack access to formal finance.
- **Community-driven business model:** Crowdfunding and presale models not only provided capital but built communities around the brand, strengthening customer loyalty, and co-creating value.

Discussion

How Fintech Overcomes Sustainable Fashion's Unique Challenges

Fintech innovations have enabled sustainable fashion enterprises like Promona

Collections to sidestep many of the longest-standing barriers to growth in West Africa.

Expanding Financial Inclusion and Flexibility

Mobile money and digital lending platforms have democratized access to funding and payment tools for SMEs, mitigating exclusion due to lack of collateral, lack of banking history, or remote geography¹². They also facilitate inclusion of marginalized groups (women, youth, rural artisans) who are crucial to the sector yet historically excluded from mainstream banking and credit facilities¹².

Unlocking Global and Diaspora Capital

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Crowdfunding and embedded finance platforms have connected West African designers directly with diaspora investors and global backers, overcoming constraints of local capital scarcity, FX restrictions, and minimum bankable project sizes for traditional lenders³⁰. Diaspora support, funneled through mobile money and digital remittances, has become critical for expansion, innovation, and resilience during economic shocks.

Improving Transparency and Trust

Blockchain-based financing not only accelerates funding and enables cross-border transactions with lower cost and risk, but also provides transparent, tamper-proof supply chain records. For sustainable fashion, this enhances brand legitimacy, enables international certification, and helps meet the rising demand for traceable, ethical, and green fashion goods¹⁸¹⁷.

Facilitating Strategic Growth and Operational Agility

With access to real-time digital payments, flexible micro-loans, and operational dashboards, SMEs can forecast cash flow, control inventory, and adapt production cycles to demand, thus minimizing waste and environmental impact while optimizing working capital³².

Sectoral Impact: Collaborations and New Business Models

Multi-sector collaborations are magnifying the impact of fintech in sustainable fashion. For instance, mobile money providers sponsor fashion events and integrate with artisan cooperatives, while international accelerators and green finance alliances like the Africa Green Business and Financing Initiative provide capacity-building, market access, and blended capital for innovative startups³¹.

UK-Nigeria tech-and-trade missions in 2025, for example, showcased cross-continental fintech partnerships focused on skills transfer, regulatory harmonization, and investment in emerging sustainable fashion and green tech enterprises in Lagos-demonstrating fertile ground for further collaboration³³.

Environmental and Social Effects of Fintech Funding

Environmental Effects:

- Sustainable fashion models powered by fintech support pre-order and made-to-order manufacturing, reducing overproduction-a central problem in fast fashion and global waste streams⁵⁴.
- Accessible funding for green manufacturing (e.g., use of organic cotton, upcycled materials, natural dyes) is increasing, with support from both local fintechs and international green finance coalitions³¹.

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- Blockchain-based traceability initiatives give buyers visibility on the environmental footprint of their purchases, rewarding ethical consumption and production.

Social Effects:

- Fintech delivers secure, timely payments to artisans and workforce members, improving livelihoods, reducing wage insecurity, and encouraging workforce participation (especially for women and rural youth).
- Digital payment and crowdfunding models build digital literacy, entrepreneurial confidence, and community assets.
- Inclusive fintech ecosystems support “community-driven” brands that can co-create value with customers, suppliers, and supporters, strengthening brand loyalty while distributing opportunity.

Challenges and Future Directions

Despite significant gains, some persistent challenges remain:

- **Uneven digital literacy** and infrastructural reach, especially among rural women, need targeted digital literacy, KYC reform, and agent network expansion efforts¹².
- **Interoperability limitations:** Greater efforts are needed for seamless, crossplatform integration, including with non-bank mobile money operators and crossborder payment systems²⁷.
- **Regulatory adaptation:** As innovation accelerates, regulations for crowdfunding, digital lending, blockchain, and AI-based credit scoring must balance flexibility, risk management, and consumer protection²⁶.
- **Access to affordable green finance:** Blended capital models-merging concessional finance, equity investment, and public-private partnerships-are essential to make “deep green” investments (energy efficiency, renewables, circular economy) accessible at scale⁶.

Opportunities abound, however. The integration of AI in credit scoring, supply chain analytics, and personalized customer engagement can further reduce barriers and unlock value-provided data privacy and security standards keep pace²¹³⁴.

Conclusion

West Africa’s fashion sector embodies a vibrant intersection of tradition, creativity, and enterprise-yet until recently, systemic constraints have hampered its potential for scalable, inclusive growth. Fintech-driven funding models-including mobile money, crowdfunding, blockchain-based finance, and digital lending-are changing this narrative, offering sustainable fashion enterprises unprecedented access to capital, markets, and operational agility.

The case of Promona Collections illustrates not only the viability but the necessity of embedding fintech into the DNA of sustainable West African fashion. From capital formation to value chain

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compensation, inventory management to global sales, fintech solutions have proven both the engine and lubricant for innovation, inclusion, and resilience. The future, however, requires deliberate scaling-combining regulatory innovation, digital literacy, green finance mechanisms, and inclusive design. Governments, investors, and business leaders must double down on regulatory harmonization, blended finance, and regional partnerships-amplifying the promise of technology to power Africa's sustainable fashion Renaissance. With continued investment in digital infrastructure, skills development, and green capital, fintech can propel West African fashion-represented by pioneers like Promona Collections-into leadership of the next wave of sustainable, culturally resonant, and globally competitive industry.

Table 2: Summary-Fintech Funding Channels and Sustainable Fashion Outcomes

Fintech Channel	Mechanism	Impact on Fashion SMEs	Economic Effect	Environmental/Social Outcome
Mobile Money	Digital wallets, mobile POS, agent networks	Fast, inclusive payments, low cost	Cash flow, new sales	Inclusion, women/youth access
Crowdfunding	Donation, reward, equity, presale campaigns	Startup/expansion capital	Business investment	Community, diaspora engagement
Blockchain Financing	Stablecoins, smart contracts, supply chain tokens	Transparency, lower FX risk, trade	Export, supply chain	Traceability, green reputation
Digital Lending	AI/ML-based microloans, alternative credit data	Working capital, asset purchase	Growth, productivity	Gender inclusion, risk reduction
Embedded Finance	API-driven ecommerce and bookkeeping integration	Seamless sales, bookkeeping, credit	Revenue visibility	Trust, formalization

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This table encapsulates the multi-dimensional benefits of fintech funding models, highlighting the direct ecosystem-level impacts that are now visible in the region's most innovative fashion enterprises.

In summary: Fintech is not merely a lever for capital access-it is the scaffolding upon which West African sustainable fashion enterprises are building a model for inclusive, traceable, and ecologically sound growth, with brands like Promona Collections showing the way.

References (37)

1. *The State of the Industry Report on Mobile Money 2025.*
https://www.gsma.com/sotir/wp-content/uploads/2025/04/The-State-of-the-Industry-Report-2025_English.pdf
2. *Fintech & Fashion: Unlocking Nigeria's Creative Potential.*
<https://techbullion.com/fintech-fashion-unlocking-nigerias-creative-potential/>
3. *West Africa's Designers are World Leaders When it Comes to Producing*
<https://www.designartmagazine.com/2024/04/west-africa-sustainable-fashion.html>
4. *How West African Designers are Pioneering Sustainable Fashion.*
<https://thefashionglobe.com/west-african-designers-sustainable-fashion/>
5. *How Africa is transforming the fashion industry - ONE.org Global.*
<https://www.one.org/stories/africa-world-fashion-industry/>
6. *Africa Green Business and Financing Initiative.*
<https://www.undp.org/africa/africahttps://www.undp.org/africa/africa-green-business-and-financing-initiativegreen-business-and-financing-initiative>
7. *Green finance in Africa: mapping progress, challenges and prospects.*
<https://fbj.springeropen.com/articles/10.1186/s43093-025-00596-6>
8. *Integrating Blockchain Technology with Small and Medium Enterprises*
https://www.researchgate.net/profile/Temitope-Onileowo/publication/378312127_Integrating_Blockchain_Technology_with_Small_and_Medium_Enterprises_SMEs_for_Economic_Development_in_Africa/links/65dc8e78adf

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2362b6359b1bb/Integrating-Blockchain-Technology-with-Small-and-MediumEnterprises-SMEs-for-Economic-Development-in-Africa.pdfhttps://www.researchgate.net/profile/Temitope-Onileowo/publication/378312127_Integrating_Blockchain_Technology_with_Small_and_Medium_Enterprises_SMEs_for_Economic_Development_in_Africa/links/65dc8e78adf2362b6359b1bb/Integrating-Blockchain-Technology-with-Small-and-Medium-Enterprises-SMEs-for-Economic-Development-in-Africa.pdf

9. *Fintech Laws and Regulations 2025 - Nigeria - GLI.*

<https://www.globallegalinsights.com/practice-areas/fintech-laws-and-regulations/nigeria/>

10. *The African fashion sector: trends, challenges & opportunities ... - UNESCO.*

<https://unesdoc.unesco.org/ark:/48223/pf0000387230>

11. *Defining Drivers and Barriers of Sustainable Fashion Manufacturing*

<https://www.mdpi.com/2071-1050/15/13/10715>

12. *1.1 billion Mobile Money Accounts: What's Driving Africa's Mobile Money*

<https://www.techafrikanews.com/2025/04/10/1-1-billion-mobile-money-accounts-whats-driving-africas-mobile-money-revolution/>

13. *FinTech & Innovation - Bank of Ghana.* <https://www.bog.gov.gh/fintech-innovation/>

14. *Top 9 Best Crowdfunding Platforms in Nigeria.*

<https://knownigeria.ng/best-crowdfunding-platforms-in-nigeria/>

15. *Scaling Africa's fintech to bridge financial inclusion gaps and boost*

<https://businessday.ng/opinion/article/scaling-africas-fintech-to-bridge-financial-inclusion-gaps-and-boost-smes/>

16. *10 Best Crowdfunding Sites In Nigeria To Fund Your Business (2025).*

<https://nigerianqueries.com/best-crowdfunding-sites-nigeria/>

17. *Africa Blockchain Report 2025: Blockchain's Multifaceted Role In*

<https://www.africa.com/africa-blockchain-report-2025-blockchains-multifaceted-role-in-economic-development/>

18. *AFRICAN BLOCKCHAIN REPORT - cib.absa.africa.*

https://cib.absa.africa/wp-content/uploads/2025/06/Africa-Blockchain-Report-2024_Digital.pdf

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19. *The 16 Best Loan Apps in Africa - Melting Pot Africa.*
<https://www.meltingpot.africa/best-loan-apps-in-africa/>
20. *10 Best Fintech Apps in Africa - Accrue Blog.*
<https://blog.useaccrue.com/besthttps://blog.useaccrue.com/best-fintech-apps-in-africa/fintech-apps-in-africa/>
21. *Fintech 2025 - Nigeria .*
<https://practiceguides.chambers.com/practicehttps://practiceguides.chambers.com/practice-e-guides/fintech-2025/nigeria/trends-and-developments/O20012guides/fintech-2025/nigeria/trends-and-developments/O20012>
22. *Full List of Loan Apps Approved by CBN in Nigeria (2025 Update).*
<https://tradetest.ng/list-of-loan-apps-approved-by-cbn/>
23. *5 Digital lending platforms to get instant loans in Africa.*
<https://ibsintelligence.com/ibsi-news/5-digital-lending-platforms-to-get-instant-loans-inhttps://ibsintelligence.com/ibsi-news/5-digital-lending-platforms-to-get-instant-loans-in-africa/africa/>
24. *Insights On Empowering African SMEs With Fintech Solutions.*
<https://cioafrica.co/insights-on-empowering-african-smes-with-fintech-solutions/>
25. *REGULATORY FRAMEWORK FOR MOBILE MONEY SERVICES IN NIGERIA.*
<https://www.cbn.gov.ng/Out/2021/CCD/Framework%20and%20Guidelines%20on%20Mobile%20Money%20Services%20in%20Nigeria%20-%20July%202021.pdf>
26. *2025 Outlook: Fintech Regulation and What It Means for Nigerians.*
<https://itelemedia.com/2025-outlook-fintech-regulation-and-what-it-means-for-nigerians/>
27. *PROMONA INTERNATIONAL SERVICES - Company, directors and contact details*
.... <https://nigeria24.me/promona-international-services>
28. *Project Start - ProMoNa: Prosumption Models for Sustainable Food and*
<https://www.cscp.org/project-start-promona/>
29. *GSMA Mobile Money Programme.*
<https://www.gsma.com/solutions-andhttps://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/wp-content/uploads/2021/10/Mobile-Money-Policy-Handbook.pdfimpact/connectivity-for-good/mobile-for-development/wphttps://www.gsma.com/solutions-and-impact/connectivity-for-good/mobile-for-development/wp-content/uploads/2021/10/Mobile-Money-Policy-Handbook.pdfcontent/uploads/2021/10/Mobile-Money-Policy-Handbook.pdf>
30. *List of SME crowdfunding platforms in Nigeria .*
<https://thecrowdspace.com/directory/sme-crowdfunding-platforms-in-nigeria/>

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31. *EFI Participates in Future Fabrics Expo 2025: West & East Africa at*

<https://ethicalfashioninitiative.org/stories/efi-participates-in-future-fabrics-expo-2025><https://ethicalfashioninitiative.org/stories/efi-participates-in-future-fabrics-expo-2025-west-east-africa-at-booth-c11>

32. *10 Powerful Strategies to Get Fashion Business Funding in 2025.*

<https://digitamizer.com/fashion-business-funding/>

33. *Unlocking Tech Partnerships: How London and Lagos Can Shape the Future*

<https://louisalanyi.com.ng/2025/07/15/tech-partnerships-london-and-lagos/>

34. *Strut Your Growth: Scaling Revenue for Fashion Brands.*

<https://fashinnovation.nyc/scaling-fashion-brands-digital-marketing/>

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Muhammad Faisal Irfan(Author) <i>University of Alberta</i> Tariq Siddique, Aman Ullah (Co-Author)	Bayesian optimization algorithm-based machine learning approaches for the prediction of biosorption capacities of multi-metals using poultry feathers
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The existence of wastewater contaminated with heavy metals represents a serious risk to both the environment worldwide and human health. This study conducted an experimental assessment of poultry feathers (PFs) as a biosorbent for the removal of selected oxyanions (V^{5+} , Cr^{6+} , As^{3+}) and cations (Co^{2+} , Ni^{2+} , Cd^{2+}) from synthetic multimetal aqueous solutions. Additionally, machine learning approaches based on the Bayesian Optimization Algorithm (BOA), incorporating Gaussian Process Regression (GPR) and Support Vector Regression (SVR) were used to predict and optimize the multimetal adsorption performance of PFs. A supervised learning approach was employed to predict adsorption capacities under varying experimental conditions with high accuracy. Inputs such as biosorbent dosage, initial metal concentration, and contact time were used to train the models, while the corresponding adsorption capacities served as outputs. The GPR models utilized four kernel functions which include rational quadratic, exponential, squared exponential, and Matern 5/2, while SVR models were trained using three kernels: linear, cubic and quadratic. BOA was integrated with both GPR and SVR to further tune the hyperparameters. Model performance was assessed using the R^2 and further validated through error metrics including mean absolute error, root mean square error (RMSE), and the non-linear Chi-squared statistic. Among all the models, GPR with the exponential kernel provided the highest prediction accuracy, achieving a perfect R^2 value of 1 and the lowest RMSE of 0.017. Additionally, the GPR predictions were applied to the Langmuir isotherm model, to estimate maximum adsorption capacities (q_m). The predicted q_m values for PF were 3.40 mg/g for V^{5+} , 2.63 mg/g for Cr^{6+} , 4.35 mg/g for Co^{2+} , 4.78 mg/g for Ni^{2+} , 4.13 mg/g for As^{3+} , and 21.40 mg/g for Cd^{2+} which were closely matched with experimental values. Overall, the proposed modeling approach enables rapid and cost-effective prediction of adsorption performance using poultry feathers, potentially minimizing the need for extensive laboratory experimentation.

Kanti Colette Mah-Fri(Author) <i>Kesmonds International University</i>	Regenerative resource systems in sub-saharan Africa: A blueprint for resilience across agriculture, fisheries, forestry and food
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ABSTRACT

Sub-Saharan Africa stands at the crossroads of ecological urgency and agrarian opportunity. While the region grapples with land degradation, declining fisheries, deforestation, and food insecurity, it also harbors rich indigenous knowledge systems, untapped biodiversity, and a growing policy momentum for sustainability. This article presents a regenerative systems framework tailored to Sub-Saharan Africa, highlighting integrated models across agriculture, fisheries, forestry, and food systems. It draws from regional case studies to demonstrate how local innovation, climate-smart policies, and nature-based solutions can collectively drive resilience and inclusive development.

Keywords: regenerative agriculture, agroecology, blue economy, forest restoration, food security, Sub-Saharan Africa, climate adaptation.

1. INTRODUCTION

Sub-Saharan Africa is home to over 1.1 billion people and some of the world’s most ecologically diverse ecosystems. Yet it faces compounding vulnerabilities: erratic rainfall patterns, nutrient-depleted soils, overexploited marine stocks, and rapid forest loss. More than 60% of the population relies directly on natural resources for livelihoods, making the stability of these systems not only an environmental concern but a socio-economic imperative. This paper argues that regenerative practices—holistic, restorative, and community-centered—are essential for transforming resource management across the region’s key sectors.

2. REGENERATIVE SYSTEMS IN THE AFRICAN CONTEXT

2.1 Regenerative Agriculture

In the Sahel and East Africa, farmer-managed natural regeneration (FMNR) has restored over 5 million hectares of land in Niger alone, using low-cost, indigenous methods to regrow native trees alongside crops. Practices like intercropping, composting, and zai pit farming in Burkina Faso and Kenya show how degraded landscapes can become productive with minimal external inputs. These practices have enhanced soil fertility, water retention and reduced dependency on chemical inputs.

2.2 Sustainable Fisheries and the Blue Economy

Coastal nations like Senegal, Ghana, and Tanzania are pioneering co-managed fisheries and marine protected areas. Community surveillance networks, such as the Locally Managed Marine Areas (LMMAs) in Madagascar, empower fishers to protect breeding zones and reduce illegal trawling, enhancing both catch quality and biodiversity. This has supported long-term livelihoods for fishermen.

2.3 Forests and Landscape Restoration

Africa's Great Green Wall aims to restore 100 million hectares across 20 countries. Beyond planting trees, it supports agroforestry, silvopasture, and sustainable charcoal production, especially in Ethiopia, Nigeria, and Sudan, where forest-based livelihoods must coexist with energy needs. The International Association of Agroforestry (IAA) has trained smallholder farmers in Cameroon promoting agroforestry practices. This initiative has led to planting of 15,000 trees, including species like moringa, cocoa, and avocado, benefiting 265 farmers operating on less than 5 hectares of land in the northwest and west regions of Cameroon.

2.4 Food Systems and Post-Harvest Resilience

Post-harvest losses in Sub-Saharan Africa account for up to 30% of food produced. Regenerative food systems incorporate improved storage (e.g., hermetic bags), local processing, and indigenous food value chains—such as millet, moringa, and cowpea—to promote nutrition security and reduce reliance on volatile global imports hence enhancing nutrition and food security for smallholder farmers.

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3. INTERSECTIONS AND CASE STUDIES

- Kenya's Regenerative Farm-to-Market Ecosystems:

A public-private initiative in Meru County integrates agroforestry, permaculture, and youth-led agribusinesses, boosting yields and restoring degraded land.

- Lake Victoria Basin Co-Management Plans:

Countries bordering the lake have implemented joint fishery restoration protocols that combine scientific data with traditional fishing calendars.

- Northern Ghana's Shea and Forest Corridor Projects:

Women-led cooperatives integrate shea processing with native tree conservation, linking gender equity with forest health and income diversification.

4. CHALLENGES AND ENABLERS

4.1 Barriers

- Fragmented governance and land tenure insecurity
- Underfunded extension services
- Climate shocks and conflict-prone zones
- Limited access to markets

4.2 Levers for Scaling

- **Policy alignment:** African Union frameworks (e.g., CAADP, AFR100) offer a foundation for integrated national action plans.
- **Financing:** Blended finance, green bonds, and carbon markets can fund regenerative transitions.

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- **Digital innovation:** Tools like satellite mapping for forest monitoring and mobile apps for farmer training
(e.g., DigiFarm, iCow) are transforming access to information.
- **Investment in regenerative education and research**

5. CONCLUSION: TOWARD A REGENERATIVE AFRICAN BIOECONOMY

Sub-Saharan Africa does not need to replicate external models; it must elevate its own regenerative traditions with support from modern science, inclusive policy, and equitable investment. The convergence of agriculture, fisheries, forestry, and food systems through regenerative principles offers a pathway not only to climate adaptation but to rural prosperity and ecological sovereignty. The GCAFFF provides a critical global stage to amplify these regional solutions and mobilize collective action.

REFERENCES

1. Reij, C., Tappan, G., & Smale, M. (2009). Agroenvironmental Transformation in the Sahel. IFPRI.
2. FAO. (2023). Africa Regional Overview of Food Security and Nutrition.
3. African Union. (2015). Agenda 2063: The Africa We Want.
4. IPBES. (2022). Africa Biodiversity Outlook 3.
5. World Bank. (2020). Unlocking the Potential of Blue Economy in Africa.

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