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The Transformative Role of Artificial Intelligence in Enhancing Transparency and Efficiency in Music Royalty Distribution in Kenya

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Abstract
This study aims to explore the capacity of Artificial Intelligence (AI) to restructure the music royalty framework in Kenya. The research specifically investigates whether the deployment of AI can alleviate existing systemic issues within Kenya's music royalty distribution. Aligned with the Kenya Vision 2030 strategy, the music industry is recognised as a pivotal economic sector; however, its potential is currently constrained by the deficiencies of its collective management organisations (CMOs). These deficiencies primarily involve the ineffective utilisation of technology for royalty collection, a lack of transparency in reporting artist royalty payments, and governance challenges that have eroded artists' trust in CMOs. By adopting a documentary analysis approach within a theoretical framework to synthesise findings from international intellectual property case studies, KECOBO audit reports, and relevant legal frameworks. This comparison aims to compare global best practices for AI implementation against the structural limitations prevalent in Kenya's music industry. Furthermore, the study applies Giddens' Structuration Theory to analyse how the current manual systems perpetuate inefficiency through recursive processes within the music industry. The study also proposes a model where AI catalyzes "re-structuring," facilitating new norms of algorithmic accountability and providing new resources of verifiable data. The findings indicate that while various AI technologies could be applied to track and distribute royalties in Kenya, their successful implementation is hindered by challenges related to data infrastructure and digital literacy. This research concludes that a phased approach to AI adoption should be pursued, positioning AI not only as a tool for increased efficiency in music royalty distribution but also as a mechanism to restore artist agency and institutional trust.

Introduction

The Kenyan music industry represents a dynamic and complex ecosystem signified by cultural production and untapped economic potential. While the democratisation of broadcast media and the rise of digital technologies have catalysed the proliferation of new genres and a broader trend of "platformisation," the music industry is continually reconfigured around new digital intermediaries and platforms (Eisenberg, 2025). This marketplace is characterised by a rich diversity of genres, from the enduring rhythms of traditional Benga to the coastal fusion of Taarab, and extending to the contemporary urban sounds of Genge and the globally recognised phenomenon of Arbantone. The

dynamism of the music industry is a clear testament to its role as a vehicle for sharing information, preserving history, and fostering interethnic cohesion. These functions have been central to Kenyan society for generations.

The economic significance of this sector has been formally recognised at the highest levels of national planning. The Kenya Vision 2030 blueprint identifies music and performing arts as a priority sector capable of contributing to the nation's transformation into a globally competitive and prosperous country (Croella, 2007). Music adds tangible value to the Gross Domestic Product (GDP) and serves as a crucial source of employment, particularly for the nation's youth (Croella, 2007). However, a persistent paradox exists in the music industry: despite its cultural vibrancy and recognised economic potential, it is hobbled by systemic challenges, including under-investment, high piracy rates, and, most critically, the ineffective management of intellectual property rights, which leaves a majority of artists struggling to earn a sustainable living (Croella, 2007).

The forces of digital globalisation further complicate this precarious situation. The rise of digital streaming platforms such as Boomplay and Mdundo has fundamentally altered the music industry's value chain (Eisenberg, 2025). While these platforms have given immense global visibility to local genres, they have also introduced a new set of tensions. This process of "platformisation" introduces new roles and intermediaries, reconfiguring the music industry's value chain and replacing the influence of traditional labels and broadcasters with new digital gatekeepers (Eisenberg, 2025). This has created a constant negotiation for artists, who must always navigate an ever-evolving digital ecosystem. Artists, who rely heavily on these digital platforms, are often at the mercy of these very same powerful intermediaries as they dictate terms and control access to audiences and revenues, a tension that reshapes the very essence of Kenya's musical ecosystem (Kirui, 2024a).

At the heart of the music industry's economic framework are Collective Management Organisations (CMOs). In Kenya, the primary CMOs, the Music Copyright Society of Kenya (MCSK), the Kenya Association of Music Producers (KAMP), and the Performers Rights Society of Kenya (PRISK) are mandated with the critical function of administering copyrights on behalf of creators (ARIPO, 2023). Their role is to act as intermediaries, negotiating licensing fees with music users (such as broadcasters and businesses), collecting the resulting royalties, and distributing these revenues to the artists, composers, and producers who own the rights (ARIPO, 2023). This collective management model is, in theory, the most efficient mechanism for managing rights in a world where individual tracking of every music use is impractical. However, these organisations have become the primary bottleneck impeding the industry's growth and the financial well-being of its artists. The history of collective management in Kenya is a narrative of persistent crisis, characterised by well-documented allegations of mismanagement, systemic corruption, and a profound, chronic failure to distribute royalties fairly and promptly (Kirui, 2024a). This systemic dysfunction has created an environment of deep-seated mistrust between artists and the very institutions established to protect their livelihoods (Kirui, 2024a). The regulatory body, the Kenya Copyright Board (KECOBO), is tasked with licensing and supervising these CMOs; however, this oversight process has itself been mired in controversy and protracted legal battles over licensing decisions (Centre for Intellectual Property and Information Technology Law, 2025a; Eisenberg, 2025). This constant cycle of conflict between the regulator and the CMOs has created a governance vacuum, a state of perpetual instability where long-term planning is paralysed, and accountability is diffused across multiple warring entities, leaving artists as the primary casualties of institutional wrangling (Centre for Intellectual Property and Information Technology Law, 2025a).

The latest and most disruptive technological wave is the integration of AI into the creative and administrative fabric of the music industry. AI is no longer a futuristic concept but a present-day

reality, with applications spanning the entire value chain. AI algorithms are now used for music composition, automated audio mastering, and playlist curation (Božić, 2024; Hodgson, 2021). More critically for this study, AI is revolutionising the field of rights management. Advanced AI systems can extend beyond legacy Digital Rights Management (DRM), offering tools for automated content recognition, predictive royalty forecasting based on complex data patterns, and the creation of transparent, real-time reporting dashboards (Herremans, 2025; Jacques & Flynn, 2024). The global music industry has already developed and implemented the technical solutions to the very problems of tracking and data management that Kenya continues to face. The persistence of outdated manual systems in Kenya is therefore not a result of a technological lag, but rather a consequence of political and structural choices that have resisted modernisation. Despite Kenya Vision 2030 identifying the creative economy as a pivotal sector for national development, the primary mechanism for remunerating bodies, especially CMOs, remains dysfunctional. CMOs are characterised by a structure of opacity where traditional manual processes persist within the digitising industry. While recent KECOBO audits highlight systemic failures, including high operating costs and non-compliance with the 70/30 distribution rule, the available literature focuses on the symptoms of mismanagement rather than the structural causes. The literature does not identify potential technological remedies, such as Automated Content Recognition (ACR). Furthermore, there is a scarcity of literature on how specific AI interventions can address these inefficiencies, and insufficient theoretical models explaining why manual systems persist despite available alternatives. This study, therefore, aims to address this gap by investigating how AI can be deployed to restructure the governance of music royalties in Kenya. This will eventually lead to a transition of the sector from institutional mistrust to algorithmic accountability.

a. Technology adoption in advanced markets

Understanding the role of technology in addressing the problems faced in Kenya begins with examining how rights holders in more technologically developed countries have responded to similar challenges. One example of how companies in advanced markets have reacted to rights-management challenges is the partnership between the music company BMG and Google Cloud to develop StreamSight. This AI-driven application utilises machine learning models to improve the accuracy of digital royalty payments (Ganzemüller & Heigl, 2025). In terms of its design, StreamSight is representative of the most current technology used in managing royalties. As described by Ganzemüller and Heigl (2025), StreamSight comprises machine learning models that perform two fundamental tasks: revenue forecasting and anomaly detection. To perform revenue forecasting, StreamSight incorporates several statistical models: ARIMA_PLUS to analyse long-term trends in music sales and BOOSTED_TREE to model short-term fluctuations in music sales (Ganzemüller & Heigl, 2025). For anomaly detection, StreamSight utilises K-means clustering to automatically identify discrepancies that would require substantial manual effort to detect (e.g., missing sales periods from a digital service provider or revenue paid from a region in which rights are not held) (Ganzemüller & Heigl, 2025). Through automation, StreamSight enables BMG to protect revenue, ensure the accuracy of its accounts payable and receivable, and create a more transparent environment for its artists.

Automated Content Recognition (ACR) is another form of technology utilised by Rights Organisations (CMOs) in Europe and North America. Audio fingerprinting is one type of ACR provided by companies such as the Barcelona-based BMAT. BMAT provides automated content recognition services to many CMOs, including the UK's PRS for Music (BMAT, n.d.-a). BMAT's Vericast system continuously monitors thousands of TV and radio channels worldwide, utilising AI-powered audio fingerprinting to determine whether and where the music of BMAT's clients is played (BMAT, n.d.-a). Instead of relying on unverifiable manual logs and sampling to report when and where their clients'

music is being played, BMAT's Vericast system provides reliable, verifiable, 24/7 monitoring data (BMAT, n.d.-a). Additionally, the system provides automated reports that support visual and audio evidence to validate royalty claims, significantly improving the speed and accuracy of royalty collections from broadcast media (BMAT, n.d.-b). These examples illustrate a clear global trend and a major paradigmatic shift in rights management philosophy: from sample-based auditing and reactive approaches to data-driven, continuous verification and proactivity, which has become the new normative standard of accountability for rights organisations globally.

b. Collective Management Organisations in Kenya

The collective management environment in Kenya has evolved amid a complex history of legislative and policy changes, institutional rivalry, and regulatory instability. Before 1998, the MCSK functioned as the sole music CMO since its founding in 1983. The enactment of the 2001 Copyright Act created the formal regulatory structure for copyright administration in Kenya by establishing the KECOBO and requiring the registration of all CMOs (Eisenberg, 2025). Although this multi-CMO system was intended to better represent diverse classes of rightsholders, according to Mulindwa et al. (2025), it ultimately created the conditions for the ongoing conflict and uncertainty. The overlapping responsibilities of MCSK and MUSGAA led to disputes over licence rates, with users feeling they were paying double taxation for a single use of music (Centre for Intellectual Property and Information Technology Law, 2025b). The instability of the governance structure and the inconsistent regulatory framework further exacerbated complexity, creating fertile ground for the systemic failures that currently plague the sector. An evaluation of the existing literature and publicly available documentation reveals a persistent pattern of failure across three core domains: governance and licensing, financial transparency, and operational performance (Marisa, 2025). **Table 1** summarises the documented problems.

Table 1: Challenges in Kenyan CMO governance and operations (2010-2025)- Author 2025

	Specific manifestation	**CMOs**	**Source citation**
Financial opacity	Discrepancy of Ksh 26 million in declared 2023 joint collections.	MCSK	(Kenya Copyright Board, 2024)
	High operating costs reducing the distributable revenue pool for artists.	All	(Kenya Copyright Board, 2024)
	Failure to comply with the mandated 70/30 distribution rule (e.g., MCSK distributing only 5%).	All	(Kenya Copyright Board, 2024)
	Diversion of royalties, suspected fraudulent transactions, ghost members.	All	(Daily Nation, 2020)
	Allegations of skewed royalty payments and unfair compensation.	All	(Kirui, 2024a; Marisa, 2025)
Governance & licensing	Protracted litigation over KECOBO's decisions on single vs. multiple CMO licences.	All, KECOBO	(CIPIT, 2025a; CIPIT, 2025c
	Lack of transparency and fairness in the administrative process of licensing.	KECOBO	(CIPIT, 2025a)
	Poor corporate governance structures and negligence in asset management.	All	(Daily Nation, 2020)
Operational inefficiency	Reliance on outdated manual practices for royalty collection and tracking.	All	(CIPIT, 2025a)
	Poor record-keeping and lack of critical policy documents	All	(Daily Nation, 2020)
	Documented mismanagement and systemic corruption.	All	(Kirui, 2024a; Marisa, 2025)

Source: *Authors 2025*

c. AI in rights management and royalties' distribution

AI is rapidly becoming integral to all aspects of the creative industries, either as tools for creation or a system for administration. For example, in the music space, AI applications include generative models capable of composing original music, and automated mastering services that apply machine learning to optimise the final sound of a track (Hodgson, 2021; Božić, 2024). The question of whether to attribute authorship to the AI that generated the music, or even whether the AI-generated music is original, is far removed from the immediate practical implications of how AI will help address the structural issues present in Kenya today. Several AI technologies have the most significant potential to address long-standing structural problems in Kenya by applying AI to the administrative back end of the industry. A foundational technology for modern rights management is ACR. ACR systems utilise AI to create a unique digital 'fingerprint' for every audio recording. That fingerprint can then be utilised to identify the particular piece of music if it is broadcast on radio or television or streamed online (BMAT, n.d.-b). This technology eliminates the need for inaccurate manual logs and the statistical sampling required for rights holders to obtain information on when and where their works were played. By utilising machine learning models to analyse large historical datasets of streaming metrics, sales data, and industry trends, AI platforms can produce highly accurate projections of future royalty earnings (Walfish, 2025). For instance, BMG's StreamSight utilises predictive analytics algorithms to analyse intricate patterns to predict the future income of an artist or a catalogue (Ganzemüller & Heigl, 2025). This provides rights holders and individual artists with enhanced capabilities to make more informed financial choices.

One of the most considerable obstacles facing CMOs is the immense complexity and volume of royalty reports generated by hundreds of digital service providers (DSPs). AI systems can automate this entire process by consuming reports, correlating usage data to ownership databases, and determining the proper royalty splits in real time (Walfish, 2025). Moreover, AI systems can perform anomaly detection at scale, automatically identifying anomalies such as missing sales data and payments to DSPs that do not align with rights ownership (Ganzemüller & Heigl, 2025). This produces a continuous, automated auditing system that significantly increases accountability across the ecosystem. Although blockchain technology remains an emerging application, there is significant potential for a decentralised, immutable ledger of music ownership and usage rights (Ciriello et al., 2023). By creating a single source of truth for metadata, blockchain technology may eliminate many disputes over conflicting or incorrect data, thereby increasing the overall transparency of the ecosystem (Ciriello et al., 2023). In total, the integration of these AI technologies can enable an end-to-end, fully automated and transparent value chain, from the initial playback to the eventual payment of royalties. Therefore, the potential for a closed-loop system that requires little to no human intervention and provides a high degree of audibility exists. However, this type of paradigm is entirely incompatible with the current opaque, middleman-heavy model in Kenya.

Theoretical Framework

To transition away from merely a technical examination of the subject matter, this research utilises Anthony Giddens' Structuration Theory as the theoretical framework to guide the study of the complex, interdependent relationship between the actions of humans (agency) and the social systems (structure) (Giddens, 1984; Jones & Karsten, 2008). Giddens' Structuration Theory is uniquely positioned to explain why the dysfunctional organisational patterns present in CMOs in Kenya persist, by moving beyond the simplistic two-sided view that attributes dysfunction to "bad actors" or a "broken system." The three primary components of Giddens's Structuration Theory are structure (the rules and resources available to actors as "memory traces"), agency (actors' ability to act purposefully and "make a difference"), and the duality of structure. The duality of structure, according

to Jones and Karsten (2008), suggests that structure acts as both the means of social action (actors must rely on pre-existing rules to act meaningfully), and as a result of that social action (in doing so, actors recursively recreate and reinforce the same structures, a process Giddens calls "structuration").

Applying Giddens' Structuration Theory, the persistent crisis in Kenyan CMOs is analysed not as isolated failures, but as a stable social system continuously reproduced by its participants (Giddens, 1984; Jones & Karsten, 2008). The existing structure is defined by informal rules of opacity and patronage, with information asymmetry as a key resource. Stakeholders (agents), through rational micro-actions, such as artists accepting opaque payments for survival, unintentionally reproduce this dysfunctional system through the duality of structure. This paper argues that AI is not just a tool but a catalyst for "re-structuration" (Jones & Karsten, 2008). It introduces new structural properties; new rules, algorithmic accountability, and new resources, transparent data dashboards, that dismantle the old information asymmetry. By altering the rules and resources, AI enables transformative agency, empowering artists to "act otherwise". This challenges the system with verifiable data, thus breaking the reproductive cycle. This framework also reframes resistance to AI not as a technical issue but as a "structural defence" (Whittington, 2015) by agents whose power derives from the established, opaque structure.

Methodology

This study adopts a qualitative documentary analysis (QDA) approach, working in concert with the theoretical application of Giddens' Structuration Theory. Given that AI adoption in Kenya's royalty sector remains in its early stages, empirical data on its local use remain limited. This study, therefore, utilises a synthesis of both the primary regulatory documents and secondary comparative data to construct a theoretical model for implementation. The study examined the primary documents, including forensic audit reports from the KECOBO, legal policy papers from the CIPIT, and public press statements regarding CMO performance between 2015 and 2025. To establish a comparative baseline for global best practices. The study further analysed technical reports and case studies on the application of AI in rights management (e.g., BMG, BMAT) from international markets.

Data sources and search strategy

A comprehensive search strategy was used across three key academic databases: Google Scholar, Web of Science, and Scopus. To understand the legal, regulatory, and economic specifics of the Kenyan context, the academic databases were complemented by grey literature from specialised repositories, including reports from the World Intellectual Property Organisation (WIPO); audit statements and press releases from KECOBO; and legal policy documents from the Centre for Intellectual Property and Information Technology Law (CIPIT) at Strathmore University. A combination of Boolean operators linked the three distinct conceptual themes of the search strategy: the context of the African creative economy and Kenyan collecting societies; the challenges of royalty collection/distribution and copyright administration; and the technological innovations of Artificial Intelligence, Automated Content Recognition (ACR), and algorithmic governance.

Inclusion and exclusion criteria

Criteria for filtering the search results were developed to maintain the quality and relevance of the literature examined, as summarised in **Table 2**. The review prioritises literature that examines the administrative, economic and governance dimensions of music rights and excludes literature that focuses exclusively on the creative applications of AI, such as music composition or audio mastering. Maintaining a distinction between the innovative applications of AI and the structural/operational efficiencies of music rights has been essential to focusing the study on operational efficiencies rather than the creative process itself.

Table 2: Inclusion and exclusion criteria, Author, 2025

Criterion	Inclusion criteria	Exclusion criteria	Rationale
Publication date	2015 – 2025	Pre-2015	To ensure analysis covers the modern streaming era and recent AI advancements.
Geography	Global (for technology); Sub-Saharan Africa/Kenya (for policy & structure)	-	Global studies provide technical benchmarks; local studies provide structural context.
Subject focus	Rights management, royalty distribution, CMO governance, data infrastructure.	AI for music composition, audio mastering, or purely musicological analysis.	The study focuses on the business/administrative application of AI, not the creative.
Source type	Peer-reviewed journals, official government/regulatory reports (KECOBO), legal policy papers.	Opinion blogs, unverified news sources, promotional vendor materials.	To maintain academic rigour and reliability of evidence.
Language	English	Non-English	-

Source: *Authors 2025*

Thematic synthesis and discussion

This section provides a thematic synthesis of findings from the audit of legal documents, the technical analysis of specific cases, and the application of sociological theory to examine how the use of artificial intelligence has facilitated "restructuring" within Giddens' theoretical framework. While it is possible to describe the breakdown in Kenya's CMO structure, this section examines how artificial intelligence functions as a particular resource for restructuring a dysfunctional system through a sociological lens.

a. ***The structure of opacity***

An examination of the audit reports of KECOBO (2023, 2024) and the legal analysis of CIPIT (2025a) provides evidence that the problem with Kenya's CMOs is not simply one of administrative incompetence but rather a structural design issue. Specifically, the use of manual data-processing systems (e.g., physical station logs and spreadsheet-based royalty calculations) creates a "structure of opacity," as identified in Giddens' structuration theory. As Giddens states, information is a source of power, and the current administration's decision to keep this source of power manual, fragmented, and inaccessible to artists constitutes a "structure of domination." Two specific methods of this manual failure were identified. First, the process of distributing funds is essentially a "black box." The 2024 press release from KECOBO reported a $260,000 difference in joint collections and that the organisation had failed to comply with the 70/30 distribution mandate for years. In a manual system, it is impossible to verify these calculations without forensic intervention. Secondly, the reliance on broadcasters to manually record their own music usage creates a systematic blind spot. Research globally indicates that manual recording undercounts actual airplay, particularly among independent artists. In Kenya, this structural deficiency consistently disenfranchises emerging artists whose music may be aired during off-peak hours that manual recorders rarely capture or accurately report.

b. ***AI as a transformative resource***

A comparison of global industry best practices identifies AI as both a means of increasing the efficiency of royalty tracking and a mechanism for establishing "objectivity" in the accuracy of royalty reporting. The literature on rights management indicates that AI-based interventions offer an alternative to the structural deficits in Kenya, particularly with respect to the use of Automated Content Recognition (ACR). While manual logs rely on reactive sampling (or guessing at what was aired), ACR technologies provide proactive censuses (or exact knowledge of what was aired) through audio fingerprinting to continuously monitor airplay. In addition, the ability to track airplay for

rapidly evolving musical styles in Kenya, such as Arbantone and Genge, where there is rapid turnover of digital content, enables ACR technology to capture detailed usage data on an artist's music that manual systems would miss. Furthermore, as illustrated by the BMG and Google StreamSight models, integrating machine learning algorithms into royalty-tracking systems enables predictive analytics and forecasting. Therefore, if such a system were implemented in Kenya, it would automatically flag the "ghost members" and "unaccounted withdrawals" identified in investigations by local media outlets, thereby serving as an uncorrupted internal auditor. See Table 3.

Table 3: A comparative analysis of royalty distribution models.

Process stage	Legacy manual system	AI-driven system	Key benefits
Music usage monitoring	Relies on incomplete station logs, statistical sampling, and manual data entry. Prone to human error and manipulation.	Employs 24/7 automated content recognition (ACR) via audio fingerprinting to monitor thousands of broadcast and digital channels in real-time (BMAT, n.d.-b).	**Accuracy:** captures every play, eliminating sampling errors. **Speed:** data is available almost instantly.
Data matching	Manual process of matching logged plays to a fragmented and often inaccurate metadata database. Highly time-consuming.	AI algorithms automatically match detected plays against a centralised, clean metadata database, flagging any inconsistencies for review.	**Efficiency:** reduces processing time from months to hours. **Accuracy:** minimises mismatches and ensures correct rights holder identification.
Royalty calculation	Performed using complex spreadsheets, which are susceptible to formula errors, difficult to audit, and lack transparency.	An automated calculation engine applies pre-defined, transparent tariff rules to the verified usage data to determine royalty splits.	**Transparency:** calculation logic is standardised and auditable. **Speed:** instantaneous calculations for millions of data points.
Stakeholder reporting	Artists receive infrequent, opaque statements with little to no detailed breakdown of earnings.	Provides artists and publishers with secure, web-based dashboards showing near-real-time usage data, earnings, and trends (BMAT, n.d.-a).	**Transparency:** full visibility into earnings sources. **Artist agency:** empowers artists with data to verify payments and make informed career decisions.
Payment distribution	Slow, batch-based payment processing often delayed by months or years due to administrative bottlenecks.	Integrates with digital payment systems for automated, regular, and potentially instantaneous distribution of royalties once thresholds are met.	**Speed:** drastically reduces payment cycles, improving artist cash flow. **Efficiency:** eliminates manual payment processing overhead.

Source: *Authors 2025*

c. ***Re-structuring governance***

Applying Structuration Theory, the introduction of AI fundamentally alters the "duality of structure." Currently, Kenyan artists possess low "agency" because they lack the authoritative resources to challenge CMO decisions. The introduction of AI-driven Stakeholder Dashboards—a standard feature in modern rights management platforms—provides artists with the resource of "authoritative allocation." The synthesis suggests that real-time data access changes the social contract through the mechanism of reflexive monitoring. Giddens argues that agents monitor the flow of their activities to rationalise their conduct; an AI dashboard enables artists to verify a broadcast payment against their own digital monitoring, allowing them to hold institutions accountable in real time rather than waiting for disputed annual audits (Jones & Karsten, 2008). This facilitates a shift from "institutional trust," which has severely eroded in Kenya, to "systemic trust." When the rules of distribution are

hard-coded into an algorithm and visible via a dashboard, trust is no longer dependent on the benevolence of a CMO official but on the auditability of the code.

d. ***Structural barriers to implementation***

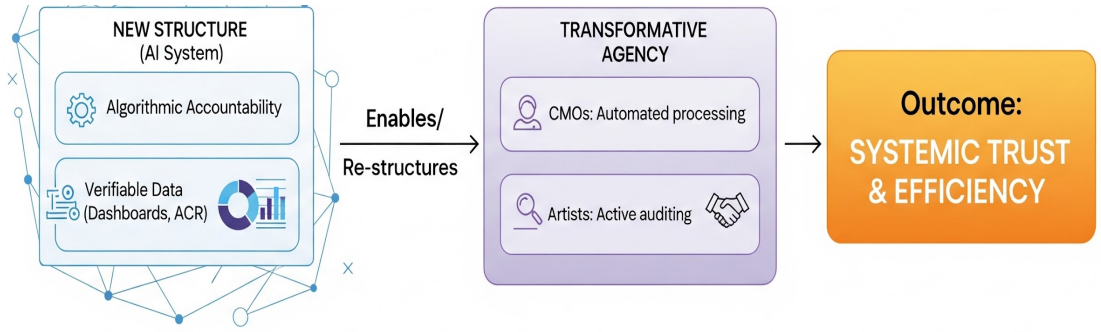
While the potential for re-structuration is high, the literature review identifies significant barriers that threaten the successful adoption of AI in Kenya, tempering techno-optimism with structural reality. The most important hurdle is the "Garbage In, Garbage Out" paradox (Zavodna et al., 2024). Effective AI requires clean, standardised metadata. This, however, differs from reports indicating that the Kenyan music database is fragmented and rife with errors (Kirui, 2024b). Without a foundational "Data Cleanup" phase, implementing AI would simply automate existing errors.

Additionally, the digital divide and cost present substantial challenges. The implementation of enterprise-level systems requires significant capital investment, a barrier for CMOs already struggling with high administrative costs. Furthermore, the effectiveness of transparent dashboards depends on artists' digital literacy; without the capacity to interpret complex data, the structural shift remains theoretical rather than practical (Makori, 2023).

e. ***A phased roadmap for AI adoption in Kenyan CMOs***

The first phase, that this study calls it, Foundational Modernisation, is projected for the first year with the primary objective of creating the clean, robust data infrastructure essential for any future AI implementation. This phase centres on two critical actions. The most crucial is a mandatory, industry-wide project to digitise all the records and establish a single, unified, and standardised national music metadata database. Concurrently, a pilot project would be launched using a proven AI-powered audio fingerprinting system to monitor the top 10 radio and television stations in Nairobi. The overarching goal of this initial phase is to demonstrate the accuracy and reliability of automated monitoring to sceptical stakeholders and to provide clear proof of concept.

Figure 1: The AI re-structuration model: *Author, 2025*



Source: *Authors 2025*

Building on the initial success of the pilot project, the next phase of the integration and transparency in the second stage is anticipated to last two to three years. The primary goal of the next phase is to advance the current system and provide greater transparency to artists. First, the AI-based monitoring

system will need to be rolled out beyond the pilots currently operating across the country's major national broadcasters and commence collecting usage data from Digital Service Providers (DSPs). Second, and perhaps most important to stakeholders, a single, secure website – the Stakeholder Dashboard – will be developed. All registered rights holders will have login access to view how their works are used in near-real time. Third, an automated royalty calculation engine will be developed to eliminate the use of opaque manual spreadsheets for royalty calculations. The royalty calculation engine will apply tariff rules to the verified usage data and, in doing so, provide a fully transparent process for calculating royalties. The ultimate goal of this second stage is transformative – to give artists their first-ever verifiable view of how their music is used, thereby establishing a new level of trust based on data rather than individual assurances.

Conclusion

This study has demonstrated the deep crisis of inefficiency, opacity and distrust that paralyses the music royalty collection process in Kenya. The study indicates that this is not simply a series of isolated incidents of failure but rather a long-established, self-reinforcing social system. Using Anthony Giddens' structuration theory, the problems in Kenyan CMOs are seen as a stable form of reproduced practices, whereby the actions of all stakeholders in the course of their typical workday, subject to a restrictive set of rules and gross disparity in resource availability, each unconsciously reinforces the same dysfunctional processes that are harming them. The central contention of this paper is that AI offers more than a technical improvement; it provides a profoundly empowering means of restructuring. As AI introduces new, non-negotiable rules of algorithmic accountability and provides artists with a transformative resource of verifiable, transparent data on their music usage, it may break the vicious cycle of inefficiency that has persisted in Kenya's music industry for decades. AI can create agency for artists, alter the balance of power and lay the groundwork for a new, more equitable and efficient environment for Kenya's vibrant creative economy.

In order to produce a significant improvement in transparency and efficiency in music royalty collection in Kenya, a multi-faceted strategic plan that includes both technologically required components and financially incentivised elements is needed. To begin with, KECOBO needs to exercise its regulatory powers and require the CMOs to include a minimum technology requirement in their licensing terms. Specifically, KECOBO needs to require all CMOs to either show they already can implement, or that they have a viable strategy to implement automated music monitoring systems, as well as sophisticated stakeholder dashboards that will allow rights holders to monitor their music usage in real-time, and, most importantly, fully auditable digital payment mechanisms. This action will ensure that a minimum standard of technological accountability is met. Secondly, given the considerable financial costs associated with transitioning to digital systems, KECOBO must lead the establishment of a "Creative Technology Transformation Fund". The Creative Technology Transformation Fund will be the primary financing tool to reduce the high upfront costs associated with acquiring and implementing new technologies and to encourage the rapid adoption of more effective and transparent royalty management systems nationally. Finally, KECOBO must develop a comprehensive AI governance framework to address concerns regarding data security, algorithmic fairness, and cybersecurity, thereby safeguarding the national royalty collection ecosystem.

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