

African Journal of Intellectual Property

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Foreword

The African Journal of Intellectual Property (AJIP) commenced publication in 2016 as a biannual peer reviewed publication. The journal captures intellectual property discussions from a variety of perspectives. These range from a practical, theoretical, empirical and regulatory dimension. During the COVID-19 pandemic and the subsequent years, the publication encountered challenges in releasing issues consistently. As a result, the journal lagged behind in its publication of issues.

In 2024, publication resumed with the release of Volume 5, No. 2, dated 2021. Using 2021 as the publication year, however, introduced several challenges for the journal. In view of the challenges, the Editorial Committee resolved to reflect the actual year of publication of an issue without trying to make up for missed publications between 2021 and 2023.

We are therefore thrilled to present this current issue, Volume 6 Number 1 of 2024. We ask for your continued patronage and readership, as we move forward with publications of this exciting journal. Enjoy your reading and remember to submit your articles to ajipjournal@afriau.edu and ajipjournal@aripo.org.

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African Journal of Intellectual Property

GUIDELINES FOR AUTHORS

Manuscript preparation

Articles should be original contributions, not previously published and should not be under consideration to publish elsewhere. Articles should be between 4 000 and 5 000 words, set at 12 point font, in Book Antiqua, with 1½ lines spacing. An abstract of 150–200 words must be included.

Spelling

UK English spelling is preferred; and should conform to the most recent edition of the Concise Oxford English Dictionary.

Footnotes

Footnotes should be avoided and their content must be incorporated into the text. If notes are unavoidable, they must be brief and to the point. Convert them to endnotes.

Referencing style

Please follow the American Psychological Association (APA) referencing style in which:

-in-text citations should state author, date and sometimes page number; and
-reference list, entered alphabetically, must include all the works cited in your article.

Quotations

Short quotes of less than three lines (under 40 words) should run on as part of your sentence with “double quotation marks” to signal where the quote starts and finishes. The page where the quote comes from must be included. Long quotes known as block quotes or indented quotes (more than 40 words) should:

- start on a new line
- be set at 10 point font
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- be single spaced
- not have quotation marks.

Manuscript submission

Articles submitted to the African Journal of Intellectual Property will be reviewed using the double-blind peer review system. Note that plagiarism checks will be carried out on all articles submitted. To protect the author’s identity, do not include the author’s name in the main text or as running heads and footers.

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ASSESSING THE INNOVATION CAPACITY OF PUBLIC UNIVERSITIES: A CASE STUDY OF PATENT RIGHTS AND COMMERCIALISATION POTENTIAL AT KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY

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Abstract

As a leading science and technology institution in Ghana, Kwame Nkrumah University of Science and Technology (KNUST) has a key mandate to spearhead innovation-driven economic growth. However, clear data gaps exist regarding KNUST's intellectual property (IP) productivity and commercialisation of academic research over time. This study evaluated KNUST's capacity to innovate based on metrics like patent generation from student research projects and translation of technologies to market. Specifically, the study entailed a patentability analysis of 640 student theses from the Department of Agricultural and Biosystems Engineering, KNUST, from 2012-2017. The examination revealed 78 potential inventions, with a significant 17.9% demonstrating confirmed novelty for patentability without prior art constraints after further investigation. Though low, this 17.9% patentability rate is a significant finding as it underscores the potential for patent generation from student research projects. However, without formal protection, most identified innovations likely entered the public domain through open thesis publication, representing lost patent licensing or commercialisation opportunities. Correspondingly, 87.8% of projects focused on basic versus applied research. However, 55.6% of alums respondents affirmed the downstream commercial viability of their undergraduate projects given sufficient infrastructure support. However, 90% could not translate concepts into start-ups, post-graduation, due to financing constraints, lack of business mentors and inadequate commercialisation guidance from KNUST's technology transfer office. KNUST demonstrates a strong latent capacity for impact-focused innovation, which can be significantly amplified with strategic investments.

Keywords

Innovation, Intellectual Property Rights, University, Patents, Commercialisation

Introduction

Innovation is vital for universities to drive economic growth in the knowledge economy. Key indicators of a university's innovation performance include patent generation and research commercialisation outcomes (Hsu et al., 2018; Maxwell, 2023). The innovation process involves idea generation and converting ideas into commercially-viable products, processes or services (Khan et al., 2021). As engines of new knowledge creation, universities increasingly seek to translate academic research into socioeconomic impact through entrepreneurial activities. Pressures to supplement traditional funding sources have also pushed universities towards more significant commercialisation efforts to generate licensing revenue from patents, trademarks and copyrights (Caviggioli et al., 2020).

Protecting academic research via patents facilitates commercialisation by providing an incentive and mechanism for industry investment into early-stage technologies, while allowing universities to retain certain rights (Fasi, 2022). Since the US Bayh-Dole Act of 1980 enabled universities to file patents on federally-funded research, university patenting and licensing have expanded dramatically as more institutions pursue entrepreneurial opportunities to supplement dwindling public funding sources (Eisenberg & Cook-Deegan, 2018). However, near-term financial returns are often modest and critics argue that aggressive patenting may impede wider knowledge diffusion compared to open science models (Hou et al., 2022). Recent studies across different national contexts highlight the importance of tailored innovation policies and knowledge transfer support structures within universities rather than patenting alone for translating academic research into economic and social impact (Abdulai et al., 2019).

In addition to patenting and licensing channels for commercialising academic research, universities globally have invested in incubators, science parks and seed funds to support academic startups (Brantnell & Baraldi, 2022). By embracing an entrepreneurial culture, universities can stimulate local and regional economic growth through job creation, enhanced university-industry collaboration and the rise of innovation clusters anchored by academic research (Budyldina, 2018). However, achieving success in technology commercialisation remains challenging for many universities, especially in the context developing countries. Barriers include inadequate proof-of-concept funding, cultural norms that incentivise pure scientific research over entrepreneurship, limited industry linkages and a lack of tailored expertise and resources to bring complex technologies to market (Ayisi et al., 2016; Perkmann et al., 2013).

University innovation models have evolved considerably from a linear model focused solely on openly publishing research towards more interactive models that incorporate intellectual property protection, technology licensing, incubation and academic entrepreneurship as additional pathways for knowledge diffusion (Huggins et al., 2019). Key performance indicators used to benchmark innovation capacity include R&D expenditures, the number of science and engineering graduates, and university patenting and licensing activity (Jamrisko & Lu, 2020). Addressing these gaps requires evaluating the efficacy of current university innovation models and targeted interventions like R&D tax incentives or seed capital programs to support productive academic entrepreneurship ecosystems (Mueller, 2023).

However, there is limited research on whether universities in developing countries like Ghana have been able to harness intellectual property tools to build an entrepreneurial ecosystem effectively. Evaluating KNUST's patent portfolio and technology commercialisation outcomes can provide vital insights into the barriers, best practices and policy interventions needed to enhance the university's innovation capacity.

As a leading science and technology institution in Ghana mandated to spearhead the country's technological advancement, KNUST's innovation capacity warrants examination. However, clear data is

lacking on metrics such as KNUST's patenting activities and student and faculty research commercialisation over time. This study aims to address that research gap by assessing KNUST's potential to innovate based on available indicators related to intellectual property protection and technology transfer.

Methodology

The study employs a mixed methods approach to assessing the innovation capacity of the Department of Agricultural and Biosystems Engineering (DABE) at KNUST from 2012 to 2017. The research design includes quantitative analysis of graduation statistics, identified invention data, and a qualitative survey of DABE alumni. The goal is to understand barriers, motivators, and viability for commercial ventures stemming from academic work. The study follows a three-step process: invention identification and patentability assessment, an alum survey, and quantitative data integration.

Data Sources and Collection

The study utilises both secondary and primary data sources from DABE from 2012 to 2017. The secondary data comprises a systematic examination of 640 DABE student theses (573 undergraduates, 53 Masters, and 14 PhD dissertations) and graduation statistics. The primary data comes from an online survey administered to 126 DABE alums, including 106 graduates and 20 current students, to gauge their perceptions on various parameters related to KNUST's innovation ecosystem, such as resource availability, recognition systems, IP awareness, technology commercialisation support, and motivations.

Data Collection Procedures

The data collection process follows a three-step approach:

Invention identification: Systematic examination of student theses to identify documented inventions with potential commercial viability based on their objectives, features, results, and conclusions.

Alum survey: An online survey was administered to 126 DABE alums to capture contemporary insights on commercialisation barriers, motivations, and perceptions of KNUST's innovation ecosystem.

Integration of quantitative and qualitative data: Combining the findings from the thesis examination and alumni survey to comprehensively evaluate KNUST's innovation capacity and commercialisation potential.

Quantitative Analysis

The quantitative analysis includes the following steps:

Evaluating identified inventions from student theses using global patent databases to assess their novelty, inventive step, and industrial applicability, following the World Intellectual Property Organisation (WIPO) guidelines for patent criteria.

Analysing graduation statistics and comparing them with the identified inventions from student theses.

Conducting descriptive statistical analysis of survey responses to quantify overall trends and test for correlations.

Qualitative Analysis

The qualitative analysis involves content analysis methodology to categorise and analyse free response data from the alumni survey regarding perceived barriers to commercialisation.

Data Integration and Triangulation

The study triangulates findings from the thesis patentability assessments with alumni perceptions of KNUST's ecosystem for supporting entrepreneurial activities. This integration comprehensively evaluates institutional gaps, strengths, and potential innovations to enhance commercial outcomes and socioeconomic impact.

Results

Identifying Commercialisable Student Inventions

Systematic analysis of 640 DABE student theses from 2012-2017 revealed 78 potential inventions based on documented objectives, results, key features and conclusions, representing 12.2% of the total sample. Out of the total, only 17.9% were deemed to have met the criteria for patentability in terms of novelty and inventiveness after considering prior art. Meanwhile, 48.7% were eligible for utility model certificates due to incremental innovations, and 33.33% showed potential for patentability, although this was not confirmed, as shown in Figure 1.

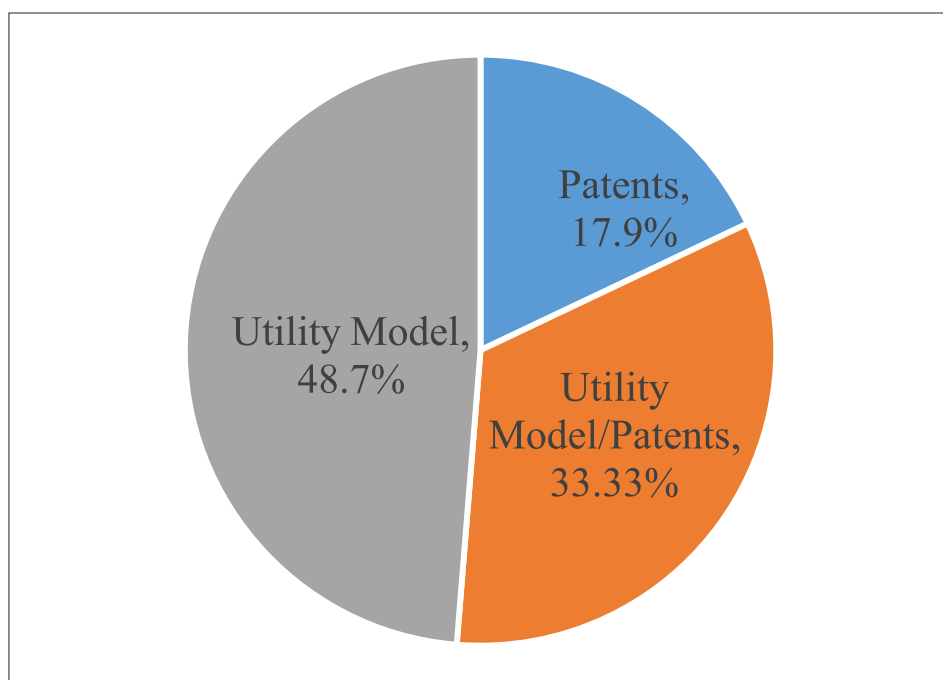


Figure 1. Distribution of patentable inventions

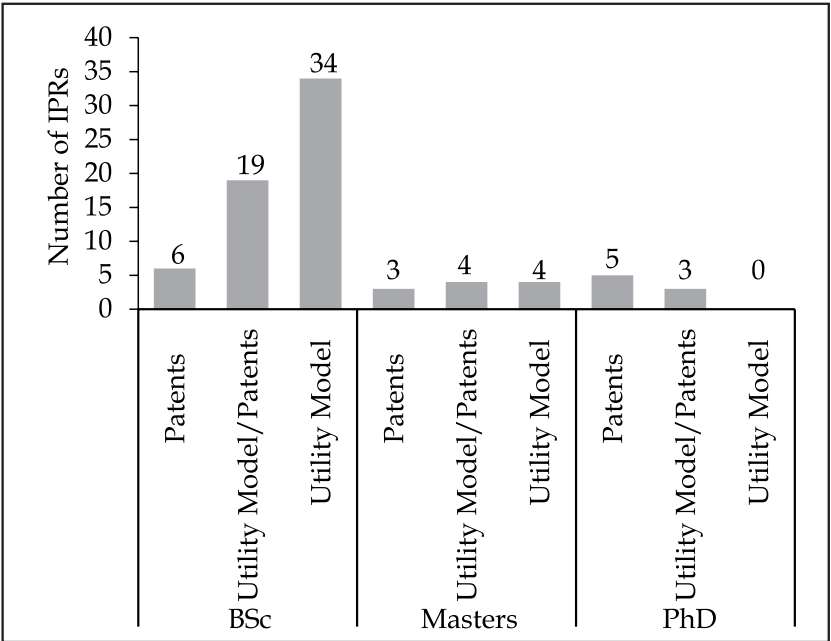


Figure 2. Distribution of identified IPRs per degree

Notably, PhD researchers generated more patentable research (5 inventions) than Master’s (3) and 6 undergraduate theses (Fig.2), reflecting more sophisticated R&D capabilities. Still, the low patent filing rates contrast significantly with productivity benchmarks set by leading global research universities like Stanford or MIT (Reuters, 2018). Without IP protection, most identified inventions have likely entered the public domain through open thesis publication on KNUST’s online institutional repository or lack commercial development. Nonetheless, alumni perceptions reveal significant untapped innovation potential within KNUST, with 61% (n=77) of student and graduate respondents affirming existing commercialisable research outputs in DABE, which remain under-exploited as shown in Table 1:

Table 1. There are potential inventions that can be commercialised in the Department

Response	Frequency	Percentage (%)
Strongly Agree	38	30
Agree	39	31
Neither Agree nor Disagree	28	22
Disagree	19	15
Strongly Disagree	2	2
Total	126	100

Moreover, 71% of respondents (Table 2) denied receiving assistance from the university or department for translating concepts into startups, products or services, affirming the need for better infrastructure to support commercialisation pathways for student entrepreneurs.

Table 2. The department assists students and staff in the commercialisation of inventions

Response	Frequency	Percentage (%)
Strongly Agree	0	0
Agree	9	7
Neither Agree nor Disagree	28	22
Disagree	54	43
Strongly Disagree	35	28
Total	126	100

Challenges Translating Research to Commercial Impact

Survey findings shed light on the ecosystem gaps constraining the transition of DABE student projects into patented technologies,

products and services. Most critically, 78.6% of alumni confirmed an overreliance on self-financing for theses research (Table 4), which limits experimental scope and commercial orientation. While 16.7% accessed external grants, funded projects still represented less than 25% of total survey respondents, as shown in Table 3.

Table 3. Students can access research grants

Response	Frequency	Percentage (%)
Strongly Agree	0	0
Agree	21	16.7
Neither Agree nor Disagree	47	37.3
Disagree	29	23
Strongly Disagree	29	23
Total	126	100

Table 4. Students self-sponsor their thesis or final-year project

Response	Frequency	Percentage (%)
Strongly Agree	86	68.3
Agree	13	10.3
Neither Agree nor Disagree	11	8.7
Disagree	9	7.1
Strongly Disagree	7	5.6
Total	126	100

Relatedly, 80% of participants disagreed that KNUST provides adequate facilities, funds or incentives to nurture impact-focused innovation for solving pressing societal problems versus pure science or basic research.

Table 5. Industry needs drive research conducted in the Department

Response	Frequency	Percentage (%)
Strongly Agree	3	2
Agree	54	43
Neither Agree nor Disagree	18	14
Disagree	18	14
Strongly Disagree	33	26
Total	126	100

However, 48% confirmed that DABE projects generated socially-beneficial solutions, though only half were internationally novel inventions based on low patenting outcomes. Just 28% felt existing reward structures recognised student innovation sufficiently to motivate further creation. Accordingly, approximately 50% saw greater value in publishing research over IP protection or (Table 7), with only 28.6% confirming intent to patent their projects (Table 6) despite 55.6% having potential commercial viability.

Table 6. Researchers are interested in patenting their inventions

Response	Frequency	Percentage (%)
Strongly Agree	14	11.1
Agree	22	17.5
Neither Agree nor Disagree	53	42.1
Disagree	23	18.3
Strongly Disagree	14	11.1
Total	126	100

Table 7. Researchers (Inventors) are interested in publishing than patenting

Response	Frequency	Percentage (%)
Strongly Agree	28	22.2
Agree	33	26.2
Neither Agree nor Disagree	45	35.7
Disagree	8	6.3
Strongly Disagree	12	9.5
Total	126	100

Boosting Innovation and Commercialisation Support

Still 70% of alumni felt latent innovations from DABE and likely other KNUST departments can be commercialised, signifying noteworthy untapped potential. With appropriate proof-of-concept funding, tailored advisory mechanisms, and better industry linkages channelled through the KNUST Technology Transfer Centre, promising student research can be fostered into patented technologies or spin-off companies to achieve broader economic and social returns on R&D investments. More than just generating licensing revenue, embracing academic entrepreneurship can stimulate local cluster development and deliver open-access solutions to pressing development needs in Ghana and similar contexts (Katzman & Azziz, 2021).

According to (Haeussler & Assmus, 2021), the gap between research activity and innovation is the failure of research institutions to translate research into innovations. Primarily, innovation begins with an invention, then develops into a product in a development phase, and then the product is introduced to the market space (Silva et al., 2016).

Additionally, ratifying more flexible utility model protection for incremental innovations can make IP tools accessible for student entrepreneurs wanting to develop their projects commercially, while studying or upon graduation. Reduced filing stringency

and costs through university-level agreements with the national patent office provide an intermediate IP option better aligned to the capabilities of early-stage academic ventures.

Reorienting institutional and cultural norms to value applied research and entrepreneurship as much as scientific publications are also critical for catalysing impact-focused innovation among students and faculty. Universities have recently realised the capability of student inventions and are creating opportunities and supporting these inventors. Some of these institutions now provide patent prosecution, mentoring, and financing to ensure the invention is launched on the market. They also provide incentives to motivate students to work with the university (Garon, 2018). Innovation generally thrives in an environment where it is encouraged (OECD, 2009).

Academic advancement criteria emphasising real-world problem-solving can incentivise more needs-based projects with commercial viability and social relevance. Mainstreaming IP literacy and awareness workshops will further strengthen human capital development towards harnessing knowledge diffusion for economic growth - a key mandate for the university and nation (National Intellectual Property Policy & Strategy, 2016).

In summary, study findings reveal KNUST has significant potential to emerge as an entrepreneurial university that seeds more startups, open access solutions for pressing development gaps and licensed technologies for driving industrial growth in Ghana. Tapping into this high-impact innovation pathway requires addressing underlying resource constraints and systemic disincentives for commercialisation faced by student researchers and faculty. Implementing tailored proof-of-concept funding schemes, lean IP support mechanisms via the Technology Transfer Centre, and enhanced industry participation can help translate promising research concepts into patented products and services and shift student motivations from publication to real-world impact.

Discussion

Synthesising thesis analysis outcomes, alumni perceptions, and relevant innovation theory allows several inferences regarding KNUST's capacity for technology development, IP commercialisation and driving economic growth. Findings confirm that KNUST demonstrates the promising potential to emerge as an entrepreneurial university catalysing socio-economic progress in Ghana. However, strategic constraints related to funding, incentivisation, industry collaboration and IP support presently restrict researchers from harnessing academic knowledge for developmental solutions.

KNUST falls short of global benchmarks for top-tier research universities on patent generation or licensing returns, which is unsurprising for a developing country (Reuters, 2018). However, identified gaps likely stem from systemic disincentives and inadequate investment in differentiation infrastructure rather than faculty creativity constraints. With 12.2% of analysed student projects demonstrating commercial promise (78 potential IP disclosures from 640 theses), the sheer volume of high-calibre STEM research holds noteworthy innovation potential, outweighing peers elsewhere in Africa (Czarnitzki & Delanote, 2015). Furthermore, 61% of alumni confirmed latent technologies, prototypes or methods with viability for real-world implementation.

Unfortunately, none of these inventions has been filed, which could be attributed to the failure to realise that the commercial value needs to be further protected. Another possible deduction that can be made is that university authorities do not have any interest in student research. However, the involvement of students in research, according to Adebisi (2022), has positive value for a university. As low as the numbers may look and as trivial as the inventions may seem, students are increasingly involved in developing commercially-viable products through project works and other academic activities (Duval-Couetil et al., 2014).

However, 90% could not actualise ambitions beyond graduation, citing limited facilities, proof-of-concept financing and lack of commercialisation mentors as primary hurdles. Currently,

transition support through the KNUST Technology Transfer Centre also remains inadequate. These barriers, combined with cultural and academic norms that reward publications over patents or startups, restrict researchers' motivations too. However, purposefully reconfiguring institutional ecosystems to nurture commercial outcomes has proven successful in contexts like Europe, the US and East Asia (Hamilton-Hart & Wai-Chung, 2019). The imperative and ingredients for doing so also exist at KNUST.

Paths to Unlocking Innovation Potential

Strategically directing resources towards high-impact STEM research and hands-on entrepreneurship education can cultivate talented innovators adept at solving complex societal problems. Though KNUST's aggregate graduate output tilts worryingly towards non-STEM domains, science and engineering scholars demonstrate disproportionate patent productivity, including 5 doctoral inventions from just 14 PhDs. Preserving STEM differentiation advantages must remain a policy priority.

Equally, mainstreaming specialised modules on IP management, technology commercialisation, and lean startup methodologies will bolster innovation capacities university-wide. Embedding these skillsets early and consistently before project conceptualisation stages can organically orient students towards needs-focused real-world outcomes over purely academic achievements like peer publications. Proven, replicable models exist for such high-impact, entrepreneurial curricula integrating experiential team learning with academic rigour (Duval-Couetil et al., 2014).

In parallel, operationalising a multi-tiered seed fund resourced via alumni endowments, corporate CSR, and public agencies would provide crucial proof-of-concept financing to transform high-potential studies into investment-ready ventures. Many universities offer such mechanisms to propel promising student projects from prototype to commercial viability stages (Jussila et al., 2020).

Appointing a Visiting Innovators-in-Residence program featuring Ghanaian entrepreneur mentors can further guide technology maturation. Strategic industry partnerships are also vital for validating real-market utility. An integrated innovation ecosystem

encompassing training, financing and expert mentors is thus, essential to unlock KNUST's latent IP commercialisation potential.

Policy Reforms to Incentivise Innovation

However, effectuating structural shifts requires concomitant policy reforms. Currently, 87.8% of analysed student projects prioritise basic over applied research. With novel contribution taking primacy, considerations like product design, affordability, scale manufacturing or even copyrighting receive inadequate emphasis, although 55.6% confirmed viable commercialisation potential. Mainstreaming channels for open student participation in national innovation challenges, like the Presidential Pitch program, can help align projects to real needs. However, lasting behavioural change depends on internal academic advancement metrics.

While publishing remains vital for global scientific progress, academic promotion policies must evolve to equally reward technology transfers, startup funding, and social impact metrics. Reserved professorships for distinguished alumni entrepreneurs or quotas for industry advisors on departmental panels can further signify that innovation and commercial excellence are valued institutionally alongside scholarly milestones. In furtherance to the issue of publications, a review conducted by Cubero et al. (2021) shows that involvement in commercialisation activities is associated with an observed increase in publications without compromising the nature of the publication. Updated standards will formally cement an enhanced university mission encompassing societal and economic contributions beyond pure theory, mirroring similar reforms abroad (Reed et al., 2021). With vision-aligned incentives, continuous, high-quality IP disclosures and commercial ventures can sustainably flow from KNUST labs, workshops and classrooms into the national innovation ecosystem.

In conclusion, findings confirm that KNUST possesses the underlying potential to emerge as an innovation nexus fostering knowledge-economy growth in Ghana. However, strategic constraints related to commercialisation incentives and supporting infrastructure must be addressed through integrated reforms encompassing tailored seed financing mechanisms, industry linkages and updated institutional policies that formally value entrepreneurial impact alongside academic merit. With vision-aligned efforts, the

university can deliver more patented inventions, impact-focused startups and grassroots solutions that uplift citizens' welfare and national competitiveness. The next phase entails operationalising recommended interventions via an entrepreneurial action plan with stakeholders.

Conclusion

This study evaluated KNUST's capacity for innovation and research commercialisation based on patent indicators from student thesis projects and alumni perspectives regarding barriers, motivators and viability for developing commercial ventures stemming from academic work. Findings revealed that 12.2% of examined theses across 6 years demonstrated promising inventions, although just 14 met full patentability criteria. This patenting productivity lags behind global benchmarks, with nearly 90% of projects focused more on basic over applied research.

Nonetheless, 55.6% of student and graduate respondents affirmed the downstream commercial potential of their research with adequate translation support. However, 90% could not create startups afterwards due to financing constraints, administrative complexities and cultural incentives favouring scientific publishing over patents or entrepreneurship. Correspondingly, 61% agreed that latent innovations lose momentum after student graduation across KNUST departments, because of resource limitations and lack of private sector mentors or institutional commercialisation guidance.

Accordingly, strategic investments into infrastructure and policy reforms are imperative to strengthen KNUST's capacity as an entrepreneurial university and national innovation catalyst. Operationalising a multi-tiered proof-of-concept seed fund, formal industry mentorship programs, mandatory entrepreneurial modules across curricula and updated academic promotion criteria that equally reward technology transfers, startups and social impact alongside publications can help transform high-potential student projects into patented goods, services and scalable ventures.

While this study focused only on one department at KNUST, findings have broader generalisability and implications considering commonalities in institutional barriers across Ghanaian public universities. By benchmarking gaps in the nation's science and technology flagship, targeted interventions here can inform replication elsewhere to boost patent productivity and commercialisation towards greater economic and social contribution. Nonetheless, analysing technology transfer data and innovation policy impacts university-wide merits future research.

In conclusion, purposeful mission reorientation backed by strategic investments into high-impact research, entrepreneurship training and private sector engagement can help KNUST deliver on national expectations to spearhead innovation-led growth. With latent capacity confirmed, implementing coordinated commercialisation incentives and supporting structures promises significant long-term dividends by accelerating knowledge diffusion into patriotic ventures that uplift citizens' welfare. The next phase will entail developing an executable roadmap in collaboration with institutional leadership and policymakers.

Further studies

The study's focus on a single department at KNUST limits the broader applicability of its findings. Therefore, further research should be conducted in other departments. However, the in-depth within-case analysis offers a replicable methodology that can be applied to similar assessments in other developing countries.

References

- Abdulai, A.-F., Murphy, L., & Thomas, B. (2019). University Knowledge Transfer and Innovation Performance in Firms: The Ghanaian Experience. *International Journal of Innovation Management*, 24(03), 2050023. <https://doi.org/10.1142/s1363919620500231>
- Adebisi, Y. A. (2022). Undergraduate students' involvement in research: Values, benefits, barriers and recommendations.

- Annals of Medicine and Surgery*, 81. <https://doi.org/10.1016/J.AMSU.2022.104384>
- Ayisi, J. G., Kivengea, G. M., & Ombakho, G. A. (2016). Initiatives to Promote Commercialization of Research Outputs by Kenyan Universities. *Elixir International Journal*, 100, 43517–43529.
- Brantnell, A., & Baraldi, E. (2022). Understanding the roles and involvement of technology transfer offices in the commercialization of university research. *Technovation*, 115, 102525. <https://doi.org/10.1016/J.TECHNOVATION.2022.102525>
- Budyldina, N. (2018). Entrepreneurial universities and regional contribution. *International Entrepreneurship and Management Journal*, 14(2), 265–277. <https://doi.org/10.1007/s11365-018-0500-0>
- Caviggioli, F., De Marco, A., Montobbio, F., & Ughetto, E. (2020). The licensing and selling of inventions by US universities. *Technological Forecasting and Social Change*, 159, 120189. <https://doi.org/10.1016/J.TECHFORE.2020.120189>
- Czarnitzki, D., & Delanote, J. (2015). R&D policies for young SMEs: input and output effects. *Small Business Economics*, 45(3), 465–485. <https://www.jstor.org/stable/44697197>
- Duval-Couetil, N., Pilcher, J., Weilerstein, P., & Gotch, C. (2014). Undergraduate Involvement in Intellectual Property Protection at Universities: Views from Technology Transfer Professionals. *International Journal of Engineering Education*, Vol. 30, No. 1, 2014, 60–71.
- Eisenberg, R. S., & Cook-Deegan, R. (2018). Universities: The Fallen Angels of Bayh-Dole? *Daedalus*, 147(4), 76–89. https://doi.org/10.1162/DAED_A_00521
- Fasi, M. A. (2022). An Overview on patenting trends and technology commercialization practices in the university Technology Transfer Offices in USA and China. *World Patent Information*, 68, 102097. <https://doi.org/10.1016/J.WPI.2022.102097>
- Garon, J. M. (2018). Ownership of University Intellectual Property. *Cardozo Arts & Entertainment Law Journal*, 36(3).
- Haeussler, C., & Assmus, A. (2021). Bridging the gap between invention and innovation: Increasing success rates in publicly and industry-funded clinical trials. *Research Policy*, 50(2), 104155. <https://doi.org/10.1016/J.RESPOL.2020.104155>
- Hamilton-Hart, N., & Wai-chung Yeung, H. (2019). Institutions under pressure: East Asian states, global markets and national firms. *Review of International Political Economy*, 10(3), 1–25. <https://doi.org/10.1080/09692290.2019.1702571>

- Hou, J., Tang, S., Song, H., & Zhang, Y. (2022). Does Prior Knowledge Affect Patent Technology Diffusion? A Semantic-Based Patent Citation Contribution Analysis. *SSRN Electronic Journal*. <https://doi.org/10.2139/SSRN.4081055>
- Hsu, D.H., Hsu, P.-H., Zhou, T., & Ziedonis, A. A. (2018). Benchmarking U.S. University Technology Commercialization Efforts: A New Approach. *SSRN Electronic Journal*. <https://doi.org/10.2139/SSRN.3264090>
- Huggins, R., Prokop, D., & Thompson, P. (2019). Universities and open innovation: the determinants of network centrality. *The Journal of Technology Transfer*, 45(3). <https://doi.org/10.1007/s10961-019-09720-5>
- Intellectual, N. (2016). Property, Policy and Strategy. *Ghana*, 8–55.
- Jamrisko, M., & Lu, W. (2020). Bloomberg Innovation Index. *Bloomberg*. <https://www.bloomberg.com/news/articles/2020-01-18/germany-breaks-korea-s-six-year-streak-as-most-innovative-nation>
- Jussila, J., Raitanen, J., Partanen, A., Tuomela, V., Siipola, V., & Kunnari, I. (2020). Rapid Product Development in University-Industry Collaboration: Case Study of a Smart Design. *Technology Innovation Management Review*, 10(3), 49–59. <https://doi.org/10.22215/timreview/1336>
- Katzman, R. S., & Azziz, R. (2021). Technology Transfer and Commercialization as a Source for New Revenue Generation for Higher Education Institutions and for Local Economies. *International Experience in Developing the Financial Resources of Universities*, 89–111. https://doi.org/10.1007/978-3-030-78893-3_8
- Khan, R., Heikkilä, J., Mubarak, S., & Luomakoski, J. (2021). Innovation Process in Business Idea Generation: A Case of an Entrepreneurial Hackathon. *EDULEARN21 Proceedings*, 1, 826–834. <https://doi.org/10.21125/EDULEARN.2021.0225>
- Maxwell, A. (2023). Enhancing the Commercialization of University Research. *Innovation, Technology and Knowledge Management, Part F1550*, 57–78. https://doi.org/10.1007/978-3-031-40324-8_4
- Mueller, C. E. (2023). *Improving universities' activities in academic startup support through public interventions: The effectiveness of the German programme "EXIST – leverage of potentials."* *Research Evaluation*. <https://doi.org/10.1093/reseval/rvad009>
- Nieto Cubero, J., Gbadegeshin, S. A., & Consolación, C. (2021). Commercialization of disruptive innovations: Literature

- review and proposal for a process framework. *International Journal of Innovation Studies*, 5(3), 127–144. <https://doi.org/10.1016/J.IJIS.2021.07.001>
- OECD. (2009). *OECD patent statistics manual*. OECD.
- Perkmann, M., Tartari, V., McKelvey, M., Autio, E., Broström, A., D'Este, P., Fini, R., Geuna, A., Grimaldi, R., Hughes, A., Krabel, S., Kitson, M., Llerena, P., Lissoni, F., Salter, A., & Sobrero, M. (2013). Academic engagement and commercialisation: A review of the literature on university–industry relations. *Research Policy*, 42(2), 423–442. <https://doi.org/10.1016/j.respol.2012.09.007>
- Reed, M. S., Ferré, M., Martin-Ortega, J., Blanche, R., Lawford-Rolfe, R., Dallimer, M., & Holden, J. (2021). Evaluating impact from research: A methodological framework. *Research Policy*, 50(4), 104147. <https://doi.org/10.1016/J.RESPOL.2020.104147>
- Reuters. (2018). *Top 100 World Innovative Universities*. *www.reuters.com*. <https://www.reuters.com/innovative-universities-2018/profile?uid=2>
- Silva, F. M. da, Oliveira, E. A. de A. Q., & Moraes, M. B. de. (2016). Innovation development process in small and medium technology-based companies. *RAI Revista de Administração e Inovação*, 13(3), 176–189. <https://doi.org/10.1016/J.RAI.2016.04.005>

THE ROLE OF PATENTS AND TECHNICAL STANDARDS IN THE DEVELOPMENT OF AFRICAN SMART CITIES

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Abstract

This paper explores the evolution and implementation of smart cities in Africa, drawing parallels between ancient urban achievements and modern technological initiatives. Highlighting Great Zimbabwe's architectural sophistication as a precursor to today's smart cities, the study delves into current projects like Konza City and Cape Town. These cities integrate advanced technologies such as IoT, 4G, and 5G to enhance urban life and sustainability. Key challenges include integrating patented technologies within these urban frameworks, emphasising the complex relationship between technology implementers and patent holders. The paper discusses the impact of intellectual property (IP) policies on fostering innovation while protecting R&D investments, crucial for sustainable urban development. Through a detailed examination of Cape Town's smart city initiatives, the analysis underscores South Africa's proactive approach to aligning IP policies with public health and innovation, promoting balanced and inclusive technological advancement. This article advocates for a balanced approach to IP in Africa, ensuring that technological and regulatory frameworks serve broad socio-economic goals, enhancing both the competitiveness of industries and the efficacy of urban governance.

Keywords

Smart Cities, Intellectual Property, 5G Technology, Urban Sustainability, African Innovation

Introduction: The history of futuristic cities

Between the 11th and 15th centuries, an amazing city once stood tall in its majesty and unparalleled grandeur. Second only to the pyramids of Giza in terms of size in Sub-Saharan Africa, the Great Zimbabwe stone ruins are acknowledged by archaeologists and historians as proof of the existence of a highly-civilised and socially organised African people (Randall-MacIver, 1906; Garlake, 1973; Huffman & Vogel, 1991). The ruins of the city, located in modern-day south-eastern Zimbabwe, tell the story of a civilisation that was involved in trade with other nations and capture the legend of an advanced city that housed between 10,000 and 20,000 people at its peak (National Geographic Society, 2022; Kantor & Kantor, 1989). Indeed, this was a city constructed way ahead of its time. The structures boasted of intelligent drainage systems that, to this day, can still funnel rainwater outside the ruins and enclosures down into the surrounding valleys and solid perimeter walls up to 10 meters high and 5 meters wide in certain sections (Koutonin, 2016). As Ncube (2016) aptly notes, such an architectural marvel amounts to a record of African creativity and innovation on a grand scale.

A parallel can be drawn between these ancient cities and what is currently emerging in Africa: the concept of smart cities has taken root again. Various noteworthy initiatives towards smart cities include the 'Silicon Savanna' or Konza City, Eko Atlantic City, Kigali Innovation City, and Cape Town. These cities are only a few examples of the direction African countries are journeying towards. More than 300 African mayors are showing keen interest in implementing the smart city concept (Echendu & Okafor, 2021), and evidence of integration of new technologies into urban African infrastructure abounds (Erastus et al., 2020; Mboup & Oyelaran-Oyeyinka, 2019). Smart cities usually feature smart lighting systems, smart waste management systems, and intelligent traffic management systems, all essential for sustainable development and properly functional urban settlements (Steadman, 2013; Jagganath, 2021). Most of these technologies are dependent on the Fourth and Fifth Generation cellular standards (4G and 5G), which support high-speed, low-latency communication capabilities between the technologies directly (Dohler et al., 2011).

New and emerging technologies supporting smart city infrastructure are often protected by patents and other types of IP to safeguard research and development (R&D) costs and incentivise future innovations. In circumstances where patented inventions are incorporated into standardised technology, the relationship between the implementer of a technical standard and the patent holder may become very complicated (Maskus et al., 2013; Bekkers, 2017). This is because patents entitle the holder to exclude others, while technical standards compel implementers and manufacturers to use patented solutions.

This article considers smart city initiatives in Africa. It will define smart cities and discuss the central role of connectivity and mobile internet penetration in Africa. The article will also discuss the complex but essential relationship between technical standards, patents and innovation before looking at Cape Town as a specific smart city case-study. It will also unpack the challenges and policy recommendations for sustainable, accelerated adoption of smart cities in an African context, and concludes by calling for Afro-centric/principled approaches to protect Africa from Geopolitical machinations taking over standards, encouraging balancing IP protection, technology development and use in the context of cellular standards.

Smart Cities and connectivity

What are smart cities?

A smart city is an urban area that uses advanced technology to manage and optimise resource usage to improve the quality of life of its citizenry. A city exhibits the qualities of 'smartness' when it prioritises investments in its human capital, reimagines its transportation networks, and integrates contemporary digital technologies (Giffinger et al., 2007; Bakici et al., 2013). These endeavours catalyse sustainable economic growth, augment residents' well-being, underscore responsible resource management, and promote a governance model grounded in citizen participation (Kourtiti et al., 2015).

Estimates suggested that in Africa, rapid rural-urban migration would cause challenges in urban infrastructure due to years

of hostilities and neglect (Deloitte, 2014). Indeed, some urban settlements in African cities need to be adequately equipped to handle the current influx of people because most cities were constructed during colonial times and were not improved upon after colonialism. Pressure on physical infrastructure creates constraints on the ability of city administrations to deliver water and electricity, manage transport, deliver healthcare and education and create economic opportunities (Freire et al., 2014; du Toit & Stimie, 2023).

Smart cities solve these problems through efficient resource management by implementing sensors and deploying high-speed internet networks that enable Internet of Things (IoT) devices to be an essential component of local infrastructure. The purpose of this technology is to allow for connectivity and data collection, which empowers local authorities and other private-sector service providers to make real-time decisions that improve governance and operations in the city (Siegele, 2012). It is therefore, more accessible for the local administration to make optimal use of scarce resources such as energy and water, which are often quite limited in many African contexts (Burkhardt & P. Naidoo (2023). Moreover, the problem of rubbish collection, a serious one in many African countries, can also be addressed. Efficient waste management and reduction is an advantage that stems from intelligent systems that communicate directly with refuse collection entities within the smart city. Smart cities can reduce waste, thereby improving service delivery.

Konza City in Kenya is considered a leading hub in the Africa's technology sector, mainly due to its early and strategic engagements with major technology-centric multinational corporations. IBM opened its first African research lab in Kenya in 2012, and other tech giants like Microsoft, Intel, and Google have also chosen Kenya as their regional headquarters (Guma, 2019). Innovation and invention are crucial parameters for Kenya's industrialisation and human and socio-economic development (Sihanya, 2018).

Allwinkle and Cruickshank (2011) argue that intelligent use of data and technology increases efficiency and sustainability. Technology-embedded smart cities can improve the delivery of essential services

in critical areas of African society, such as the education sector, public healthcare, and transportation. This type of convenience improves the living standards of local citizens. When citizens live smart lives, the city can only be truly smart (Mboup & Oyelaran-Oyeyinka, 2019).

The SmartCape Access project in Cape Town rolled out libraries with modern PCs and free Internet access (Nair et al., 2020). The rationale behind this project was to equip its inhabitants with state-of-the-art facilities to help them with their day-to-day activities. Cape Town utilises private partnerships with local businesses and seeks to become a smarter and more liveable city.

Kigali Innovation City in Rwanda is another prime example of how targeted technology can address specific urban challenges. It is expected to generate a significant positive developmental impact, including creating over 50,000 jobs, increasing higher education enrolment, and improving efficiency of public works management (USTDA, 2022). The 61-hectare development within the Gasabo district will encompass a work-live-play community that integrates universities, state-of-the-art offices, residential and student housing, retail facilities and business hotels in an innovative and green smart-city concept (Moraes, 2022). Kigali has integrated smart waste management systems that use IoT sensors to monitor and manage the city's waste collection processes efficiently (Baffoe, et al., 2020). These systems optimise route planning for collection trucks and provide data that helps predict waste generation patterns, leading to better resource allocation and reduced operational costs. This proactive approach in Kigali showcases how leveraging technology can significantly improve municipal services and urban cleanliness (Joel, 2023).

The role of connectivity in smart cities

Echendu and Okafor (2021) propose that the foundation of a smart city is built primarily on three pillars: The IoT, analytics and governance. Since this work focuses on 5G technology in the context of smart cities, a discussion of analytics and governance aspects in smart cities is beyond the scope of this paper. These areas are, however, exciting areas for further research and writing.

A smart city operates on the systematic interconnection of separate physical devices, sensors, and other objects designed based on technical standards that allow communication and information exchange over a network, thus integrating them into the internet (Zanella et al., 2014). In Africa, this interconnection can be facilitated by cellular standards because of the deep penetration and widespread adoption of mobile internet and related infrastructure.

Cellular standards are technical specifications or instructions on how different manufacturers can design their products, deliver services or guarantee interoperability with products from other manufacturers. Implementing the same technical standards in Apple and Samsung smartphones guarantees their ability to communicate despite being made by different vendors. Typically, cellular standards are developed by Standards Development Organisations (SDOs) through open and consensus-driven processes where various technology experts propose and debate patented solutions in order to select the best way of designing products that can connect to 5G (Abdelkafi et al., 2021; Baron & Gupta, 2018).

More than half of global 4G network expansion was in Sub-Saharan Africa, increasing from 58% in 2021 to 65% in 2022 (GSMA, 2023). While gaps in internet usage are still significant, this is indeed good progress that Africa can leverage to accelerate the adoption of smart city infrastructure. This supports the idea that cellular standards could be the most accessible technology for Africa to transition to smart cities.

Furthermore, projections estimate that there will be 700 million unique mobile subscribers in Sub-Saharan Africa and that 4G connections in the region will double to reach 49% by 2030 (GSMA, 2023). Meanwhile, GSMA (2023) estimates that 5G connections will reach 226 million in 2030, accounting for 17% of the population in Sub-Saharan Africa. Steenbruggen, et al (2015) argue that the digital revolution triggered by mobile connectivity has empowered local authorities and policymakers to take advantage of synergies between ICT and urbanisation. Thus, a more connected world facilitates rapid communication and data-sharing between residents of smart cities and their public administration authorities.

In contrast to Western and Eastern nations, Africa demonstrates a more significant advantage in adopting and leveraging new technologies due to the absence of costly maintenance for outdated infrastructures and legacy systems (Lazaroiu & Roscia, 2018). For example, Libya, Ethiopia, and South Sudan can immediately explore implementing 4G and 5G networks since they lack telecommunication cable installations and do not have to transition from analogue to ADSL technology (Deloitte, 2014).

The significant mobile user base in Africa highlights the importance of technology adoption and innovation in addressing infrastructure challenges and driving economic growth. By leveraging cellular standards, African countries can leapfrog traditional development pathways and accelerate their journey towards smart, sustainable urban environments. Because of connectivity guaranteed by cellular standards, intelligent transportation systems, and efficient energy and smart water management systems can be implemented successfully in Africa, too (Ericsson, 2022; Nibeza, 2015). As the central feature of smart cities, IoT sensors and other smart devices use these 4G and 5G standards to monitor, evaluate and report data about air quality, traffic patterns, and energy use independently. Wireless connectivity is critical to enable flexible design, novel use cases and on-the-fly reconfiguration because many of these IoT sensors and devices will be embedded in difficult-to-reach, tiny or dangerously high locations (Ericsson, 2018).

A well-balanced IP regime should be built into the development of African smart cities to foster innovation and attract investment. Such a regime takes into account the country's socio-economic conditions and development goals instead of using the 'one-size-fits-all' approach (Development Agenda Group, 2010). This theme resonates through a series of scholarly works focused on the role of IoT technologies in advancing smart, sustainable cities, particularly in the African context. Protecting IP in a balanced manner can stimulate technological advancement and economic growth in Africa for both the innovators and the implementers of patented technologies.

The importance of resilience and sustainability in smart cities, focusing on the IoTs' role in data collection and information synthesis, must

be recognised (Chui et al., 2022). The discussion on the resilience of IoT solutions highlights the technological underpinnings of smart cities and stresses the need for calibrated IP frameworks that protect the innovations driving these advancements. By safeguarding the technologies that enable resilience and sustainability, cities can ensure their smart infrastructures' continuous improvement and reliability (Chui et al., 2022).

The Smart Africa Initiative (2017) details the IoTs' benefits and critical role in enabling smart urban services. It argues for a comprehensive approach to sharing ideas, data and increased collaboration, which can be supported by balanced IP protections while still rewarding innovation. Such a balanced IP approach is essential for attracting developers and investors who are pivotal to realising smart city projects, thus driving economic development and technological progress (Smart Africa, 2017).

Chui et al. (2022) extend the discussion by reviewing IoT-based initiatives for sustainable smart cities and proposing frameworks for future urban developments. They suggest that smart city initiatives will be driven by artificial intelligence models that must be trained on massive datasets. It is easy to foresee that IP rights to the data itself will be a fundamental discussion in future and promote the ability of African administrations to monetise these initiatives or to attract investments. By establishing transparent and fair IP protections, cities can better collaborate with technology providers and researchers to develop innovative and applicable solutions across different urban contexts.

Mboup and Oyelaran-Oyeyinka (2019) underscore the intersection of technology and economy in African smart cities. Existing knowledge around smart cities can aid in the planning, designing, and managing urbanisation in Africa, contributing to the advancement of e-commerce, e-education, and e-governance. Suitable IP protections enable access and diffusion of innovation and knowledge. A smart city economy should protect home-grown innovations to incentivise African solutions to African challenges. A well-designed IP system can drive the growth of smart economies by ensuring that investments in local solutions and ICT yield returns, thereby attracting further investment and innovation.

Cellular standards, patents and innovation

Innovative companies, mainly from the US, EU and China, invest vast amounts in R&D in order to develop cutting-edge technical solutions that make mobile internet much faster, more stable and more robust (Tsilikas & Tapia, 2017). The strength and quality of mobile connectivity are critical to the safety and functionality of devices in the smart city ecosystem. Without stable internet connections, self-driving vehicles, remote robotic surgery, and precision drone deliveries (including autonomous and semi-autonomous robots and weapons) can become dangerous to operate.

Innovators generally rely on patents in order to protect their technology. By definition, patents are statutory rights given by the state to an inventor as an economic incentive for an invention that is new, commercially applicable and non-obvious to a person skilled in the art (Ann, 2019). Exclusivity granted to an inventor and the attendant economic incentives created by patent rights encourage continued innovation and economic development (Kitch, 1977; Olhausen, 2016).

However, in an African context, many scholars have castigated a one-size-fits-all approach to patent law and emphasised that the goal should be to promote the granting of higher-quality patents aligned with national and African priorities. (Ncube et al., 2019). Boldrin and Levine (2013) opine that patents, in and of themselves, might not be a panacea for productivity growth. Some argue that the exclusive rights of patent holders, along with other aspects of foreign IPRs originating outside of Africa, forcibly displaced traditional knowledge governance systems, while entrenching an exclusive and extractor-biased IP system on the continent (Ncube, 2016). Some scholars argue that developing countries are coerced into adopting excessively stringent IP standards due to pressure from developed nations. (Drahos, 2005). Stronger IP protections are thus viewed with great suspicion (Maskus & Reichman, 2004), especially in light of the significant access to healthcare challenges that Africa faces (Hoen et al., 2011; Gold et al., 2010).

However, while acknowledging the need for balancing IP systems in Africa, this paper further distinguishes between average and standard essential patents (SEPs). Firstly, regular patents are, conceptually and by their very design, intended to allow an inventor to enjoy a time-limited monopoly on the commercial production of an invention, with the right to exclude being freely used by the patentee, subject to competition law rules (Baxter, 1966; Gilbert & Newbery, 1982). SEPs, however, are different. Since the patented goods are incorporated into a technical standard that all market participants must use and the right to exclude is also limited to situations where implementers exhibit bad-faith practices in licensing negotiations (Contreras, 2015; Angwenyi, 2017).

Standards create a shared technical environment that promotes compatibility across various devices and systems (Stern, 2018). So, while regular patents secure exclusive rights to a technology, which may be part of one's business strategy, SEPs are integral to fostering a collaborative ecosystem (Rossi, 2022). The primary goal of SEPs is not exclusivity, but widespread adoption and implementation of the patented technology.

Standardised technologies facilitate positive network effects such as interoperability, support economies of scale, reducing costs for both producers and consumers by standardising components and processes that can be produced in large volumes (Allen & Sriram, 2000; Stern, 2018). This drives innovation by establishing a common baseline from which new technologies and improvements can evolve, creating benefits for the whole ecosystem (Heiden et al., 2020). Furthermore, it enhances market expansion and improves the quality and reliability of technology products by ensuring that all adhering devices meet consistent, high-quality criteria (Blind, 2004).

Secondly, what sets regular patents apart from SEPs is the approach to licensing. While normal patent holders are ordinarily not under legal obligations to allow access to their inventions, SEP holders must commit to making their patented technologies available to any entity wishing to use the technology by established standards. Commonly referred to as a Fair, Reasonable and Non-Discriminatory (FRAND) licensing commitment, this contractual undertaking is made by technology owners during the development of standards

within an SDO. This aims to ensure that essential technologies are accessible, promoting broader adoption and integration into devices and services from the outset of their development.

Tsilikas (2016) highlights that the terms of FRAND licensing serve as a balanced compromise designed to protect the interests of both the innovators who develop the technologies and the manufacturers who implement them. This arrangement facilitates a collaborative ecosystem, fostering both competition and innovation. African stakeholders can also leverage this system to produce standard implementing devices that solve African urban settlement dilemmas. This creates a win-win situation for the innovators, the African SMEs, and the citizens who will benefit from an implemented IoT solution.

However, questions abound about what constitutes FRAND (Sidak, 2017), and challenges in SEP licensing issues are a significant hurdle (Caturla, 2023). The parties typically determine FRAND in good-faith bilateral licensing negotiations (Herranz & Tapia, 2018). While an in-depth discussion of FRAND licensing is beyond the scope of this article, what needs to be emphasised is that securing the ability of innovators in cellular standards to recoup their investments is critical to ensuring innovation. Implementers in Africa can also contribute to the innovation nexus through unencumbered access to patented technology from the very first day. Having a balanced and effective patent protection system and sound government policy regarding IP guarantees access to technology while innovation is also promoted.

A case study of Cape Town

Cape Town's smart city plan initiatives include public Wi-Fi hotspots; improving Internet access in libraries, closed-circuit television, with 560 cameras located throughout the city; the establishment of an open data portal and the introduction of a smart grid (Musakwa & Mokoena, 2017).

The government's commitment to smart city initiatives is evident through comprehensive projects to enhance sustainability and technological integration. These initiatives include advanced water

management systems introduced during the 2017 drought, where innovative techniques such as water-mist faucets and higher water tariffs were implemented to conserve water (van Dam, 2017). Additionally, to tackle energy shortages, Cape Town has installed solar panels on public buildings and developed smart metering systems to improve energy efficiency.

The transportation sector has also seen significant upgrades with implementation of the MyCiTi bus rapid transit system and the rapid rail link, which are pivotal in alleviating traffic congestion and promoting efficient urban mobility (CT Magazine, 2023). The introduction of e-services has further facilitated increased citizen engagement and accessibility to government services, demonstrating a forward-thinking approach to governance and public administration (Nair, 2020).

Oriakhogba (2021) provides a crucial analysis of South Africa's intellectual property (IP) policies through an analysis of the DABUS AI inventorship debacle. He criticised the Companies and Intellectual Property Commission's decision to award a Patent Cooperation Treaty to the AI inventor, describing it as a misstep in adhering to established IP laws and frameworks. He highlights how South Africa's IP policy aligns with constitutional mandates prioritising human and social development over technological tools, such as AI. These policies are designed to nurture a culture of innovation by supporting creators and inventors, thereby enhancing the competitiveness of South African industries. It considers that the patent system and technology should serve the people and not vice versa.

Nair et al. (2020) delve into the global movement towards smart cities, aiming to tackle urban challenges and bolster efficiency. Their study sheds light on South Africa's unique position, urging the country to embrace smart city initiatives to enhance competitiveness and overcome historical infrastructure obstacles (Nair et al., 2020). IoT technologies must be aligned with national priorities, promoting the government's ability to leverage technology for development. This approach can pave the way for significant growth and development in South Africa.

Discussion

Most African IP laws, largely shaped by post-TRIPS legislative processes, may not fully accommodate the unique needs of African smart cities, which are often built around local contexts, indigenous knowledge, and community-driven innovations (Ncube, 2023). These systems, such as bilateral agreements containing TRIPS-plus provisions, often emphasise stronger IP protection prioritising private ownership and global commercial interests (Mercurio, 2015; Shabalala, 2007). This may potentially stifle collaborative innovation and knowledge-sharing essential for developing smart cities in African contexts. The mismatch between Africa's socio-economic realities and international IP norms may hinder the ability of African innovators and governments to implement and localise smart city technologies effectively (Ogbodo, 2024; Adebola 2014).

The complexity and cost of navigating international IP systems often limit African countries' access to cutting-edge technologies necessary for smart city development (Blakeney & Mengistu, 2011). This unequal access exacerbates the digital divide, leaving African cities reliant on foreign technologies, which may not be adapted to local needs or promote inclusive development (Yonazi et al., 2012). To foster sustainable growth, it is imperative for African nations to advocate for an IP regime that supports open innovation models, public-private collaborations, and the protection of local knowledge, ensuring that African smart cities are not only technologically advanced, but also culturally and socially relevant (Drahos, 2005; Saint & Garber, 2018).

Africa's status as a net importer of standardised technology presents significant challenges, particularly regarding data privacy concerns. Privacy becomes a primary concern when the data collected could lead to linking or identifying an individual, mainly when gathered from numerous information sources (Lai et al., 2020). The dominance of technology by Chinese companies like Huawei and ZTE in implementing cellular standards across the continent is driven primarily by cost considerations and political motivations rather than the security of technology, patent quality, or superiority of the technology (Li, 2017; Wong, 2015). This situation is exacerbated by specific terms of Chinese loans under the Digital Silk Road Initiative, which often require African beneficiaries to

adopt Chinese technical standards and equipment (Kumar, 2024). This influence has led to perceptions of China as a 'new colonialist' in Africa, using digital technology to assert its socio-economic and political dominance (Chaudhury, 2021).

Chinese companies participate in developing information and communication technologies globally to increase China's capacity and influence in setting global technology standards (Agbebi, 2022). The strong market presence of Chinese companies, attributed to competitive pricing and, comprehensive technology solutions, as well as political strategies, contrasts with the slower active deployment of Western companies despite their numerous patents filed through the African Regional Intellectual Property Organisation (ARIPO) and the PCT process.

Teevan and Shiferaw (2022) emphasise Africa's need for proactive engagement in shaping global digital norms. They warn against the risks of the continent becoming a bystander in geopolitical contestations, potentially leaving it vulnerable. They suggest that Africa can achieve a \$180 billion digital economy by 2030, but omit any specific analysis of the role of 5G and mobile internet. 5G stands to transform African economies and societies, and a greater appreciation of these technical standards and how they can support innovation must be studied. African stakeholders should be attentive to standards development and seek to influence their deployment to be in line with African needs.

The control of digital data by Chinese companies, which have a deep understanding of African markets, holds substantial economic value. This control is a critical productive force that countries need to maintain competitive positions within global value chains (Hoffman, 2022). In the evolving landscape of 5G technology, firms such as Huawei, Nokia, Ericsson, and ZTE play pivotal roles in Kenya, South Africa, and Rwanda, not only in infrastructure deployment, but also as leaders in registration of IP rights, holding significant patents essential for 5G technologies (Liu, 2017; Nakai & Tanaka, 2010). However, installing Chinese digital surveillance instruments often lacks adequate legal safeguards, raising concerns about potential abuse and misuse. For instance, confidential data was reportedly diverted from the internet network of the African Union (AU) headquarters to Shanghai nightly from 2012 to 2017,

prompting the AU to acquire its servers and refuse Chinese configuration offers (Kumar, 2024).

Slavova and Okwechime (2016) lament the poor quality, unsustainability, and segregation of social services in Africa, highlighting challenges in education and healthcare delivery due to policy-operational splits, low autonomy, capacity, overcrowded classrooms, under-resourced hospitals, and unpaid public officials. Since 5G penetration is still at low levels in most parts of the developing world, operators must invest in upgrading their networks and establishing new 5G macro sites to support innovative use cases (Boston Consulting Group, 2021). Poor infrastructure and limited investments in human and infrastructural improvements can also be listed as hindrances to the full adoption of the smart city concept. More excellent connectivity presents an opportunity for Africa to accelerate its socio-economic development. However, this internet-triggered transformation is contingent upon laying the groundwork for robust legal, physical and social infrastructure, including widespread connectivity and a capable workforce (Traoré et al., 2022). Tugendhat (2020) argues that it is essential for African governments to adopt a tax regime similar to South Africa's, requiring foreign technology firms to commit to reinvesting a proportion of profits locally. Kenya and Africa possess substantial potential to integrate and enhance innovation and technology development while protecting and promoting goods, services, and works that are intensive in IP (Sihanya, 2018).

Fataar (2022) notes that South Africa needs a unified national strategy for smart cities; the current smart city projects need to be better coordinated, and there needs to be more collaboration between the private and public sectors in developing prosperous smart cities across the country. Despite the potential benefits of smart city technologies, Musakwa and Mokoena (2017) caution that local authorities' implementation of these technologies has sometimes led to undesirable outcomes due to poor planning. While smart city ICT deployments have improved governance, participation, and engagement, they argue that the primary focus should be addressing poverty, inequality, and poor living conditions (Musakwa & Mokoena, 2017).

Conclusion

The involvement of US/EU and Chinese companies in the standard-setting process and their extensive patent portfolios underline their strategic roles in the global market. Africa needs more participation in these fora. By influencing standards and holding key technologies, foreign firms shape the technological landscape and ensure a return on investment in R&D, which is crucial for continuous innovation in the sector. Calandro et al. (2014) note that Africa's involvement in international internet and cellular standards development has generally been minimal, with Kenya, Senegal, and Rwanda being notable exceptions. The author strongly recommends active and consistent participation in developing cellular standards to ensure that African stakeholders gain a voice and potentially benefit from revenues associated with patent royalties. Africa should also develop a long-term vision of striving for technological sovereignty. The continent must rise by taking more proactive steps towards developing and setting technical standards too.

Significant strides have been made in bridging the digital gap, particularly in providing basic 2G mobile cellular signal coverage, especially in rural areas. However, a substantial disparity persists between developed and developing nations concerning 3G and 4G cellular network availability (GSMA, 2023). In many developing countries, particularly rural regions, access to 4G and even 3G networks still needs to be improved (Okeleke & Stryjak, 2015). Mobility from 4G to 5G connectivity presents a considerable challenge for operators, particularly in areas with unreliable power supply, low population densities, and security concerns, where the return on investment is limited (GSMA, 2023). African concerted approaches are needed to address the challenges in a holistic manner.

Good IP systems that recognise the unique socio-economic conditions of each country can foster a conducive environment for technology growth (DAG, 2010). These legal frameworks, when properly calibrated, are crucial for encouraging innovation and attracting foreign investment in the telecommunications sector. However, the expansion of 5G technology faces hurdles, including the high costs of 5G-compatible devices, complex spectrum management, and substantial infrastructure investment requirements. Effective policy

measures, strategic partnerships, and regulatory frameworks will help African countries to leverage the potential of 5G technologies for economic development.

References

- Abdelkafi, N., Bekkers, R., Bolla, R., Rodriguez-Ascaso, A., & Wetterwald, M. (2021). *Understanding ICT standardisation: Principles and practice*. ETSI Volume 2.
- Adebola (2020) Mapping Africa's Complex Regimes: Towards an African Centred AfCFTA Intellectual Property, (IP), Protocol Social Science Research Network 2020 Scholarly Paper 3920541. <https://papers.ssrn.com/abstract=3920541>
- Agbebi, M. (2022). *China's digital Silk Road and Africa's technological future*.
- Allen, R. H., & Sriram, R. D. (2000). *The role of standards in innovation. Technological Forecasting and Social Change*, 64(2-3), 171-181.
- Allwinkle, S., & Cruickshank, P. (2011). *Creating smarter cities: An overview. Journal of Urban Technology*, 18(2). <https://www.tandfonline.com/doi/abs/10.1080/10630732.2011.601103>
- Angwenyi, V. (2017). Hold-up, Hold-out and F/RAND: The quest for balance. *Journal of Intellectual Property Law & Practice*, 12(12), 1012-1023.
- Ann, C. (2019). *Patent invalidation and legal certainty. In The Object and Purpose of Intellectual Property* (pp. 268-280). Edward Elgar Publishing.
- Bakici, T., Almirall, E., & Wareham, J. (2013). A smart city initiative: The case of Barcelona. *Journal of the Knowledge Economy*, 4(2), 135.
- Baffoe, G., Ahmad, S., & Bhandari, R. (2020). *The road to sustainable Kigali: A contextualised analysis of the challenges*. *Cities*, 105, 102838.
- Baron, J., & Gupta, K. (2018). Unpacking 3GPP standards. *Journal of Economics & Management Strategy*, 27(3), 433-461. <https://onlinelibrary.wiley.com/doi/abs/10.1111/jems.12258>
- Blakeney, M., & Mengistie, G. (2011) Intellectual property and economic development in sub-Saharan Africa. *The Journal of World Intellectual Property*, 14(3-4), 238-264.
- Bekkers, R., Verspagen, B., & Smits, J. (2002). Intellectual property rights and standardisation: The case of GSM.

- Telecommunications Policy, 26(3-4), 171-188. <https://www.sciencedirect.com/science/article/pii/S0308596102000071>
- Blind, K. (2004). *The economics of standards: Theory, evidence, policy*. Edward Elgar Publishing.
- Boldrin, M., & Levine, D. K. (2013). The case against patents. *Journal of Economic Perspectives*, 27(1), 3-22.
- Borghetti, J. S., Nikolic, I., & Petit, N. (2021). FRAND licensing levels under EU law. *European Competition Journal*, 17(2), 205-268.
- Boston Consulting Group. (2015). The mobile revolution - How mobile technologies drive a trillion-dollar impact.
- Burkhardt, P., & Naidoo, P. (2023). South Africa faces two more years of power cuts, Eskom says. Bloomberg Markets. <https://www.bloomberg.com/news/articles/2023-01-22/south-africa-faces-two-more-years-of-power-outages-eskom-says>
- Calandro, E., Gillwald, A., & Zingales, N. (2014). Mapping multi-stakeholderism in internet governance: Implications for Africa. Evidence for ICT Policy Action Discussion Paper, Research ICT Africa (RIA).
- Campbell, K., Diffley, J., Flanagan, B., Morelli, B., O'Neil, B., & Sideco, F. (2017). The 5G economy: How 5G technology will contribute to the global economy. *IHS Economics and IHS Technology*, 4(16), 1.
- Caturla, A. (2022). Licensing of Cellular Standards: Defining a Willing Licensee in FRAND Negotiations. *Geo. Mason L. Rev.*, 30, 497.
- Chaudhury, D. R. (2021). China reportedly investing \$8.43 bn in Africa as part of Digital Silk Road initiative. *Economic Times*, 15.
- Chui, K. T., Ordóñez de Pablos, P., Shen, C., Lytras, M. D., & Vasant, P. (2022). Towards Sustainable Smart City via Resilient Internet of Things. In F. Matos, P. M. Selig, & E. Henriqson (Eds.), *Resilience in a Digital Age: Global Challenges in Organisations and Society* (pp. 117-135). Springer International Publishing. https://doi.org/10.1007/978-3-030-85954-1_8
- Cissé, D. (2022). Chinese telecommunications companies in Africa: Alignment with African countries' interests in developing their ICT sector?
- Contreras, J. L. (2015). A brief history of FRAND: Analysing current debates in standard setting and antitrust through a historical lens. *Antitrust Law Journal*, 80(1), 39-120.
- Deloitte. (2014). Africa is ready to leapfrog the competition through smart cities technology. City Solution Leader Deloitte Africa.

- Dohler, M., Vilajosana, I., Vilajosana, X., & Llosa, J. (2011). Smart cities: An action plan. Barcelona Smart Cities Congress.
- Drahos, P. Developing Countries and International Intellectual Property Standard-Setting (2002) 5 JWIP 765.
<https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1747-1796.2002.tb00181.x>
- Echendu, A. J., & Okafor, P. C. C. (2021). Smart city technology: a potential solution to Africa's growing population and rapid urbanisation?. *Development Studies Research*, 8(1), 82-93.
- Erastus, L. R., Jere, N. R., & Shava, F. B. (2020, October). A secure smart city infrastructure framework for E-service delivery within a developing country: A case of Windhoek in Namibia. In *Proceedings of Fifth International Congress on Information and Communication Technology: ICICT 2020*, London, Volume 2 (pp. 454-469). Singapore: Springer Singapore.
- Ericsson. (2018). 5G will be the platform for tomorrow's smart cities. <https://www.ericsson.com/en/patents/articles/5g-will-be-the-platform-for-tomorrows-smart-cities>
- Ericsson. (2022). What do next wave 5G consumers want? Consumer Lab Report.
- Fataar, R. (2020). Unpacking smart city development in Cape Town and Johannesburg. In *Smart Cities paper series: Smart governance in South African cities*, South African Cities Network, pp. 29-36. [Online]. Available: www.sacities.net
- Freire, M., Lall, S., & Leipziger, D. (2014). Africa's urbanisation challenges and opportunities. Working Paper No. 7. Washington, DC: The Growth Dialogue.
- Giffinger, R., Fertner, C., Kramar, H., Kalasek, R., Pichler-Milanovic, N., & Meijers, E. (2007). Smart cities: Ranking of European medium-sized cities. Centre of Regional Science, Vienna UT. <https://www.smart-cities.eu/?cid=01&ver=4>
- Gilbert, R. J., & Newbery, D. M. (1982). Preemptive patenting and the persistence of monopoly. *The American Economic Review*, 514-526.
- Gold, E. R., Kaplan, W., Orbinski, J., Harland-Logan, S., & N-Marandi, S. (2010). Are patents impeding medical care and innovation? *PLoS Medicine*, 7(1), e1000208.
- GSMA. (2023). The state of mobile internet connectivity 2023: Sub-Saharan Africa key trends.

- Heiden, B., Padilla, J., & Peters, R. (2020). The value of standard essential patents and the level of licensing. <http://dx.doi.org/10.2139/ssrn.3717570>
- Herranz, L., & Tapia, C. (2018). Good and bad practices in FRAND licence negotiation. In *Resolving IP Disputes*, Zeiler/Zojer (eds), pp. 49-68.
- Hoen, E. T., Berger, J., Calmy, A., & Moon, S. (2011). Driving a decade of change: HIV/AIDS, patents and access to medicines for all. *Journal of the International AIDS Society*, 14, 1-12.
- Hoffman, S. (2022). *Securing the Foundation. Building the Physical Infrastructure of the Digital World*. Emily de La Bruyère/Doug Strub/Jonathon Marek: *China's Digital Ambitions: A Global Strategy to Supplant the Liberal Order*. Washington, DC: The National Bureau of Asian Research (NBR), 11-23.
- Huffman, T., & Vogel, C. (1991). The chronology of Great Zimbabwe. *The South African Archaeological Bulletin*, 61-70. <http://www.jstor.com/stable/3889086>
- Joel, N. Ecological sustainability in urban landscapes and smart cities, Case study Kigali city, Rwanda.
- Kantor, M., & Kantor, K. (1989). Exploring ancient ruins of Great Zimbabwe. *Los Angeles Times*. <https://www.latimes.com/archives/la-xpm-1989-10-15-tr-39-story.html>
- Kitch, E. W. (1977). The nature and function of the patent system. *The Journal of Law and Economics*, 20(2), 265-290.
- Koutonin, M. (2016). Lost cities #9: Racism and ruins – The plundering of Great Zimbabwe. *The Guardian*. <https://www.theguardian.com/cities/2016/aug/18/great-zimbabwe-medieval-lost-city-racism-ruins-plundering>
- Kuek, S. C., Paradi-Guilford, C., Fayomi, T., Imaizumi, S., Ipeirotis, P., Pina, P., & Singh, M. (2015). The global opportunity in online outsourcing. World Bank.
- Kumar, S. (2024). *China's Digital Expansionism in Africa and the US Counter-Strategies*. Insight on Africa, 09750878231217957.
- Lai, C. S., Jia, Y., Dong, Z., Wang, D., Tao, Y., Lai, Q. H., Wong, R. T. K., Zobia, A. F., Wu, R., & Lai, L. L. (2020). A review of technical standards for smart cities. *Clean Technologies*, 2(3), 290-310. <https://doi.org/10.3390/cleantechnol2030019>
- Lazaroïu, G. C., & Roscia, M. (2018). Smart Agent and IoT Towards Smart City. *Power Engineering: Advances and Challenges Part B: Electrical Power*, 397.
- Li, S. (2017). Contesting the Chinese model of telecommunication expansion in Africa. *Mediatized China-Africa Relations*:

- How Media Discourses Negotiate the Shifting of Global Order, 123-151.
- Liu, Y. (2017). The reverse direction strategy of overseas expansion with Chinese ICT equipment firms: The cases of Huawei and ZTE Co. Ltd. *經營論集*, 90, 1-14.
- Mboup, G., & Oyelaran-Oyeyinka, B. (2019). Relevance of smart economy in smart cities in Africa. *Smart economy in smart African cities: Sustainable, inclusive, resilient and prosperous*, 1-49.
- Mercurio, B. (2015) TRIPS-Plus Provisions in FTAs: Recent Trends. *Regional Trade Agreements and the WTO Legal System*. In Bartels & Ortino, eds., (pp. 215-237). Oxford University Press.
- Moraes, C. (2022). Rwanda launches masterplan for Kigali Innovation City. *Construct Africa*. <https://constructafrica.com/news/rwanda-launches-masterplan-kigali-innovation-city>
- Musakwa, W., & Mokoena, B. T. (2017). Smart cities in South Africa! A case of misplaced priorities? Conference: Computers in Urban Planning and Urban Management Adelaide Australia.
- Nair, K. K., Pillai, M. M., Lefophane, S., & Nair, H. D. (2020). Adaptation of smart cities in the South African Internet of Things context. In *2020 International Conference on Artificial Intelligence, Big Data, Computing and Data Communication Systems (icABCD)* (pp. 1-6). IEEE.
- Nakai, Y., & Tanaka, Y. (2010). Chinese company's IPR strategy: How Huawei Technologies succeeded in dominating overseas market by sideward-crawl crab strategy. In *PICMET 2010 TECHNOLOGY MANAGEMENT FOR GLOBAL ECONOMIC GROWTH* (pp. 1-5). IEEE.
- Ncube, C. B. (2016). Three centuries and counting: The Emergence and development of Intellectual Property Law in Africa. *The Oxford Handbook of Intellectual Property Law*.
- Ncube, C. B. (2023). Intellectual Property and the Public Interest in Africa. In *Intellectual Property Law in Africa - Harmonising Administration and Policy 2nd Edition* (pp.1-35).
- Ncube, C., Schonwetter, T., de Beer, J., & Oguamanam, C. (2019). A principled approach to intellectual property rights and innovation in the African continental free trade agreement. In *Inclusive Trade in Africa* (pp. 177-194). Routledge.
- Nibeza, S. (2015). Sustainable environment, a key of sustainable development a case study of Rwanda. *International Journal of Research in Economics and Social Sciences*, 5(6), 20-36.

- Ohlhausen, M. K. (2016). Patent rights in a climate of intellectual property rights skepticism. *Harvard Journal of Law & Technology*, 30(1), 103-152.
- Okeleke, K., & Stryjak, J. (2015). Building digital societies in Asia. GSM Association.
- Ogbodo, J (2024) TRIPS-Plus provisions in the economic partnership agreements with the EU: The CARIFORUM's experience and Lessons for West Africa. *The Journal of World Intellectual Property*, 27, 257-277.
<https://doi.org/10.1111/jwip.12299>OGBODO
- Oriakhogba, D. O. (2021). Dabus gains territory in South Africa and Australia: Revisiting the AI-inventorship question. *South African Journal of Intellectual Property Law*, 9(1), 87-108.
- Randall-Maclver, D. (1906). *Medieval Rhodesia*. London: Macmillan.
<https://archive.org/details/cu31924028618357/page/n21/mode/2up>
- Rival, O., & Gaur, A. (2021). ASEAN leading public policies for 5G deployment. BCG.
- Rossi, M. A. (2022). The advent of 5G and the non-discrimination principle. *Telecommunications Policy*, 46(4), 102279.
- Sidak, J. G. (2017). Fair and unfair discrimination in royalties for standard-essential patents encumbered by a FRAND or RAND commitment. *Criterion J. on Innovation*, 2, 301.
- Siegele, L. (2012). Mining the urban data: Cities will become smarter, but in different ways than many people expected. *The Economist*. <https://www.economist.com/news/2012/11/21/mining-the-urban-data>
- Shabalala, D. (2007). The European Approach to Intellectual Property in European Partnership Agreements with the African, Caribbean and Pacific Group of Countries. Center for International Environmental Law, <https://www.ciel.org/reports/the-european-approach-to-intellectual-property-in-european-partnership-agreements-with-the-african-caribbean-and-pacific-group-of-countries-shabalala-april-2007-2/>
- Shabalala, D. (2007). Towards a digital agenda for developing countries. Research Paper, 13.
- Sihanya, B. Integrating intellectual property, innovation, transfer of technology, and licensing in Kenya and Africa. In *WIPO-WTO Colloquium Papers: 2018 Africa Edition*.

- Slavova, M., & Okwechime, E. (2016). African smart cities strategies for agenda 2063. *Africa Journal of Management*, 2(2), 210-229.
- Smart Africa. (2017). Smart Africa Initiative. Retrieved from <https://smartafrica.org/>
- Steadman, I. (2013). Kenya breaks ground on its 'Silicon Savannah' city project. *Wired*. <https://www.wired.co.uk/article/kenya-silicon-savannah>
- Steenbruggen, J., Tranos, E., & Nijkamp, P. (2015). Data from mobile phone operators. *Telecommunications Policy*, 39, 336. <https://research.vu.nl/ws/files/1043428/2014-1.pdf>
- Stern, R. H. (2018). Who Should Own the Benefits of Standardisation and the Value It Creates? *Minn. J. Sci. & Tech.*, 19, 107.
- Teevan, C., & Shiferaw, L. T. (2022). Digital geopolitics in Africa: Moving from strategy to action.
- Traoré, B., Yawson, F., Floyd, R., & Mittal, V. (2022). Promoting innovation and digital transformation in the infrastructure technology in Africa, Policy Brief. ACET, 12 September 2022.
- Tsilikas, H., & Tapia, C. (2017). SMEs and standard essential patents: Licensing efficiently in the Internet of Things. *Les Nouvelles-Journal of the Licensing Executives Society*, 52(4).
- Tugendhat, H. (2020). How Huawei succeeds in Africa. Policy Brief, (41).
- United States Trade and Development Agency. (2022). Feasibility study for Kigali Innovation City. https://ustda.gov/wp-content/uploads/202111016A_RWA.pdf
- van Dam, D. (2017). Cape Town contends with worst drought in over a century. *CNN World*. <https://edition.cnn.com/2017/05/31/africa/cape-town-drought/index.html>
- WIPO Committee on Development and Intellectual Property (2010). Information on the Development Agenda Group Guiding Principles CDIP/5/9 Rev. https://www.wipo.int/edocs/mdocs/mdocs/en/cdip_5/cdip_5_9_rev.pdf
- Wong, A. (2015). China's telecommunications boom in Africa: Causes and consequences. Retrieved March 14, 2016.
- Yonazi E., Kelly, T., Halewood, N., & Blackman, C. (2012). The transformational use of Information and Communication Technologies in Africa. World Bank.
- Zanella, A., Bui, N., Castellani, A., Vangelista, L., & Zorzi, M. (2014). Internet of things for smart cities. *IEEE Internet of Things journal*, 1(1), 22-32.

ANALYSING THE ROLE OF INTELLECTUAL PROPERTY POLICY IN THE DEVELOPMENT OF ZIMBABWEAN SPORT

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Abstract

In 2018, Zimbabwe launched its National Intellectual Property Policy and Implementation Strategy (NIPPIS) as a means of fostering, strengthening, and raising awareness of intellectual property rights (IPRs) in various sectors of activity. It was seen as a landmark achievement that would contribute to advancements in innovation, which would ultimately contribute to socioeconomic growth for the country. The policy makes noted mentions of the need to promote IPRs in agriculture, industry, health, education, trade, culture, and tourism as key drivers for this growth. However, sport, a billion-dollar global industry, is not explicitly mentioned in the reading of the policy. This oversight may be seen as contributory to the inability of Zimbabwe's sporting sector to develop and become a major source of socioeconomic growth. Through policy analysis and desk research, this article analyses the role that IPRs play in Zimbabwe's sporting sector. The article concludes that the governing institutions of sport in Zimbabwe must use the NIPPIS contextually to establish structures that promote greater governance of IPRs within the sporting sector. This process may be spearheaded by the establishment of a special committee or board through which IPRs are governed and enforced specifically within the sporting sector.

Key Words

Development, Intellectual Property Rights, Policy, Sports, Zimbabwe

Introduction

Intellectual property rights (IPRs) are a driver for creativity and innovation in various aspects of human activity. They provide the impetus and platforms for social economic development, advancement, foreign direct investment, and knowledge transfer by turning ideas into income and employment opportunities. One area where IPRs are prominent on a global scale is the sector of sport. According to Sujita (2016) the link between sport and IPRs is deep rooted and well-established so much that sport cannot exist or flourish without adequate establishment, promotion and protection of IPRs. Without IPRs, the growth of sport through patented innovations such as sportswear and modern equipment would not have space to thrive. Furthermore, broadcast, image, licensing, and branding rights – critical financial pillars of sporting events – are essential for maintaining profitability and maximizing the social impact of sports.

In Zimbabwe, IPRs have become topical as seen through the creation and ratification of the National Intellectual Property Policy and Implementation Strategy 2018 – 2022 (NIPPIS) – the first of its kind in the country's history. This policy document's overall objective is "to ensure that the entire intellectual property (IP) governance framework leverages the country's IP potential for inclusive and sustainable economic growth and development (Government of Zimbabwe, 2018). To do this, great focus is placed on key sectors such as agriculture, health, education, arts and culture, tourism, and small-to-medium enterprises (Government of Zimbabwe, 2018), through which innovation is encouraged to solve various challenges to socioeconomic growth in the country.

While it is noted that these sectors are central to Zimbabwe's efforts to achieve middle income economic status, the oversight of sport as a potential area for IPRs consideration must be questioned. Sport is a multi-billion-dollar global industry with the potential to provide employment, contribute to tourism and even social movements such as combatting gender-based violence and early child marriages (Razvan et al., 2020). A study conducted in the United Kingdom determined that removing the local sports industry would result in the loss of £23.8 billion in income and close to a million jobs (Slane, 2013).

In Zimbabwe, a country where the love of sport is evident in football, netball, rugby, and cricket, the growth of sport as a contributor to socioeconomic growth has been lethargic (Nhamo & Magonde, 2014). This is despite calls for the utilisation of sport as a driver for development in less developed countries like Zimbabwe (Omondi, 2022; Goslin, 2002). It may be argued that a significant reason for this lethargy is the lack of promotion of IPRs within the sporting sector.

This article seeks to contribute to IPRs discourse within the Zimbabwean context by providing an analysis of the role of IPRs policy in the development of sport. Desk research and policy analysis are applied to assess the NIPPIS so as to identify challenges to the successful adoption of IPRs in the sporting sector and to determine how best the policy can be used to promote its development.

Statement of the Problem

While the establishment and ratification of the NIPPIS is a significant landmark for the socioeconomic development efforts of Zimbabwe, it fails to address IPRs within the context of sport – a multi-billion-dollar global industry with unrealised local potential. In 2022, the global sporting sector was valued at approximately US\$486 billion and is expected to surpass US\$700 billion by 2026 (Gough, 2023). Internationally, the economic growth of sport has been driven by substantial and exponential rates of innovation in training, nutrition, image rights, broadcasting, merchandise, and branding – all of which have turned sports into one of the fastest growing sectors in terms of revenue and social influence (Razvan et al., 2020; Zhang, 2018). Sport, as such, cannot become commercially viable or productive in any setting without IPRs, which create the conditions for innovation and growth (Rahman, 2021). Therefore, the Zimbabwe government's failure to develop context-specific IPRs solutions hinders efforts to promote sport and its socioeconomic potential.

Furthermore, there persists a paucity of academic discourse regarding the necessity of IPRs in the promotion of Zimbabwean sport. This not only makes it difficult to construct contextual solutions to address the slow growth of the sector, but also mitigates

the potential of sport to contribute to wider socioeconomic growth in areas such as health, education, and employment creation among others.

Research Questions

1. What is the role of IPRs in sport?
2. What are the biggest challenges to IPRs adoption in Zimbabwean sport?
3. How can the NIPPIS be used to promote the development of Zimbabwean sport?

Methodology

This article relies on a desk review of literature and policy analysis to analyse the role of IPRs on the development of Zimbabwean sport. Desk research is a form of research where secondary data is collected from published reports, journal articles, credible websites, and data from surveys and other studies (Mohajan, 2018). Policy analysis is a process through which a policy instruments or documents are analysed and critiqued to assess their strengths and weaknesses in addressing a particular social problem (Bardach, 2011). While desk research provides data regarding the landscape of IPRs and the Zimbabwean sports sector, policy analysis is systematically applied to analyse the NIPPIS and its role in the given context.

Empirical Literature Review

The topic of IPRs in sport is an established field. However, its assessment within the Zimbabwean sporting context is less extensive. This article views this as an opportunity to contribute to a critical body of knowledge, while addressing a developmental issue in sports governance and IPRs policy in Zimbabwe. The following literature review forms the basis for this contribution.

Defining Intellectual Property Rights

IPRs refer to a broad description of rights that protect an individual, company, or organisation's intangible assets (Kenton, 2022). According to the World Intellectual Property Organisation (WIPO, 2020), IP refers to "creations of the mind," which include technological inventions, artwork, designs, trademarks, logos, music, images, and brands. The basis for IPRs is that intangible assets should be afforded the same protection, under law, as physical property or tangible assets. This is to ensure that those who innovate and create are protected and motivated to continue to push the boundaries of knowledge and discovery in different sectors.

In today's knowledge-based economy, IPRs are critical for business and organisational success. As such, companies invest heavily in labour, skills development, and security to ensure that their knowledge is protected and not abused (Kenton, 2022). IPRs protect many different forms of intangible property through use of patents, copyrights, trademarks, franchises, and trade secrets (WIPO, 2020). This article briefly looks at patents, copyrights, and trademarks and their governance within the context of Zimbabwe.

An Overview of IPR in Sports

A patent is a form of IPRs, which grants exclusive rights for an inventor to decide how their invention may be used by others (WIPO, 2020). Within the context of sport, where technology continues to push the boundaries of innovation, patents are used to protect footwear, training equipment, and methods of fitness training. One example of a patented sporting product is the Fit-bit, a gadget that is used to track the performance of an athlete, their heart rate, and even the distance they cover over a given period (Sharma, 2020; Kalamadi, 2012). The creation of patents allows for technological companies to invest into sport. This creates opportunities for growth, employment, and advancement. In Zimbabwe, patents are protected by the Patents Act [Chapter 26:03].

Copyright is a legal term that describes the rights that individuals or creators have over their creations. This can include literary works, music, television broadcasts, computer programs, adverts, movies, and paintings (WIPO, 2020). Within the sporting sector, copyrights protect various aspects for both individuals and

sporting organisations that include team logos, promotions, events, the image rights of a player, and broadcasting rights for matches or games (Sharma, 2020). These can serve as formidable sources of revenue, which allow the owners of the IP to grow their businesses and use their intangible property for personal and community development. In Zimbabwe, copyrights are protected under the provisions of the Copyright and Neighbouring Rights Act [Chapter 26:05].

A trademark is a sign, symbol, or design that is used to distinguish the goods or services of a particular entity from those of others (WIPO, 2020). Much like patents and copyrights, a trademark may be owned by an individual, business organisation, or any legal entity (WIPO, 2020). Trademarks are used in sports by teams and organisations to protect the brand and identity of the team or individual. They are usually used on branded clothing such as jerseys, and also used on broadcasts and marketing promotions to elevate the popularity and recognition of the team or individual (Rahman, 2021). In this regard, the protection and proper use of the trademark is critical as association with questionable brands or campaigns can damage a sporting entity's ability to sell its products and its appeal to the general public. In Zimbabwe, trademarks are registered and protected by Trade Marks Act [Chapter 26:04].

While it is evident that there are laws in place that govern IPRs in Zimbabwe, the continued evolution of technology coupled with the impact of globalisation has challenged these statutes and their capacity to protect innovators. In response to this rapid evolution in IPRs, Zimbabwe's Ministry of Justice, Legal and Parliamentary Affairs launched the National Intellectual Property Policy and Implementation Strategy (NIPPIS) in 2018.

The Application of IPR to Football Development

Football is the world's most popular sport with an estimated 3.5 billion fans (Sport for Business, 2024). One of the most significant reasons for its popularity is the utilisation of IPR to develop and promote business structures around the sport. For example, the English Premier League (EPL) has signed various broadcasting deals, which include the use of trademarks, copyrights, and image rights. This has allowed the league to become one of the most lucrative football leagues in the world, reaching new markets for

business opportunities (Sport for Business, 2024). When the league was established in 1992, it signed its first broadcast deal with Sky Sports (Llywellyn, 2024). This gave the broadcaster exclusive rights to broadcast the league globally. It was valued at £304 million, and covered a period of five seasons (Llywellyn, 2024). In 2022, the league signed a new deal with the broadcaster (running from 2022/23 – 2024/25) for a reported £5 billion (Llywellyn, 2024). This exponential growth demonstrates the value placed on football by broadcasters as a revenue earner. This money is distributed and reinvested into the EPL's member clubs (based on number of television appearances and overall performance) in order to encourage further growth and competition through talent identification, talent development, and infrastructural development. In this regard, IPRs are being used to develop the quality of the league on and off the playing field.

More broadly, the Fédération Internationale de Football Association (FIFA) – football's global governing body, utilises IPR to protect its brands so as to secure critical revenue streams, enabling it to support various aspects of men's, women's and youth football on a global level (FIFA, 2024). In preparation of the 2026 World Cup to be held in the USA, Canada, and Mexico, FIFA, for example, developed the FIFA Intellectual Property Guidelines Version 2.0 in 2024 (FIFA, 2024). The guidelines “provide information and guidance to interested parties on FIFA's intellectual property and other commercial rights in relation to the 2026 world Cup, (FIFA, 2024). This serves as a critical reference for the event hosts, potential investors, and participating nations to ensure that they do not misuse the IP of FIFA, while also identifying opportunities for investment and promotion. Such policies are essential for the growth of the sport and they provide structured guidelines as to the correct utilisation of IP. It is this same structure that Zimbabwe has attempted to introduce through the NIPPIS on a wider scale.

An Overview of the Zimbabwe NIPPIS (Policy Analysis)

The NIPPIS is a historic advancement in Zimbabwe's IPRs promotion efforts (Government of Zimbabwe, 2018). It serves as an acknowledgement of the need to modernise the nation's approach to the promotion of innovation in line with the demands of an evolving global space. This is evidenced by the policy's proclamation of Zimbabwe needing to “transition towards a knowledge-based economy” to conform to global trends (Government of Zimbabwe,

2018). The establishment and ratification of the policy itself may also be seen as moves towards this transition as WIPO and its regional affiliate, the African Regional Intellectual Property Organisation (ARIPO) were key consultants in the formulation processes. These processes culminated in the policy's launch in 2018.

The policy is divided into 3 interconnected parts. The first part defines the policy and how IPRs will contribute to socioeconomic development efforts in Zimbabwe. Part 2 outlines the mission and vision of the strategy. It also looks at the sectorial application of the policy to key areas such as agriculture, medicine, and tourism among others. Lastly, Part 3 focuses on the implementation of the strategy, focusing on how to "facilitate the identification, promotion, acquisition, and commercialisation" of IPRs in Zimbabwe (Government of Zimbabwe, 2018).

As highlighted in Part One of the policy, one key facet of the NIPPIS which may need to be evaluated is the context of its application. During the time of its formulation and ultimate introduction, Zimbabwe's economic trajectory was guided by the Zimbabwe Agenda for Sustainable Socioeconomic Transformation (ZIM ASSET). The approach based the growth of Zimbabwe's economy on value addition and beneficiation as key pillars in the country's economic recovery efforts (Government of Zimbabwe, 2018). As such, great emphasis was placed on the growth of the economy through output in agriculture, small-to-medium enterprises (SMEs), manufacturing, and industry. This provides critical insights into the cognitive mind-sets and processes that went into identifying areas of IPRs promotion through the NIPPIS and also help in appreciating why sport may have been overlooked during this process.

In 2018, Zimbabwe went through a process of political transition which brought with it new perspectives on development and socioeconomic growth. This was seen in the implementation of Zimbabwe's latest economic blueprint the National Development Strategy (NDS Parts 1 and 2) supported by the Transitional Stabilisation Policy (TSP) in 2021, effectively replacing ZIM ASSET (Chingwere, 2023). While the economic blueprint may have changed, the general perception of sport may not have. The sector remains overlooked and under-appreciated as a potential contributor to overall development efforts. This is indicative of how government

views and approaches socioeconomic development in Zimbabwe and the role of sport in those approaches.

The policy goes on to highlight 6 key considerations that are to be used to guide the generation of contextual strategies towards the promotion of IP in agriculture, industry, arts and culture, and SMEs (Government of Zimbabwe, 2018). These 6 considerations are the enhancement of domestic capacities to create IP, the promotion of acquiring IP, the commercial utilisation of IP, the creation of reliable IP laws and enforcement mechanisms, the promotion of regional and global collaboration, and the support of industrial transformation through IP (Government of Zimbabwe, 2018). These considerations provide contextual guidelines that make the policy applicable to the prevailing climate of Zimbabwe. They also provide reference for strategic intervention within the identified sectors.

It is here that the NIPPIS may be applied to a sector like sport, which carries socioeconomic potential. Contextual structures may be established through the NIPPIS that encourage innovation within the sector. For example, one of the key considerations is the commercialisation of IP. In Zimbabwe, where piracy in sport is prevalent in areas such as counterfeit replica jerseys, sporting memorabilia, and to a growing extent the illegal streaming of live sporting events, the commercialisation and eventual enforcement of IPRs may allow sporting companies to earn considerable income from their IP. With greater cash flows, the sporting entities may be able to upgrade facilities, expand operations, attract greater investment, and contribute to employment within their physical areas of activity.

Overall, the NIPPIS is an important instrument in the efforts being made by government to revitalise and revamp the socioeconomic landscape of Zimbabwe. It provides key areas that need to be addressed to ensure IPRs are promoted and enforced towards the growth of the nation's knowledge economy. However, it may require amendment as its context of initial implementation no longer persists. Furthermore, its oversight of sport may require revisiting as a potential platform for development in Zimbabwe.

Tracing IPRs in the Zimbabwean Sports Landscape

In the Zimbabwean context, IPRs in sport can be better understood through the lens of international IP treaties and conventions. Zimbabwe is a member of the WIPO and its regional affiliate ARIPO. The Government of Zimbabwe has ratified several key treaties, including the WIPO Copyright Treaty (WCT), the Banjul Protocol on Marks, the Harare Protocol on Patents and Industrial Designs, the Berne Convention for the Protection of Literary and Artistic Works, the Paris Convention for the Protection of Industrial Property, the Madrid Agreement and Protocol on Trademarks, and the Patent Cooperation Treaty (European Commission, 2022; WIPO, 2019a). These treaties provide a comprehensive framework for protecting IP across various sectors by addressing copyrights, trademarks, and industrial designs, which are crucial for the commercialisation of the local sports industry. Given that the Government of Zimbabwe has undertaken the necessary groundwork by ratifying these international instruments, there is a strong case for the inclusion of sport within the NIPPIS. This would ensure that the country leverages global best practices, while fostering policy coherence across sectors, thereby unlocking the potential of IP in sports.

With a robust IPRs system, sports entities and businesses are able to finance operations and events that can contribute to the development of the industry (WIPO, 2023). This in turn can aid in developing the economic value of sport. While IPRs are prevalent within the Zimbabwean sports landscape, there is arguably little awareness and enforcement of their tenets within the sector. This limits the potential impact of IPRs as a source of innovation and development.

IPRs could be used within the Zimbabwean sports sector by National Sports Associations (NSAs) and event organisers to create high-quality events that attract premier athletes and audiences (WIPO, 2019b). IPRs would be used in this regard to protect appealing designs, trademarks, and mascots, thus creating commercial value. In Zimbabwe, cricket may be the best example of a sport that has embraced IPRs and utilised it to create economic value through the hosting of premier events such as World Cup Qualifiers (Chikamhi, 2023). This may be indicative of the commercial potential of the sport to bring in revenue, while also contributing to development.

It is, however, worth noting that the ability (or inability) of NSAs to embrace IPRs is greatly dependent on the environment within which these associations operate. Zimbabwe's economic instability makes it more challenging for NSAs, including Zimbabwe Cricket (ZC), to prioritise IPRs as a source of income. In the case of the country's most popular sport, football, which is governed by the Zimbabwe Football Association (ZIFA), there have been multiple governance challenges, which have led to regional and international sanctions that prohibited its teams' participation in continental and international competition (Matiashe, 2023; Munhende, 2022). These challenges, including limited capacity and awareness of the potential for IPRs, have stifled the sport's growth in the country leading to poor attendance at local matches and poor revenue streams in terms of broadcasting and imaging rights for teams and players, respectively (Mbele, 2022; Chigandiwa, 2022).

The vast majority of sports in Zimbabwe are also overseen by poorly-funded and poorly-equipped NSAs, most of whom are voluntary organisations (Nhamo & Muswazi, 2013). This lack of financial and human capital significantly restricts the capacity of NSAs to enforce their IPRs and to fully benefit from those rights. This can be seen in the rampant levels of piracy that persist in the sector, as counterfeit merchandise such as replica jerseys and team flags can be found on street corners and unlicensed shops. In other parts of the globe, merchandising in sports alone, is a billion-dollar business. Manchester United's current 10-year deal with Adidas, for example, is estimated to be worth £1.5 billion in sales (Wilson, 2014). Without adequate provisions for the protection of IPRs for both Manchester United and Adidas, such revenue would not be attainable. By way of contrast, one of Zimbabwe's most popular football clubs, Dynamos FC, has a purported local fan base in the millions yet they have failed to capitalise on their popularity through merchandise sales (Mangenje, 2023). The club is often facing financial challenges to the extent of failing to pay their players' wages in some instances (Manyepo, 2022). This is indicative of the need for greater formalisation of Zimbabwe's sporting sector driven by financial investment, human resource development, and greater emphasis on the need to protect IPRs by sporting entities and designated law enforcement agencies.

The trickle-down effects of this formalisation process could be felt throughout Zimbabwe's sports landscape and the economy as a whole. A high-quality sporting product can lead to the selling of broadcast rights of local competitions on global platforms such as AppleTV+, Disney+, SuperSport, BBC, or Amazon Prime among many others. With more streaming platforms emerging and looking for quality content, the opportunities for growth in sport do exist (Jarvis et al., 2022). Furthermore, enhanced IPRs in sport can benefit the manufacturing sector (which used to be one of Zimbabwe's most vibrant sectors), by promoting the development of new technologies and materials, that can produce innovative and high-quality sporting products (Wainwright, 2017). This also contributes to employment creation and economic development, which are critical to Zimbabwe's socioeconomic development efforts as outlined in the NIPPIS and NDS1.

Research Findings and Discussion

While the advent of the NIPPIS was a welcome development to Zimbabwe's efforts of promoting economic growth based on knowledge and innovation, the literature review above demonstrates that there is a lack of discourse pertaining to its application to sport within the country. Furthermore, there is a lack of literature that contextualises the policy within the new socioeconomic development strategy of the current government of Zimbabwe. This lack of analysis may limit the applicability and adaptability of the policy within this new environment. It may also limit the impact of the policy with regard to sport, a sector in critical need of greater research within the scope of IPRs.

Based on the review of literature and the analysis of the NIPPIS above, this article presents the following as findings that demonstrate the potential role of IPRs within the context of Zimbabwe in line with the study's research questions.

The Role of IPRs in Zimbabwean Sport

IPRs seek to protect the rights of innovators. Within the sporting sector of Zimbabwe, a lack of innovation is akin to a lack of structures that protect and encourage innovation. Therefore, the most significant benefit or role that IPRs can play in the sporting sector

of Zimbabwe is the establishment of structures that encourage the creation of solutions to some of Zimbabwe's sporting challenges. As stated above, IPRs come in various forms. The promotion of trademarks, image rights, copyrights, and broadcasting rights creates avenues for innovators to advance sport while also allowing athletes and sporting organisation an opportunity to benefit from their IP.

IPRs also create formality within the sporting structures as organisations and individuals who deal with IPRs must ensure that they adhere to set standards and stipulations. This encourages stakeholders to abide by systems of checks and balances through which various players can hold each other accountable, while also motivating each other to become more innovative. It might be worthwhile for the Sports and Recreation Commission (SRC) as the governing body of Zimbabwean sports to partner with WIPO, ARIPO, and the Zimbabwe Intellectual Property Office (ZIPO) to create an organisation or board specifically committed to the development of IPRs within the sporting sector. Such commitment may be the forerunner for encouraging innovation while also creating accountability.

Another key role that IPRs may play in the sporting sector of Zimbabwe is the encouragement of investment in sport. The establishment of structures that are transparent, clearly defined, and easily interpreted fosters trust in organisations – both locally and internationally. As a result of greater trust and confidence, the prospects of financial investment into the sector greatly improve. Zimbabwe's sporting sector is significantly hampered by poor governance, which has the ripple effect of scaring away investment into the sector. Without investment, athletes are encouraged to seek better prospects abroad, thus further weakening the sporting products available in Zimbabwe. Enhanced IPRs can contribute to the development of sporting structures in a way that encourages more funding into the sector, thus enhancing the quality of products both on and off the playing field.

However, given the potential of IPRs to enhance the quality of sport in Zimbabwe, there is also need to address the challenges that are hindering its successful implementation and enforcement.

Challenges to IPRs Adoption in Zimbabwean Sport

1. Political Will

The most significant challenge to IPRs adoption and enforcement in Zimbabwean sport is the apparent lack of political will. The NSAs must take an aggressive stance in the promotion of IPRs within the sector. While this also correlates with a lack of capacity (both financially and skills-based) there is need for a mindset shift regarding the governance of IPRs in sport. The SRC may take the lead in this regard by establishing a structure, such as the proposed IPRs sports board, which oversees the administration of intellectual property in the sector. Extensive training in IPRs is also required for all NSAs including the SRC in order to ensure that Zimbabwe adheres to international statutes and laws.

2. Poor Enforcement of Existing Laws

According to the European Union (2023):

An efficient and effectively enforced intellectual property infrastructure is necessary to ensure the stimulation of investment in innovation and to avoid commercial-scale intellectual property rights infringements that result in economic harm.

For the single market European Union, member states are bound by law to the Directive on the Enforcement of Intellectual Property Rights, which was ratified in 2004. The Directive also places great emphasis on the need for member states to create appropriate punitive measures for any and all infractions.

Within the Zimbabwean context, it has been established that there is a framework through which IPRs exist. The NIPPIS provides a historical blueprint through which IPRs may be implemented in various contexts, including sports to ensure that the rights of innovators are protected. However, prior to the NIPPIS, there were already laws in place that sought to protect IPRs. These include the Copyright and

Neighbouring Rights Act [Chapter 26:05] and the Trade Marks Act [Chapter 26:04] outlined above. As such, while the establishment of laws and regulations is important, there is a need to ensure that the existing statutes are enforced and protected. They may also require a review of current enforcement mechanisms and agencies and their capacity to guard against piracy and infringement of IPRs in various sectors, including sports. Without such reviews, the contextual application of the NIPPIS to the sporting context may not be effective.

3. Unstable Economic Conditions

Maskus (2001) highlights the significance of informal sectors in developing economies and how these environments encourage the production of counterfeit products such as cosmetic products, music, mobile devices, sporting goods, and replica jerseys. In addition to poor enforcement of IPRs, the persistence of informal (or parallel) markets is a symptom of economic instability, as individuals resort to illegal activities that infringe on IPRs for survival. Maskus (2001) adds that there may be a need to shift the focus of labour practices within countries like Zimbabwe to promote greater economic activity that is in line with IPRs and greater economic development strategies. "These workers must find alternative employment as stronger standards are enforced", (Maskus, 2001). This comment demonstrates that while the economic foundation is critical to the promotion of IPRs within sport, there is a need for a continued effort towards enforcing standards and policies to ensure that maximum benefit is derived from compliance. As such, the interconnectivity and multi-layered nature of IPRs enforcement and promotion is demonstrated.

4. Lack of NSA IP Knowledge and Capacity

There is need to review the capacity of NSAs with regard to their knowledge of IPRs as well as their capacity to implement, monitor, and enforce IPRs throughout their organisation and their members. For a sport like football, which is overseen by ZIFA in Zimbabwe, IPRs have the potential to generate revenue through merchandising and broadcast rights of its various leagues. As mentioned above, however, the various governance issues faced by

NSAs in Zimbabwe drastically limit their ability to implement and enforce such regulations. As a result, counterfeit products are regularly sold and distributed throughout the country at the expense of football clubs and innovators of sporting products, such as training equipment and methods. Moreover, the lack of formality within NSAs, which are generally voluntary-based organisations, means that there may be a lack of knowledge and capacity to implement IPRs into the governance structures of the organisation.

5. Lack of Continuity

Finally, though the NIPPIS is a critical component of IP in Zimbabwe, the policy has not been updated or revamped since the lapse of its initial duration, 2018 - 2022. As the global landscape of technology and approaches to business continue to evolve, the lack of a contemporary IP policy may compromise efforts to protect innovators, NSAs, and other institutions. This lack of continuity may be linked to the challenges of political will and the lack of IP knowledge, which may mitigate efforts to efficiently amend and update the policy and meet the demands of the prevailing context. A critical discourse around the effectiveness of the first edition of the NIPPIS, which may identify strengths and weaknesses is, therefore, needed to promote the development of IP policy in Zimbabwe.

The Utilisation of the NIPPIS to Develop Zimbabwean Sport

The NIPPIS provides a framework through which IPRs may be advanced in various sectors of the Zimbabwean economy. The application of the strategy to the sporting sector requires a contextual appreciation of the IPRs challenges within the sector, which have been outlined above. An appreciation of these challenges allows for the utilisation of the NIPPIS as a guiding framework through which sporting structures can be developed and innovation can be promoted.

For the various sectors highlighted within the policy, like Agriculture (Section 2.4.1), there are key issues that are seen as playing a central role in the development of IPRs and the sector as

a whole. These are geographical indications, plant breeding rights, indigenous knowledge systems, and biodiversity. The policy indicates that in order to develop IPRs within the agricultural sector, there is need to enhance structures and promote innovation within these key areas. A similar approach may be applied to the sporting sector where “key results areas” may be identified. Based on the assessment of Zimbabwe’s sporting sector above, these areas may be (i) the promotion of merchandising rights and enforcement, (ii) the promotion of broadcasting rights, and (iii) innovation in sports science and training. This may serve as the basis for the contextualisation of the NIPPIS to the Zimbabwean sports sector.

The promotion of merchandising rights and their enforcement is related to the licensed and authorised production of sporting gear, replica kits, and team regalia that can be sold by clubs and sporting organisations in order to make a profit. This also relates to the promotion and enforcement of trademarks and copyrights for rights holders. With regard to the promotion of broadcasting rights, Zimbabwe recently launched two new television stations (ZTN Prime and 3kTV), which offer opportunities for live broadcasting of sporting events (Daily News, 2022). Such rights may allow for clubs and leagues to generate regular income that can be used to further develop their respective sports. With regard to the environment, Section 2.4.5 of the NIPPIS outlines the need to promote adherence to the Nagoya Protocol and the Convention of Biodiversity (CBD) as keys to the growth of IPRs and the sector as a whole. This can also be contextualised within the sporting sector where policies like the Olympic Charter can also serve to enhance the governance structures for sport. With greater governance structures, the landscape for IPRs may also benefit through systematic implementation and enforcement.

In Section 3.4.1, the NIPPIS indicates that there is a need to raise awareness of IPRs for various stakeholders, including the general public, in order to enhance IPRs adoption and enforcement. As has been established, there is a lack of knowledge and capacity with regard to IPRs within the sporting sector. This must also extend to supporters of clubs and various stakeholder groups such as retail outlets, to ensure that the message of IPRs resonates within their business operations and personal lives. Similarly, Section 3.4.2 echoes the need for greater IPRs literacy and competency by highlighting the general lack of expertise regarding IP throughout Zimbabwe’s

various sectors of activity. This includes “the mainstreaming of the IP profession in Zimbabwe by designing and integrating into the job offers of different types of domestic institutions the positions of IPRs experts” (Government of Zimbabwe, 2018). Sporting institutions may create a position of IPRs Officer or may assign an individual who is capacitated with essential skills to ensure that each organisation recognises IP and its statutes. Such awareness programs and capacitation efforts within the sporting sector may be funded by the government as indicated in Section 3.4.4 of the NIPPIS.

Conclusions

This article has provided an analysis of the role of IP policy on the development of Zimbabwean sport. With Zimbabwe’s landmark implementation of the NIPPIS, the country has sought to revamp and reemphasise the need for greater enforcement of IPRs in various sectors of economic activity. However, the policy’s oversight of sport as an area of investment with regard to the promotion of IPRs may be symptomatic of the sector’s inability to develop and contribute to greater economic objectives.

This article, therefore, outlined the role of IPRs in sport, paying specific attention to how IPRs may be used to create formality and traceable structures within the sector. Various challenges to the adoption of IPRs within the sector were also highlighted including the lack of political will, the poor enforcement of existing laws, the instability of the Zimbabwean economy, and the lack of IPRs knowledge within national sports associations and governing bodies. The article further assessed the utilisation of the NIPPIS as a guiding tool towards the development of sport within Zimbabwe.

In conclusion, it was recommended that the SRC and its various key stakeholders, including the NSAs seek to establish a special committee or board through which IPRs are promoted, governed, and enforced specifically within the sporting sector. Guided by the NIPPIS and other supporting legislation, the board would seek to enhance the sporting environment by creating structures that attract innovation and ingenuity. Moreover, there may be need to reassess the NIPPIS within the prevailing economic blueprint of the NDS 1

to ensure that its contextualisation within the sport sector resonates with the nation's development trajectory.

References

- Bardach, E. (2011). *A Practical Guide for Policy Analysis: The Eightfold Path to More Effective Problem Solving*, 4th Edition. Berkley, CA: University of California
- Chigandiwa, T. (2022, 13 April). Mapeza blames low turnout on 'poor quality of football' in Zimbabwe, *Nehanda Radio*, Retrieved from <https://nehandaradio.com/2022/04/13/mapeza-blames-low-turnout-on-poor-quality-of-football-in-zimbabwe/>
- Chikamhi, E. (2023, 6 April). Sri Lanka, West Indies to headline World Cup Qualifier in Zimbabwe, *The Herald*, Retrieved from <https://www.herald.co.zw/sri-lanka-west-indies-to-headline-world-cup-qualifier-in-zimbabwe/>
- Chingwere, M. (2023, 15 March). NDS1 points to a bright future, *The Herald*, Retrieved from <https://www.herald.co.zw/nds1-points-to-bright-future/>
- Daily News* (2022, 28 February). History made as 3Ktv goes on air... new, 24/7 free-to-air station also available on DSTV's Channel 293, Retrieved from <https://dailynews.co.zw/history-made-as-3ktv-goes-on-air-new-24-7-free-to-air-station-also-available-on-dstvs-channel-293/>
- European Commission (2022). Africa IP Help Desk – Zimbabwe, Retrieved from https://intellectual-property-helpdesk.ec.europa.eu/system/files/2022-03/Zimbabwe_final.pdf
- European Commission (2023). Enforcement of intellectual property rights, Retrieved from https://single-market-economy.ec.europa.eu/industry/strategy/intellectual-property/enforcement-intellectual-property-rights_en
- FIFA (2024). FIFA Intellectual Property Guidelines, Version 2.0
- Goslin, A. (2002). Challenges for sport-for-all under the socio-economic conditions of South Africa, *African Journal for Physical Activity and Health Sciences*, 8(1)
- Government of Zimbabwe. (2013). National Intellectual Property Policy and Implementation Strategy
- Gough, C. (2023, 02 June). Sports industry revenue worldwide in 2021, with a forecast for 2022 and 2026 (in billion U.S.

- dollars), *Statista*, Retrieved from <https://www.statista.com/statistics/370560/worldwide-sports-market-revenue/>
- Jarvis, D., Lee, P., Giorgio, P. & Westcott, K. (2022, 9 September). Live sports: The next arena for the streaming wars, *Deloitte*, Retrieved from <https://www2.deloitte.com/us/en/insights/industry/technology/technology-media-and-telecom-predictions/2023/live-sports-streaming-wars.html>
- Kalamadi, S. (2012). Intellectual Property and the Business of Sports Management, *Journal of Intellectual Property Rights*, 17, 437 – 442
- Kenton, W. (2022, July 22). What Is Intellectual Property, and What Are Some Types? *Investopedia*, Retrieved from <https://www.investopedia.com/terms/i/intellectualproperty.asp>
- Llywellyn, M. (2024, 20 February). Inside the English Premier League's latest media rights deal: What does it tell us about the current state of play of the market? *Squire Patton Boggs*, Retrieved from <https://www.sports.legal/2024/02/inside-the-english-premier-leagues-latest-media-rights-deal-what-does-it-tell-us-about-the-current-state-of-play-of-the-market/>
- Matiashe, S. (2023, 5 January). Fifa ban shatters dreams of Zimbabwe's women soccer players, *News24*, Retrieved from <https://www.news24.com/citypress/sport/fifa-ban-shatters-dreams-of-zimbabwes-women-soccer-players-20230105>
- Mangenje, L. (2023, 09 April). Editorial: Is Highlanders the most supported team in Zimbabwe? *Soccer24*, Retrieved from <https://www.soccer24.co.zw/2023/04/09/editorial-is-highlanders-the-most-supported-team-in-zimbabwe/>
- Manyepo, T. (2022, 21 September). Huge Windfall for DeMbare Players, *The Herald*, Retrieved from <https://www.herald.co.zw/huge-windfall-for-dembare-players/>
- Maskus, K.E. (2001). Intellectual Property Challenges for Developing Countries: An Economic Perspective, *University of Illinois Law Review*, 2001, 457 - 474
- Mbele, F. (2022, 19 March). PSL games hit by poor attendance, *New Zimbabwe*, Retrieved from <https://www.newsday.co.zw/2022/03/psl-games-hit-by-poor-attendance>
- Munhende, L. (2022, 24 February). FIFA Bans Zimbabwe over Government Interference, *New Zimbabwe*, Retrieved from <https://www.newzimbabwe.com/fifa-bans-zimbabwe-over-government-interference/>

- Mohajan, H.K. (2018). Qualitative Research Methodology in Social Sciences and Related Subjects, *Journal of Economic Development, Environment and People*, 7(1), 23 – 48
- Nhamo E. & Magonde, S. (2014). The founding principles of Sport for Development programmes in Zimbabwe and challenges impeding effective programme implementation, *Journal of Sports and Physical Education*, 1(5), 23 – 28
- Nhamo E. & Muswazi, M.T. (2013). The efficacy of strategic management processes: An empirical study of National Sports Associations of Zimbabwe, *Journal of Business and Management*, 11(6), 1 – 12
- Omondi, H. (2022, 28 July). Owning the Goal: How sport can be an engine for massive economic growth in Africa, Organisation for Economic Co-operation and Development, Retrieved from <https://www.oecd-forum.org/posts/owning-the-goal-how-sport-can-be-an-engine-for-massive-economic-growth-in-africa>
- Rahman, F. (2021). Analysing the Impact and Role of Intellectual Property Rights in Sports, (Book Chapter) in *Law relating to Sports in India*, Taxmann Publication
- Razvan, B.M.C., Bogdani, B.G., Roxana, D. & Catline, P.M. (2020). The Contribution of Sport to Economic and Social Development, *Studia Ubb Educatio Artis Gymn.*, 65(1), 27 – 38
- Sharma, P. (2020). Intellectual Property Rights in Sports, *International Journal of Creative Research Thoughts*, 8(3), 2580 – 2586
- Slane, R., (2013, 3 May). The Economic Impact of the Sports Sector, *Economic Modelling Specialists International*, Retrieved from <https://www.economicmodelling.co.uk/2013/05/03/the-economic-impact-of-the-sports-sector/>
- Sport for Business, (2024, 17 July). The World's Most Watched Sports, Retrieved from <https://sportforbusiness.com/the-worlds-most-watched-sports/>
- Sujith, A. (2016). Sports and Intellectual Property Rights – An Overview On The Indian Standards, *Journal Of Legal Studies And Research*, 2(5),
- Wainwright, O. (2017, 15 June). Stadiums of the Future: A Revolution for the Fan Experience in Sport, *The Guardian*, Retrieved from <https://www.theguardian.com/sports/2017/jun/15/stadiums-future-holograms-drones-fan-experience>
- Wilson, B. (2014, 14 July). Manchester United and Adidas in £750m Deal Over 10 Years, *BBC News*, Retrieved from <http://www.bbc.co.uk/news/business-28282444>

- WIPO (2019a). Contracting Parties or Signatories to Treaties Administered by WIPO, *World Intellectual Property Organisation*, Retrieved from https://www.wipo.int/edocs/pubdocs/en/wipo_pub_423.pdf
- WIPO (2019). Intellectual Property and Sports: Tracing the Connections, *World Intellectual Property Organisation*, Retrieved from https://www.wipo.int/ip-outreach/en/ipday/2019/ip_sports.html
- WIPO (2020). What is Intellectual Property? *World Intellectual Property Organisation*, Retrieved from https://www.wipo.int/edocs/pubdocs/en/wipo_pub_450_2020.pdf
- WIPO (2023, 26 April). World Intellectual Property Day, *World Intellectual Property Organisation*, Retrieved from <https://www.wipo.int/ip-outreach/en/ipday/>
- Zhang, J.J., Kim, E., Marstromartino, B., Qian, T.Y., Nauright, J. (2018). The sport industry in growing economies: critical issues and challenges, *International Journal of Sports Marketing and Sponsorship*, 19(2), 110-126

THE USE OF ALTERNATIVE DISPUTE RESOLUTION MECHANISM FOR RESOLUTION OF INTELLECTUAL PROPERTY DISPUTES IN AFRICA

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Abstract

In the field of intellectual property (IP), disputes arise when an infringement of a right occurs at all levels, including but not limited to acquisition, use, management and regulations of IP. The advent of the African Continental Free Trade Area (AFCFTA) and the multiplication of international IP transactions will no doubt, increase the number of IP disputes in Africa. Disputes in IP have the potential to retard the growth of businesses. Therefore, there is need to institutionalise effective and efficient IP dispute resolution mechanism in Africa. One of the most effective ways this can be achieved is through the instrumentality of alternative dispute resolution (ADR) system. ADR is a panoply of various dispute resolution mechanisms sharing the same goal of achieving fair, just and amicable resolution of disputes. This article adopted the doctrinal research approach and examined various legal instruments from selected African countries, which recognise and entrench arbitration and mediation as means of resolving disputes and also imposed mandatory obligation on disputants to first resort to ADR before conventional court as a last option. The paper found that the ADR mechanism through the means of arbitration and mediation saves time, engenders party autonomy, confidentiality and enhances friendship and a conducive business environment than the conventional court approach. The paper however, concludes inter alia, that in order for African countries to realise the objectives of AFCFTA with respect to IP, a continental-wide framework should be designed specifically for the resolution of IP disputes through arbitration and mediation.

Keywords

Intellectual Property, Dispute-Resolution, Arbitration, Mediation, Africa.

Introduction

The African Continental Free Trade Area (AFCFTA), the world largest free trade area (EAC, 2023) in view of the number of participating countries, is one of the flagship projects of the African Union (AU)'s '2063 Agenda', which advocated for a high standard of living for Africans and transformation of African economies underpinned by science, technology and innovation. AFCFTA is an ambitious trade agreement which came into force on the May 30th, 2019. The major objective of this important agreement is elimination of trade barriers in Africa and to significantly boost intra-Africa trade. All AU Member States have signed the Agreement as at March 2023 with 46 State Parties as at February, 2023 (Tralac, 2023). The practical and effective implementation of the AFCFTA Agreement is believed to have potential to foster industrialisation, job creation, and investment, thus enhancing the competitiveness of Africa in the medium to long-term (AFCFTA, 2023). Article 4 (c) and (f) of the AFCFTA Agreement provides for the specific objectives that State Parties shall cooperate on investment, intellectual property rights and competition policy; and establish a mechanism for the settlement of disputes concerning their rights and obligations.

The laudable objectives of AFCFTA Agreement would indeed, witness the exponential growth and development of commercial activities in Africa, particularly in the area of intellectual property (IP) and this will in turn lead to an increase in commercial disputes in Africa. Commercial disputes have the potential to retard the growth of businesses including IP. Disputes in IP such as copyright, patent, design and trademark are complex and often require timely intervention with specific tailored resolutions. This is where the alternative dispute resolution (ADR) mechanism for the amicable settlement of IP disputes in Africa becomes apt.

The purpose of the ADR, as in the case of the WIPO Arbitration and Mediation, is to avoid the complexities of using national laws for disputes that arise in the context of the AFCFTA. In view of the need to institutionalise effective and efficient IP dispute resolution mechanisms in conformity with the objective of AFCFTA, this work appreciates ADR with particular reference to arbitration and mediation as effective tools for IP dispute resolution in Africa.

Intellectual Property Disputes

Disputes are almost inevitable in commercial transactions. IP disputes arise when an infringement or violation of a right occurred, (Dunham, 2011) from the acquisition, use, management and regulations to enforcement of IP rights. Proprietors of IP are usually conferred with certain exclusive rights by the State to prevent third parties from exploiting their invention, a trademark, or a literary work without authorisation. Therefore, disputes could arise when third parties make use of IP without the owner's consent. For example, Article 9 (1) of the Berne Convention confers exclusive copyright of any work on the author. Reproduction without authorisation is therefore, contrary to the exclusive right of the IP owner and may result to dispute. However, where consent has been expressly granted, disputes may still arise with respect to the scope of such consent as in the case of licensing contracts. For instance, in the case of copyright, an agreement for distribution of a motion picture between the film distribution company and a streaming platform may breed dispute. Disputes could also be in relation to post production and joint productions.

Indeed, there could also be disputes before intellectual property rights (IPRs) are acquired. For example, opposition proceedings may be instituted during the process of trademark/patent application by the Opponent against the Applicant. Similarly, after a successful registration process of IP, disputes can arise in which the validity of IPRs can be challenged through the instrumentality of invalidation proceedings. Another fertile source of dispute is when IPRs are licensed, franchised or sold. In addition, IP issues could arise in disputes between proprietors and the State when the latter engages in acts of regulation that impacts the exercise of IPRs (Marsoof, 2021). Given the need for timely resolution of IP disputes, ADR has emerged as an effective, comprehensive system for addressing these conflicts.

Alternative Dispute Resolution

ADR is a scheme of various dispute resolution techniques sharing the same goal-that is, achieving fair, just, and amicable settlement.

ADR is not the outcome of any juristic philosophy, rather it was necessitated by the growth of commercial litigation needing speedy resolution (Jillani, 2012). In any event, ADR comprises various approaches for resolving disputes in a non-confrontation way, ranging from negotiation between the two parties, a multi-party negotiation, through mediation, consensus binding to arbitration and adjudication (Shamir, 2022). ADR is indeed a broad concept. However, this article will restrict itself to arbitration and mediation as a critical mechanism for IP dispute resolution within the AFCFTA framework.

The Concept of Arbitration

Arbitration is a mechanism for the resolution of dispute which takes place in private, pursuant to an agreement between two or more parties under which the parties agree to be bound by the decision to be given by the arbitrator according to the law (Tackaberry and Marriot, 2003). Thus, it infers that arbitration is a dispute resolution mechanism established for the settlement of dispute by a neutral third party known as the arbitrator or panel of neutrals described as the Arbitral Tribunal. Arbitration is a private system of adjudication (Moses, 2012) where parties agree to refer their dispute to an arbitral tribunal of their choice, and to accept the tribunal's decision as final and binding (Emerson, 1970). Among other elements of the arbitration process is the parties' agreement to arbitrate. The agreement to arbitrate is the foundation of any valid arbitration.

The Concept of Mediation

Mediation is understood as an informal consensual process in which a neutral intermediary, the mediator, assists the parties in reaching a settlement of their dispute, based on the parties' respective interests (Kluwer, 2017). The implication is that the settlement agreement is reached by the parties in dispute through consensus. This means that mediation is a voluntary and non-binding process. In other words, mediators do not have the power to impose a binding outcome on the parties. The responsibility of the mediator is to help the parties by guiding them towards a shared understanding of their interests

and the nature of their dispute (Fuller, 1971). While the settlement agreement or outcome of mediation process has force of contract, the parties must voluntarily agree to accept it.

Benefits of Mediation and Arbitration in Intellectual Property Disputes

The benefits of mediation and arbitration process in IP dispute over litigation include:

Party Autonomy

Mediation and arbitration allow parties to exercise greater control over the way their dispute is resolved than would be the case in court litigation. In this way, parties are free to choose the neutral intermediary, the mediator and arbitrators for the resolution of the IP disputes. In arbitration, the parties can choose the place of arbitration, issues to be arbitrated, the applicable law and efficient procedural rules.

Confidentiality

Confidentiality is a vital advantage of mediation and arbitration because it allows the parties to IP dispute to effectively control disclosures and access to sensitive information. For example, in contrast to litigation, which is conducted in the public, trade secrets, patents and other proprietary information are mostly kept confidential in mediation and arbitration process, which can be advantageous for parties who wish to preserve their business reputations and relationships (Corbett, 2011).

Expertise

IP disputes can involve highly technical scientific matters and complex legal issues (Bernstein, 2005). Thus, mediation and arbitration processes permit parties in dispute to choose a neutral and specialised expert in a particular field of endeavor to use their knowledge and experience in order to resolve the dispute. When capable experts are appointed, ADR processes offer benefits that would be otherwise unavailable through litigation (Cook and Garcia, 2010).

Single Procedure

IPRs are territorial in nature (Nigerian case of *Smithkline Beecham PLC v. Farmex Ltd*, 2010). The rise in cross-border trade and the international exploitation of IP means that such disputes are likely to impact across multiple jurisdictions (Martin, 1997), which may potentially be subject to complex conflict of legal statutes considerations. In contrast to litigation, ADR allows multiple issues and rights arising under different jurisdictions to be addressed in a single process, such as arbitration and mediation. In doing so, it avoids the expense and complexity of multi-jurisdictional litigation and the risk of inconsistent results (Bruce and Prinsloo, 2021).

Finality

Arbitration processes can produce binding outcomes that provide a certain and conclusive resolution to the dispute with limited appeal option. Unlike litigation conducted through the court process, which can generally be contested and appealed to the apex court within the jurisdiction, arbitral awards are not normally subject to appeal. This finality is a clear advantage for ADR (Tan, 2018).

Arbitration and Mediation in IP Dispute Resolution in Africa

IP dispute usually arise in the context of licensing, research and development, technology transfer, distribution, franchising, information technology, and data processing agreements (WIPO, 2021). Other IP dispute-prone areas include joint venture agreements, consultancy agreements, digital copyright, TV distribution and formats, copyright collective management, and cases arising out of agreements in settlement of prior court litigation (ibid). Over the years, the number of IP disputes has increased in Africa owing largely to the multiplication of international IP transactions. Although an IP dispute can be brought before a court, litigation is not always well-equipped to take account of the distinctive elements of this type of dispute (Kluwer, 2017). Therefore, arbitration and mediation have great potential in resolving IP disputes in Africa.

Legal Framework of Arbitration and Mediation in Africa

On the African continent, the operations of the African Regional Intellectual Property Organisation (ARIPO) and the African Intellectual Property Organisation (AIPO) have been recognised as platforms for development and protection of IP rights among member states. However, the umbrella organisation of African countries, the African Union, has not been very active in the domain of IP regulation and enforcement (Ncube, 2021). In view of the activities of AU within the context of Agenda 2063, as evidenced by the adoption of the Statute of the Pan-African Intellectual Property Organisation (PAIPO Statute), there is no continental-wide platform designed specifically for the resolution of IP dispute through the ADR. In recognition of this, the study examines the legal frameworks governing arbitration and mediation as effective solutions for resolving intellectual property disputes, focusing on selected African countries and the WIPO Arbitration and Mediation Center.

In Egypt, the only ADR mechanism officially acknowledged by Egyptian law is arbitration (Soliman, 2021). That is, the Act No. 27 of 1994 on Arbitration in Civil and Commercial Matters. However, there are other relevant rules that can be applied by the courts with respect to mediation. For instance, the Law Establishing Economic Courts No. 120 of 2008 provides for the establishment of committee within each court that should be competent to offer mediation to litigants before referring the case to the Economic Court (*ibid*). Significantly, arbitration in IP disputes is now recognised in Egypt through the instrumentality of the Minister of Trade and Industry Decree No. 354 of 2020, which authorises the Contact Point Body for Protecting Intellectual Property Rights Affairs, to settle IP rights disputes through arbitration (Abbas and Matouk, 2021), subject of course, to the agreement of the parties.

Similarly, Kenya offers internationally-recognised mechanisms for dispute resolution that can effectively address IP-related conflicts. The foundation of ADR methods is the Kenyan Constitution. Article 159(2) (c) of the Constitution of Kenya 2010 stipulates that the court is to promote all forms of alternative dispute resolution, which include arbitration, reconciliation, mediation and traditional dispute resolution mechanisms. No doubt, this is one of the principles for exercise of judicial authority by courts and tribunals under Article 159(2) of the Constitution (Owuor, 2021). However, in

Kenya, arbitration is governed by the Arbitration Act 1995, which regulates domestic and international arbitration and provides autonomy to the parties in fashioning the arbitral process.

Nigeria has equally entrenched important legal framework in the system to encourage ADR. The most significant of the legal instruments is the Constitution of the Federal Republic of Nigeria 1999 (as amended), which provides that the foreign policy objectives shall be in 'respect of international law and treaty objectives as well as the seeking of settlement of international disputes by negotiation, mediation, conciliation, arbitration and adjudication' (Section 19(d) of the Nigerian Constitution). The same Nigerian Constitution (Section 251(1) (f)) vests original jurisdiction over IP disputes on the Federal High Court by virtue of Section 17 of the Federal High Court Act.

ADR is principally and currently regulated in Nigeria by the Arbitration and Mediation Act signed into law on the 26th May 2023 by the President of the Federal Republic of Nigeria. The Nigerian Arbitration and Mediation Act 2023 repeals the Arbitration and Conciliation Act, 2004 and enacts the Arbitration and Mediation Act, 2023 to provide a unified legal framework for the fair settlement of commercial disputes by arbitration and mediation. The court in Nigeria has equally developed positive attitude towards the vital role arbitration can play in dispute resolution and declared in the case of *C.N Onuselogu Ent.Ltd v. Afribank Nig. Ltd* (2005), that arbitral proceeding is a recognised means of resolving disputes.

In the same vein, in South Africa, mediation and arbitration are a well-established and popular mechanism for the resolution of commercial and particularly IP disputes. The popularity of mediation and arbitration for IP dispute resolution is significantly boosted by the enactment of the South African International Arbitration Act in 2017 and the South African Uniform Court Rules 41A of 2020. The new Uniform Court Rules introduce mediation as a pre-litigation step and it is mandatory (Soodyall, 2020). While the Domestic Arbitration Act 1965 is applicable to all domestic arbitration, the 2017 International Arbitration Act is applicable to all international arbitration. The Act governs South African law on international commercial arbitration. It applies to any international commercial dispute that the parties have agreed to under an

arbitration agreement and which relates to a matter that the parties are entitled to resolve by way of arbitration (Bruce and Prinsloo, 2021).

From the foregoing, it is not in doubt that African countries have put in place robust mediation and arbitration mechanisms for the resolution of commercial disputes. The international arbitration laws in Africa are principally anchored on the UNCITRAL Model Law on International Commercial Arbitration of 1985 with some variations. Again, most African countries are members of the New York Convention. The Arbitration laws in Africa incorporate, *inter alia*, vital aspects of the arbitral proceedings, including the arbitration agreement, the composition of the arbitral tribunal, and the conduct of arbitration proceedings. In addition, featured prominently in African Arbitration legal instruments are the rules pertaining to the award, its annulment and enforcement. One of the crucial elements in African arbitration process is that the arbitration laws prohibit court proceedings in breach of arbitration agreement. For instance, the Nigerian Supreme Court has held in the case of *M.V Lupex v. Nigerian Overseas Chartering and Shipping Ltd* (2003) that it was an abuse of the court process for a fresh suit to be instituted in Nigerian court during the pendency of arbitration proceedings in London, United Kingdom.

During an arbitration process in Africa, the parties are required to choose the arbitrators and the arbitral awards are final and enforceable. To ensure fairness in the discharge of their duties, appointed arbitrators must be impartial and independent of the parties. Arbitration agreements in Africa are generally upheld as sacrosanct. However, in exceptional cases, arbitration laws permit court intervention, such as when determining the tribunal's jurisdiction.

The WIPO Arbitration and Mediation Center

For effective resolution of IP dispute in Africa, the instrumentality of the WIPO Arbitration and Mediation Center (The WIPO Center) can be explored. The WIPO Center was established in 1994 as a neutral, international and non-profit dispute resolution provider. The Center offers timely-and cost-efficient ADR options such as mediation, arbitration, expedited arbitration, and expert determination to enable private parties to settle their domestic and

cross-border commercial disputes. It specialises in IP, technology and entertainment, enabling parties to efficiently settle their domestic or cross-border disputes. The WIPO Center also provides domain name dispute resolution services under the WIPO-designed UDRP. WIPO ADR cases were predominantly based on contract clauses. However, some cases were submitted as a result of a submission agreement concluded after the dispute had arisen (WIPO, 2021).

The WIPO Center has its main office at WIPO Headquarters in Geneva, Switzerland. According to former Director-General of WIPO, Francis Gurry, the need for the establishment of the WIPO Centre 'was a belief in the specificity of IP as a subject matter, and thus, of disputes concerning IP, coupled with the conviction that arbitration and other dispute-resolution alternatives offered particularly suitable means of accommodating the specific characteristics of intellectual property disputes' (American Review, 1994). So far, parties to WIPO ADR cases from Africa include Cameroon, Ghana, Kenya, Nigeria, South Africa and Zambia (WIPO, 2021). It is also important to note that WIPO ADR proceedings have been conducted in several languages, including English, French, and Portuguese.

The Enforcement of IP Arbitral Awards

An award is considered as the ultimate goal of any arbitration process and a party should be allowed to enjoy the fruits of arbitral award. Therefore, a successful party in international arbitration expects the award to be enforceable (Opiya, 2012). In some cases, however, a party may be reluctant and refuses to obey and honour the award. It is only when an award is not complied with that the question of enforcement arises.

The New York Convention is the most important international treaty for the recognition and enforcement of foreign arbitral awards. Indeed, the dominant aim of the Convention is to ensure that foreign arbitral awards will not be discriminated against and it obliges parties to ensure such awards are recognised and generally capable of enforcement in their jurisdiction in the same way as domestic awards.

Most countries within the African region have ratified the New York Convention and incorporated same in their respective local legislation with some modifications to suit local contexts. For instance, the enforcement of domestic arbitral awards in Egypt is governed by article 56 of the Arbitration Act. On the other hand, enforcement of foreign arbitral awards is determined by the New York Convention and subject to the same enforcement rules applicable to national arbitral awards under the Egyptian Arbitration Act (Cairo Court of Appeal, 2019). In Kenya, arbitral awards are recognised and enforced under the Arbitration Act. It is however, contingent on whether the arbitral proceedings were domestic or foreign. A domestic award will be recognised as binding and enforced on application to the High Court. On the other hand, foreign awards are recognised and enforced under the New York Convention to which Kenya is a signatory. Similarly, Under the Nigerian legal framework, both domestic and international arbitral awards are recognised and enforced. Foreign awards are recognised and enforced in compliance with the New York Convention under sections 57 and 60 of the Nigerian Arbitration and Mediation Act 2023. Article 35 of Schedule 1 to South African International Arbitration Act also provides for the recognition and enforcement of foreign arbitral awards as required by the New York Convention.

To this end, some national courts in African countries have taken a pro-arbitration approach by recognising and enforcing arbitral awards even when it is against state-owned companies without any contention (Abdallah and Esmail, 2021). Thus, in the Nigerian case of *Shell Trustees (Nig.) Limited v Imani & Sons (Nig.) Limited* (2006), the court held that once the proceedings for recognition and enforcement of an award are recognised, the award becomes immediately enforceable as if it were a court judgment in Nigeria. However, the enforcement of an arbitral award is not without its attendant challenges in Africa.

The Challenges in Enforcement of Arbitral Awards in Africa

Enforcement of international arbitral awards may be complex and in some cases subjected to excruciating obstacles and resistance (Obla, 2011). Its complexity may be influenced by multiple factors.

For example, public policy, enshrined under the New York Convention can be used by national courts in Africa as one of the grounds for refusal of recognition and enforcement of arbitral awards. The reason is not farfetched. The New York Convention does not clearly define what public policy is. Therefore, public policy issues may transcend what is provided in national laws of various African countries. For instance, in the Kenyan case of *Christ for All Nations v Apollo Insurance Company Ltd* (2002), the court had expressed its worries on the potential difficulties in defining public policy. In the light of the uncertainty and ambivalence surrounding the scope of applicability and meaning of the doctrine of public policy as regards arbitration within the international milieu, it has been suggested that the intercourse between different legal systems in international arbitration requires a developed and harmonised legal infrastructure (Kariuki, 2018).

Another challenge to the enforceability of awards is the role of the national courts in arbitral proceedings. In some jurisdictions in Africa, the national arbitration laws make provisions for certain situations whereby the local courts may intervene in the arbitral proceedings. For example, under Article 14 of the Egyptian Arbitration Act, the competent local court may order provisional or conservatory measures, whether before the commencement of arbitral proceedings or during the procedure based on an application from one of the parties. Similarly, on August 15, 2021, Law No 137 of 2021, which amended Law No 48 of 1979 of the Supreme Constitutional Court came into effect in Egypt and extended the scope of the Supreme Constitutional Court's control and vesting it with new powers to review the constitutionality of decisions delivered by international organisations and foreign court judgments which enforcement is sought against the Egyptian State (Wahab and Khaled, 2021). Therefore, it remains to be seen how the uncertainties will manifest and the next step the Egyptian State may take to whittle down the party autonomy posture of the arbitration process.

A similar obstacle to a successful enforcement of arbitral award is observed in Kenya. Before now, and in consonance with the doctrine of finality in arbitration, a party aggrieved by the decision of the High Court on an application seeking to set aside an arbitral award, was considered to have no right of appeal to the appellate court (Desai and Kageni, 2022). This, indeed, is in conformity with

section 10 of the Kenya Arbitration Act 1995, which restricts courts' intervention in arbitration proceedings. However, in the case of *Nyutu Agrovet Limited v Airtel Networks Kenya Limited* (2019), the Supreme Court of Kenya found that the decisions of the High Court with regards to enforcement or setting aside of an arbitral award are appealable to the Court of Appeal. This decision is perceived to upset the previously long held judicial precedent that had affirmed the principle of party autonomy as a key characteristic of arbitration (Kashindi, Miringu and Otieno, 2022).

Furthermore, the freedom to arbitrate is limited by statute and case law, such that disputes arising from specific subject matters such as IP, are not arbitrable (Oturu and Oluwasanya, 2022). For example, under Section 251(1)(f) of the Nigerian Constitution, the Federal High Court has jurisdiction to hear IP disputes, to the exclusion of every court or tribunal. As such, arbitration mechanisms are not readily deployed to resolve IP disputes therefore, it is assumed that the right forum to determine the complaint of parties in IP disputes can only be in court (ibid). This position may be considered as a challenge to effective direct use of arbitration to resolve IP disputes.

Again, while the New York Convention has created a regime for the recognition and enforcement of arbitral award, it is worthy of note that some countries in Africa (such as the Gambia, Chad, Eswatini, Libya, Namibia Somalia, South Sudan and Togo) are yet to ratify the New York Convention (Battisson and Stebbing, 2021), leading to different legislative approaches to the enforcement of awards. Lack of uniformity in legislative approaches can result to inconsistent legal interpretation that may impact on the recognition and enforcement of arbitral awards in different jurisdictions within Africa.

In addition, cost is considered as an obstacle to a successful enforcement of arbitral awards in Africa. Indeed, the process of enforcement of arbitral awards through the court system, payment of arbitrators' fees and travel expenses to various jurisdictions in Africa may whittle down the merits associated with the process. A way to reduce the expenses both parties incur can enhance ADR processes in Africa.

Conclusion

The advent of AFCFTA and the multiplication of international IP transactions will no doubt increase the number of IP disputes in Africa. Mediation and arbitration are increasingly becoming popular and acceptable means of resolving IP disputes across the world, Africa cannot be an exception. Interestingly, Articles 3(1) and 20 of the AFCFTA Protocol on Disputes Settlement have established a dispute settlement mechanism and further provide for mediation and arbitration as an alternative route to resolving disputes under Articles 8 and 27 respectively. The onus now is on critical stakeholders in IP world to consider mediation and arbitration as a viable alternative to court litigation in Africa.

Despite all the attendant challenges associated with arbitration practice in Africa, arbitration provides a veritable platform for IP dispute resolution on the continent. To realise the objective of AFCFTA with respect to IP, countries yet to ratify the New York Convention in Africa are encouraged to do so in order to effectively harmonise the recognition and enforcement process within the region. Similarly, as now obtainable in Egypt, resolution of IP dispute through the ADR system should be entrenched in other legal system in Africa. It is equally advocated that a continental-wide platform should be designed specifically for the resolution of IP disputes through arbitration and mediation in Africa. It is also imperative that the concept of party autonomy and finality of arbitral awards are jealously protected by the courts across all jurisdictions, to boost the confidence of the international community in arbitration process in Africa.

Given the significant successes achieved by the WIPO Arbitration and Mediation Centre as a timely and cost-effective alternative dispute resolution institution, it is recommended to establish a WIPO Centre office in Africa. Additionally, fostering collaboration between WIPO and regional IP organisations, such as ARIPO and AIPO, is essential—particularly in capacity-building initiatives aimed at resolving IP disputes effectively and efficiently through mediation and arbitration across Africa.

References

Literature:

- Corbett, S. (2011). Mediation of Intellectual Property Disputes: A Critical Analysis. *New Zealand Business Law Quarterly* (17) 57-58
- Emerson, F.D. (1970). History of Arbitration Practice and Law.19 Clev St L R 155, 158-159. , 157
- Fuller L., 'Mediation - Its Forms and Functions' (1971) 44 S Cal L Rev 305, 325.
- Kluwer, W. (2017). *Introduction to Intellectual Property* 2nd edn, Kluwer Law International BV
- Moses, M.L. (2012). *The Principles and Practice of International Commercial Arbitration*. Cambridge University Press.
- Ncube,C.B.(2021). *Science, Technology and Intellectual Property: Leveraging Openness for Sustainable Development in Africa*. Juta and Company Limited
- Obla, G.O. (2011). *Arbitration as a Tool for Dispute Resolution in Nigeria: How Relevant Today?* University of Ibadan
- Opiya, R. (2012). *Recognition and Enforcement of International Arbitral Awards: A Comparative Study of Ugandan and UK Law and Practice*. Oxford Brooks University
- Tackaberry J. and Marriot A. (2003). *Beinstein's Handbook of Arbitration and Dispute Resolution Practice*. Sweet & Maxwell
- Trevor Cook, T. and Garcia, A.I (2010). *International Intellectual Property Arbitration*. Kluwer Law International.
- WIPO (1994). The WIPO Arbitration and Mediation Center and its Services. *The American Review of International Arbitration* 5(2) 197-201

Case Law:

- Cairo Court of Appeal, Circuit (7), Challenge No. 55 of JY 135, dated 6 February 2019
- Christ for All Nations v Apollo Insurance Company Ltd (2002) 2 EA 336 (CCK)
- C.N Onuselogu Ent.Ltd v. Afribank Nig. Ltd (2005) 1 NWLR (Part 940)577
- M.V Lupex v. Nigerian Overseas Chartering and Shipping Ltd (2003) 15 NWLR (Part 844) 469
- Nyutu Agrovat Limited v Airtel Networks Kenya Limited [2019] eKLR

Smithkline Beecham PLC v Farmex Ltd (2010) 1 NWLR (PT. 1175)
209-442 @ pg. 229.
Shell Trustees (Nig.) Limited v Imani & Sons (Nig.) Limited (2000)
6 NWLR (Pt 662) 639
Synergy Industrial Credit Limited v Cape Holdings Limited (2019)
eKLR

Legislation:

Constitution of Kenya 2010
Constitution of the Federal Republic of Nigeria 1999 (as amended)
Egypt's Arbitration in Civil and Commercial Matters Act 1994
Kenya's Arbitration Act 1995
Nigeria's Arbitration and Mediation Act 2023
Nigeria's Federal High Court Act
South Africa's International Arbitration Act 2017

International Legal Instruments

African Continental Free Trade Area (AFCFTA) Agreement
AFCFTA Protocol on Disputes Settlement
Berne Convention for the Protection of Literary and Artistic Works
The United Nations Convention on the Recognition and Enforcement
of Foreign Arbitral Awards 1958
UNCITRAL Model Law on International Commercial Arbitration
of 1985
Statute of the Pan-African Intellectual Property Organisation
adopted 31 January 2016
WIPO Performance and Phonogram Treaty.

Internet Sources

Abdallah, A. and Esmail, A. (2021). Challenges with Recognition
and Enforcement of Arbitral Awards in Africa' [https://
www.ibanet.org/challenges-with-recognition-enforcement-
arbitral-awards-africa](https://www.ibanet.org/challenges-with-recognition-enforcement-arbitral-awards-africa) accessed 14 June 2023
Abbas A.A. and Matouk J. (2021). Egypt-Global Arbitration Review
[https://
globalarbitrationreview.com/review/the-middle-
eastern-and-african-arbitration-review/2021/article/egypt](https://globalarbitrationreview.com/review/the-middle-eastern-and-african-arbitration-review/2021/article/egypt)
accessed 8 June 2023
AFCFTA (2023). About The AFCFTA. [https://
au-afcfta.org/about/](https://au-afcfta.org/about/)
accessed 7 June 2023
AFCFTA (2023). Status of AFCFTA Ratification' [https://
www.
tralac.org/resources/infographic/13795-status-of-afcfta-
ratification.html](https://www.tralac.org/resources/infographic/13795-status-of-afcfta-ratification.html) accessed 8 June 2023

- Battisson A. and Stebbing, H. (2021).Enforcement of awards across Africa-42 of Africa's 54 states have not acceded to the New York Convention' <https://www.nortonrosefulbright.com/en/inside-africa/blog/2021/03/enforcement-of-awards-across-africa-42-of-africa-54-states> accessed 13 June 2023
- Bernstein, D. A. (2005). A Case for Mediating Trademark Disputes in the Age of Expanding Brands. 7 Cardozo J Conflict Resol 139, 159 – 160, <http://cardozoocr.com/vol7no1/CAC102.pdf> accessed 11 June 2023.
- Bruce, R. and Prinslo M. (2021). Arbitration as a viable Option to Resolve IP Disputes in South Africa' <https://www.mondaq.com/southafrica/arbitration-dispute-resolution/1131204/arbitration-as-a-viable-option-to-resolve-ip-disputes-in-south-africa> accessed 10 June 2023
- Desai, N. and Muthoka, E.K. (2022) Arbitration procedures and practice in Kenya: overview' [https://uk.practicallaw.thomsonreuters.com/5-633-8955?transitionType=Defaults&contextData=\(sc.Default\)](https://uk.practicallaw.thomsonreuters.com/5-633-8955?transitionType=Defaults&contextData=(sc.Default)) accessed 10 June 2023
- East African Community, African Continental Free Trade (AFCFTA) Agreement <https://www.eac.int/trade/international-trade/trade-agreements/african-continental-free-trade-area-afcfta-agreement> accessed 10 June 2023
- World Intellectual Property Organization Arbitration and Mediation Center, WIPO model mediation clauses and submission agreements' <https://www.wipo.int/amc/en/clauses/index.html> accessed 9 June, 2023.
- Jillani, T.H. (2012), Delayed Justice & the Role of ADR. www.uop.edu.pk accessed 5 June 2023.
- Kariuki, F. (2018).Challenges Facing the Recognition and Enforcement of International Arbitration Awards within the East African Community' <http://kmco.ke/wp-content/uploads/2018/08/paper-on-recognition-and-enforcement-of-foreign-arbitral-awards.pdf> accessed 10 June 2023
- Kashindi, G. Miringu, M. and Otieno N. (2022) Kenya: An Introduction to Dispute Resolution' <https://chambers.com/content/iem/389> accessed 13 June 2023
- Marsoof, A. (2021).Intersections between Intellectual Property and Dispute Resolution' <https://academic.oup.com/book/41122/chapter/350440357> accessed 9 June 2023
- Martin, J.A. (1997). Arbitrating in the Alps Rather Than Litigating in Los Angeles: The Advantages of International Intellectual Property-Specific Alternative Dispute Resolution' Stanford

- Law Review (49) 4 917, 930. https://patentlyo.com/patent/2007/02/voda_v_cordis_p.html accessed 10 June 2023
- Oturu, D and Oluwasanya, O. (2022). Arbitrating Intellectual Property Disputes in Nigeria: Lessons from Hong Kong and Singapore' <https://www.ibanet.org/ip-july-2021-ip-property-disputes-nigeria> accessed 13 June 2023 accessed 13 June 2023
- Owuor, O.J.K. (2021). Legal Framework for Alternative Dispute Resolution: Kenyan Perspective. https://papers.ssm.com/sol3/papers.cfm?abstract_id=3816632 accessed 11 June 2023
- Shamir, Y. (2022). Alternative Dispute Resolution Approaches and their Application in Water Management: A Focus on Negotiation, Mediation and Consensus Building' <http://unesdoc.unesco.org/images/0013/001332/133287e.pdf> accessed 9 June 2023
- Soliman, R.A. (2021). Mediation. <https://www.adsero.me/blog/mediatio> accessed 5 June 2023
- Soodyall, S. (2020). Changes to High Court Rules: Mediation a must- Uniform Court Rule 41A' <https://cngattorneys.co.za/changes-to-high-court-rules-mediation-a-must-uniform-court-rule-41a/> accessed 13 June 2023
- Tan, J.A. (2018).WIPO Guide on Alternative Dispute Resolution (ADR) Options for Intellectual Property Offices and Courts https://www.wipo_pub_guide_adr.pdf accessed 10 June 2023
- Wahab, M.A and Khaled N. (2021). International Arbitration 2021 <https://practiceguides.chambers.com/practice-guides/international/-arbitration-2021/egypt/trends-and-developments> accessed 11 June 2023
- WIPO, WIPO Alternative Dispute Resolution (ADR) Services for Specific Sectors' <https://www.wipo.int/amc/en/center/specific-sectors/> accessed 12 June 2023
- WIPO, (2021). WIPO Arbitration and Mediation Center Case Load Summary' <https://www.wipo.int/amc/en/center/caseload.html> accessed 12 June 2023
- WIPO, (2021). WIPO Caseload Summary' <https://www.wipo.int/amc/en/center/caseload.html> accessed 14 June 2023

COPYRIGHT AS MOVABLE PROPERTY: CONSTITUTIONAL ISSUES WITH NIGERIA'S COPYRIGHT ACT

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Abstract

Section 30 (1) of Nigeria's Copyright Act of 2022, which provides for the assignment and licensing of copyright, goes over and beyond its equivalent provision in the former Act. The new Act provides that "for the purpose of Chapter 4 of the Constitution of the Federal Republic of Nigeria 1999, copyright shall be deemed movable property." This novel provision signifies a significant departure from the traditional understanding of copyright as an intangible right and aligns it with other forms of property protected under Chapter 4 of the Constitution. By so doing, it raises several important issues pertaining to its constitutionality, and its potential as a tool for censorship within the Nigerian social order. This article challenges the constitutionality of expanding the meaning of "movable property" under Chapter 4 of the Constitution to include copyright, and argues that even if it was constitutional, such an extension is undesirable as it weakens the copyright regime by making it subject to the limitation of rights to property under Chapter 4 – compulsory acquisition.

Keywords

Copyright, intellectual property rights, Nigerian Constitution, Compulsory Acquisition

Introduction

The Copyright Act (2022) of Nigeria, which replaces the former Copyright Act (Cap C28, LFN 2004), marks a significant evolution in the legal framework for regulating and protecting copyright. The

Act was passed to strengthen copyright protection in Nigeria and align the country's legal framework with international standards and treaties, especially in light of technological advancements and digital content distribution. Key objectives of the Act include the protection of the rights of authors, compliance with various international copyright treaties, and strengthening of copyright enforcement. A particularly noteworthy change is found in Section 30 (1), which provides for the assignment and licensing of copyright. Unlike its predecessor, the new Act introduces a pivotal shift by classifying copyright as movable property. The new Act states that "for the purpose of Chapter 4 of the Constitution of the Federal Republic of Nigeria 1999, copyright shall be deemed movable property." This provision signifies a significant departure from the traditional understanding of copyright as an intangible right and instead, aligns it with other forms of property protected under Chapter 4 of the Constitution.

However, this reclassification raises several important constitutional questions, particularly concerning the broader property rights regime under Chapter 4. The treatment of copyright as movable property potentially subjects it to the same limitations as other forms of property, especially the provisions on compulsory acquisition. This raises concerns about the vulnerability of copyright to government control or acquisition, which could inadvertently be used as a tool for censorship or suppression of creative expression. In light of this, this article raises the following questions:

- i. Is the classification of copyright as movable property constitutional?
- ii. How does this classification affect copyright within the broader property rights regime under Chapter 4 of the Nigerian Constitution?
- iii. What comparative insights can be drawn from other jurisdictions?

This article ultimately challenges the constitutionality of expanding the definition of "movable property" to include copyright and argues that even if such an expansion were constitutional, it may be undesirable. By subjecting copyright to the limitations of property rights under Chapter 4, including compulsory acquisition,

the regime risks weakening copyright protections, potentially undermining the rights of creators and limiting creative freedom in Nigeria. The article explores the concept of copyright as movable property, conducts a constitutional analysis of section 30 (1), as well as a comparative study with other jurisdictions, namely Australia and India.

The Concept of Copyright as Movable Property

This section addresses the question of whether classifying copyright as movable property aligns with the constitutional principles of Nigeria. It begins by exploring the traditional concept of copyright, followed by an analysis of its classification as movable property.

Traditional Understanding of Copyright

Copyright, traditionally regarded as an intangible right, represents the exclusive set of rights granted to creators over their intellectual works. Unlike physical or tangible property, copyright is not something that can be physically moved or possessed. Instead, it is a bundle of legal rights that exist independent of the physical embodiment of the work. For instance, while a book or a compact disc may embody a copyrighted work, the copyright itself—comprising rights like reproduction, distribution, and performance—remains a non-physical, incorporeal asset, which subsists in a work (Oyewunmi, 2015).” While it can be embedded in tangible media, copyright is distinct and exists independently of the physical object in which it is embodied (Oyewunmi, 2015). Thus, copyright is neither movable nor immovable: it is intangible (Qinqing, 2023).

The classification of copyright as an intangible property is also aligned with international norms on copyright protection. For instance, the Berne Convention for the Protection of Literary and Artistic Works, a foundational treaty in international copyright law, defines “literary and artistic works” as original works of literature, science, or art without explicitly mentioning whether they are tangible or intangible. The Convention’s focus is on protecting the intellectual creation itself, regardless of its physical form.

Despite the foregoing, prior to the 2022 Act, the legal status of copyright as movable property under Nigerian law might have seemed unclear in Nigerian jurisprudence. This uncertainty seems to have stemmed from the absence of explicit definitions of “movable” and “immovable” property in the Constitution of the Federal Republic of Nigeria. Cases that could have shed light on the matter, such as *Musical Copyright Society of Nigeria Ltd (MCSN) v. Nigeria Copyright Commission (NCC)*, sidestepped addressing the issue directly (Okorie, 2017). In this case, the Federal High Court and Court of Appeal avoided making determinations on whether copyright qualified as movable or immovable property under the Constitution. At the Court of Appeal (CA/L/575/2009), one of the issues raised was whether intellectual property falls within the definition of movable or immovable property, as referred to and protected by the 1999 Constitution or the African Charter on Human and Peoples’ Rights. MCSN argued that since Section 11 of the Copyright Act (2004) classified copyright as movable property, it should be considered as property protected by the Constitution. The NCC agreed that copyright could be viewed as movable property, but contended that an assignee or licensee of copyright does not hold property rights in the sense outlined by Section 44 of the Constitution. Despite these arguments, the court did not provide a ruling on this specific question. Nonetheless, I argue that this is a misinterpretation, as Section 11 of the former Act explicitly states that copyright shall be transmissible as movable property, meaning that it can be transferred by assignment, testamentary disposition, or operation of law. It did not go as far as to classify copyright as a constitutionally-protected property. However, the new Copyright Act has attempted to put to rest the question of whether copyright is the type of property contemplated under the constitution.

Constitutional Analysis of Section 30(1)

This section addresses the question of how the reclassification affects copyright within the broader property rights regime under Chapter 4 of the Nigerian Constitution. This Chapter of Nigeria’s constitution encompasses a comprehensive set of fundamental human rights and entrenches international instruments such as the Universal Declaration of Human Rights and the African Charter on Human and Peoples’ Rights. These rights are considered inalienable and reflect Nigeria’s commitment to upholding the rights and freedoms of its citizens. These rights cover a wide range of areas, including the right to life, dignity, liberty, fair hearing, privacy, and

freedom of thought and expression. It is important to note that while Chapter 4 of the constitution guarantees a multitude of rights, there is no explicit mention of copyright or any other intellectual property rights. This raises an intriguing point of analysis: the extent to which Nigeria's Constitution addresses intellectual property rights within the context of fundamental human rights.

The absence of a direct mention of intellectual property rights in Chapter 4 of the constitution leaves room for varied interpretation and potential challenges. The argument that intellectual property rights are implicitly protected under the broader umbrella of fundamental human rights, particularly the right to property needs to be carefully examined.

The first reference—if one can call it that—to copyright under the Nigerian constitution can be first traced to Chapter 2 of the Constitution, which is titled “Fundamental Objectives and Directive Principles of State Policy.” Unlike Chapter 4, which deals with fundamental rights, Chapter 2 outlines the guiding principles and goals that the Nigerian state should strive to achieve in governance and socio-economic development. These provisions are considered non-justiciable, meaning they are not enforceable in court. They serve as guiding principles for the government and policymakers in formulating and implementing laws, policies, and programs that aim to achieve social justice, equality, national unity, and sustainable development.

The relevant provision in Chapter 2, which is Section 18(2), provides that the “Government shall promote science and technology” and Section 21, which provides that “The State shall -

- (a) protect, preserve and promote the Nigerian cultures, which enhance human dignity and are consistent with the fundamental objectives as provided in this Chapter; and
- (b) encourage development of technological and scientific studies, which enhance cultural values.

To advance this objective, the federal government was granted exclusive legislative powers over several items, including copyright and patents (Part I, second schedule to the Nigerian 1999, See Item

13 and 43 of the Exclusive Legislative List). These powers are comparable to those granted by the US Constitution, however, the latter goes on to state exactly how science and arts would be protected. Article I Section 8 Clause 8, states that: “The Congress shall have power...To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries” (U.S. Const. art. I, § 8). In addition, and more expressly, the Federal High Court of Nigeria was granted exclusive jurisdiction to hear copyright matters (*Constitution of the Federal Republic of Nigeria, 1999, Section 251*).

Two things are worthy of note. Firstly, the word “copyright” was mentioned only in these two contexts. Secondly, and more importantly, the term “Legislative Powers” in the second schedule implies that the national assembly has the power to create copyright laws. This is not the same thing as placing it under an obligation to do so (Jaffey, 2004). For example, one can neither sue the State for failing to create a new state (as provided for in Item 14 of the List), nor sue the state for failing to borrow money for the purposes of the State as provided under Item 7.

So, while the Constitution gives the State the power to make laws, such as copyright and patent, for the promotion of science, technology and enhancement of cultural values, those patents and copyrights themselves are not constitutionally-guaranteed. But, as would be argued later, this does not mean that they cannot be assigned the rights associated with property. For example, the US Patent Act quite explicitly states that “[s]ubject to the provisions of [Title 35], patents shall have the attributes of personal property”. If the right to something depends on a statute explicitly creating it, you cannot refer to such a thing as a constitutional right. This would be similar to calling a contractual right or an author’s moral right constitutional. Thus, unlike with the promises under Chapter 4, no constitutional right to copyright arises under Chapter 2 or Item 13.

Moving on to the question of whether *Section 30 (1) of the Copyright Act, 2022* is Constitutional, the said provision states:

For the purpose of Chapter 4 of the Constitution of the Federal Republic of Nigeria 1999, copyright shall be deemed to be

movable property and shall be transferable by way of assignment, testamentary disposition or operation of law.

To thoroughly analyse this provision, we must first review the former Act's stance on copyright assignment and licensing. This is necessary in order to understand the mischief sought to be addressed by not only deeming copyright to be movable property, but also particularly placing it under the fundamental rights Chapter of the Constitution.

The equivalent provision in the old Copyright Act is Section 11 and it provides as follows:

Subject to the provisions of this section, copyright shall be transmissible by assignment, by testamentary disposition or by operation of law, as movable property.

The differences between the old and the new provisions might be subtle, but a careful reading reveals two key issues. First, while the former Copyright Act limited itself to stating that copyright shall be transmissible as movable property, the new Act asserts that copyright is "deemed" movable property. In other words, while the former provision only adopts the transferability attribute of movable properties for copyright, under the new Act, copyright is now movable property; though short of the practical attribute of movable properties, all other legal rights and limitations of movable properties are adopted for copyright. When something is deemed as movable property, it goes beyond acknowledging the transferability aspect. By deeming copyright as movable property, the Act has conferred a legal status upon copyright that is equivalent to movable property. This means that copyright must now be treated and regarded legally as if it possesses the characteristics and attributes associated with movable property, even if it may not fully exhibit all the inherent features of traditional movable property. But this raises the question of what those attributes really are. This is answered through the second key difference between the old Act and the new Act.

The new Act introduces the phrase – "For the purpose of Chapter 4 of the Constitution of the Federal Republic of Nigeria 1999". Therefore, the question of what the attributes are is answered not on the

strength of its own interpretation, but with reference to Chapter 4 of the Constitution. The only attribute of movable property explained under section 30 is transferability, which according to the section, can be effected through assignment, testamentary disposition, or operation of law. The second implication of the phrase, it would seem, is that even though the term “movable property” in Chapter 4 was formerly understood to mean physical or tangible property, we must now see it differently. Henceforth, when one reads the Nigerian constitution, one must now interpret the phrase “movable property” as including copyright. As a result, the new provision goes two steps further – first by deeming copyright as movable property and second, by incorporating a reference to the Nigerian Constitution.

But how does the Constitution define “movable property”? It does not. However, Section 44, which touches on movable property mentions some examples such as economic trees or crops, animals, and minerals, all of which are “movable”. Can this be reasonably interpreted to include intangible properties? I do not think so. The general understanding of the meaning of the phrase can be found in case law. For example, in the case of *Mohammed v. The State* ((2000) 12 NWLR (Pt. 682) 598), in explaining the offence of theft, Omu JCA stated that it was necessary to have the following elements present: an absence of consent of the owner of the movable property; movement of the said property; and intention to take the movable property. As there can be no movement of copyright, or in fact anything which is intangible, it cannot reasonably be considered “movable” under the constitution. Consequently, no room is given for any law to define the phrase “movable property” beyond its ordinary meaning. Such ordinary meaning can be found in Cambridge dictionary, where it is defined as property that you own and can take with you, which does not include houses, apartments, or land. Therefore, it would include items such as livestock. books, computers, and cars.

Even in the event that these factual limitations to the ‘movability’ of copyright are ignored, any inclusion of copyright as a movable property under the constitution can only be done through a constitutional amendment. In the case of the *National Assembly v President* [2003] 9 NWLR (Pt.824)104, it was reiterated that an amendment of any provision of the Constitution must be in accordance with the procedure laid down in section 9 of

the Constitution. By its “deeming” provision, the new Act has attempted to expand the definition of movable property beyond what is provided for under the Constitution. Consequently, Section 30 of the Act runs *ultra vires* the constitution and should therefore, be declared null and void.

Having established that Chapter 4 of the Constitution did not contemplate copyright as movable property, the only conclusion to be reached is that the Copyright Act has, in effect, attempted to amend the Constitution to make the term “movable property” include copyright. Nonetheless, in the absence of an explicit provision in the Constitution recognising copyright as movable property, the new Copyright Act, being a law enacted by the National Assembly, cannot validly deem it as such and must itself be deemed null and void in light of Section 1(3) of the Constitution.

Secured Transactions in Movable Assets

The classification of copyright as movable property also raises important questions when viewed in light of the *Secured Transactions in Movable Assets Act* (2017). Section 63(1) of the Act defines “movable assets” as “tangible or intangible property other than real property.” However, it leaves the term “intangible property” undefined, which introduces ambiguity when dealing with assets like copyright, an intangible, non-physical asset. If one may allude to other jurisdictions, such property may be said to include “receivables, choses in action, deposit accounts, electronic securities and intellectual property rights” (Section 2 of Kenya’s *Movable Property Security Rights Act*, 2017)

The inclusion of copyright as movable property under the Copyright Act offers potential benefits for holders of copyright, particularly in the context of the Secured Transactions Act, which seeks to promote access to credit by allowing individuals and businesses – especially micro, small, and medium enterprises (MSMEs) – to use movable assets as collateral for loans. By deeming copyright as movable property, copyright owners may now be able to use their intellectual property as security for debt financing, potentially unlocking new avenues for capital and business expansion. This supports the broader objective of the Secured Transactions Act to facilitate MSME access to finance.

However, there are potential concerns. As copyright is now subject to the framework of secured transactions, it risks becoming vulnerable to foreclosure and enforcement actions, just like tangible property. But unlike tangible property, such as equipment or vehicles, copyright is a bundle of exclusive rights over the use, distribution, reproduction, and exploitation of a creative work and should not be treated the same as other movable assets in secured transactions. Why? Firstly, Copyrights protect works that have immense cultural, creative, and sometimes political significance. Foreclosure on a copyright could mean the transfer of these works, which could result in unintended restrictions on access or misuse by the acquiring entity. For example, a bank foreclosing on a copyright could commercialise or suppress a work in ways that go against the original creator's intent or the public's interest. Secondly, unlike tangible property that wears out or can only be used in one place at a time, copyright can be licensed or exploited by multiple parties simultaneously without depleting its value. Foreclosing on it could lead to improper exploitation, where the holder of the security interest commercialises it without considering the broader implications for the creator's rights or cultural integrity. Thirdly, copyright laws, particularly under international conventions like the Berne Convention, grant creators not only economic rights (to profit from their work) but also moral rights, such as the right to attribution and the right to object to derogatory treatment of their work. These rights could be compromised if copyright is foreclosed and transferred to a party that does not respect these non-economic interests.

Also, copyright holders often exercise strategic control over how their works are used, ensuring that licensing agreements align with their vision or the cultural message of the work. If copyright is treated like a typical movable asset, creditors could enforce their security interests in a manner that strips the creator of this control, potentially leading to inappropriate or exploitative uses of the work. In extreme cases, transferring ownership of a copyright through foreclosure could allow the new owner to prevent the distribution of the work. This raises concerns about censorship, particularly if the copyright was held by an artist who uses their work for political or social commentary. The new owner might suppress the work or modify it in ways that undermine its original purpose. Lastly, unlike tangible property, where repossession is straightforward, the foreclosure of copyright is more complex. Copyright often

exists independently of the physical embodiments of the work (e.g., books, films, recordings), meaning that the secured party would acquire the rights to control and exploit the work, but not the physical manifestations themselves. This complicates the notion of “ownership” and how creditors might assert their rights.

Notwithstanding the foregoing, the omission of a clear definition of “intangible property” in the Act may lead to interpretative challenges, particularly if copyright holders dispute whether their copyright should be treated like other assets under the secured transactions regime. Courts may need to step in to clarify how copyright fits within this framework, and to ensure that the enforcement of security interests in copyright is fair and respects the intangible nature of the asset. Moreover, the principle that expropriatory statutes must be construed sympathetically in favor of the person whose property rights are being deprived could come into play. This principle, applied to copyright, suggests that in cases of enforcement or foreclosure under the Secured Transactions Act, courts should interpret the law narrowly to avoid undue infringement on the rights of copyright holders. Copyright is an essential asset for creators and businesses, and its classification as movable property could expose it to risks that tangible assets typically face, such as compulsory acquisition, which is a significant concern under Chapter 4 of the Constitution.

Thus, while the classification of copyright as movable property under both the new Copyright Act and Secured Transactions in Movable Assets Act creates opportunities for leveraging intellectual property for financing, it also brings challenges. Without clearer guidelines, this classification may subject copyright to risks traditionally reserved for physical assets, making it vulnerable in ways that may not fully account for its unique nature as an intangible asset. This necessitates careful judicial interpretation and legislative refinements to balance the interests of copyright holders and creditors effectively.

Comparing with Other Jurisdictions

This section demonstrates that Nigeria’s former Copyright Act of 2004 was not only largely aligned with the Copyright Decree of 1970

(Section 10 (1) Copyright Decree, 1970), but also other jurisdictions in its treatment of copyright. Like many other countries, the 2004 Act classified copyright as transferable through assignment, testamentary disposition, or operation of law, resembling movable property. Relevant examples in this comparison include 201(d)(1) of the *United States Copyright Act*, which provides the following: “The ownership of a copyright may be transferred in whole or in part by any means of conveyance or by operation of law, and may be bequeathed by will or pass as personal property by the applicable laws of intestate succession”. S 90(1) of the *British Copyright Act* provides: «Copyright is transmissible by assignment, by testamentary disposition or by operation of law, as personal or moveable property.» Similarly the *South African Copyright Act 98 of 1978* (as amended) (the *South African Copyright Act*) provides in s22(1): “... [C]opyright shall be transmissible as movable property by assignment, testamentary disposition or operation of law”.

To delve deeper, while *Cyprus’ Copyright Law (Consolidation) of 1976* does not explicitly classify copyright as movable property, it nonetheless treats copyright as transferrable in a manner similar to movable assets. According to Section 12(1) of Cyprus’ law: “Subject to the provisions of this section, copyright shall be transmissible by assignment, testamentary disposition, or operation of law, as movable property.” This indicates that although Cyprus doesn’t explicitly call copyright movable property, it is treated as such for the purposes of transfer, aligning it with property law principles that apply to movable assets.

Similarly, *Liberia’s Intellectual Property Act of 2016* treats copyright as a transferrable asset but uses broader language that includes licensing as a method of transfer. Section 9.23(a) of Liberia’s law states: “Subject to this section, copyright shall be transmissible by assignment, license, testamentary disposition, or by operation of law, as movable property.” This approach, like in Cyprus, implies that copyright can be transferred in a manner akin to movable property, although it is not explicitly classified as such. Thus, while neither Cyprus nor Liberia explicitly define copyright as movable property, both treat it as a transferable asset, suggesting that copyright shares characteristics with movable property for legal purposes. This classification allows copyright to be owned, transferred, and protected under principles of property law. Notably, neither Cyprus nor Liberia reference copyright in their

constitutional provisions, nor do they explicitly relate copyright to the fundamental right to property.

The similarity in wording and approach across these jurisdictions can be attributed to their reliance on international conventions and global intellectual property frameworks. Both Cyprus and Liberia, like many other countries, are signatories to major international agreements such as the Berne Convention for the Protection of Literary and Artistic Works and treaties administered by the World Intellectual Property Organisation (WIPO). These conventions set common standards for copyright protection, which countries then incorporate into their national laws. As a result, many jurisdictions adopt similar language and principles when drafting their copyright laws, leading to uniformity across different countries.

Consequences of Deeming Copyright as Movable Property Under Chapter 4 of the Constitution

In the event that the court, if so prompted, declares copyright to be indeed movable property under Chapter 4, either based on the interpretation of the Constitution or the Copyright Act, what would be the effect of this? This section addresses how the classification of copyright as movable property under the Copyright Act 2022 affects its status within the broader property rights regime under Chapter 4 of the Nigerian Constitution. Specifically, it explores the legal consequences of including copyright in the definition of movable property by examining two key aspects: the risk of compulsory acquisition and the implications for freedom of expression. A comparative approach is used, looking at practices in other jurisdictions, namely Australia and India.

Firstly, the classification of copyright as movable property under Chapter 4 raises the question of whether copyright infringement could be considered a violation of fundamental human rights. While the Act does not explicitly state this, the equation of copyright with movable property, as recognised under the Constitution, suggests that fundamental rights enforcement procedures might be applicable in certain cases. As Okonkwo (2022) argues, this could open the door for individuals to seek redress for copyright infringement through constitutional channels.

Secondly, the classification of copyright as movable property subjects it to the limitations associated with the right to property under Chapter 4 of the Constitution, including compulsory acquisition. This raises significant implications for copyright holders and the public. The relevant provision in Chapter 4 referred to by the Copyright Act, 2022 is Section 44 (1), which provides as follows:

No moveable property or any interest in an immovable property shall be taken possession of compulsorily and no right over or interest in any such property shall be acquired compulsorily in any part of Nigeria except in the manner and for the purposes prescribed by a law that, among other things:

(a) requires the prompt payment of compensation therefore, and;

(b) gives to any person claiming such compensation a right of access for the determination of his interest in the property and the amount of compensation to a court of law or tribunal or body having jurisdiction in that part of Nigeria.

This provision introduces the possibility that copyright, now classified as movable property, could be subject to compulsory acquisition by the government. The implication is that the government could, in theory, acquire copyrights for reasons of public interest or national security, provided compensation is given. This represents a shift in the treatment of copyright, from an intangible, privately-controlled asset to one that may be forcibly acquired by the state.

If copyright is subject to compulsory acquisition, the government could potentially acquire copyright-protected works against the wishes of the copyright owner. This raises concerns about the impact on cultural heritage, freedom of expression, and the rights of creators. One key question is whether compulsory acquisition of copyright would automatically place the acquired works in the public domain or simply transfer ownership to the government? If the works are placed in the public domain, anyone could use or reproduce them without permission. This could have significant implications for the economic interests of copyright owners and the preservation of cultural heritage.

Another important consideration is the impact of compulsory acquisition on moral rights. Moral rights, such as the right of attribution and the right to object to derogatory treatment of the work, are fundamental to the protection of creators' interests. It is unclear how these rights would operate in the context of compulsory acquisition. Would the government assume these rights, or would they be extinguished?

Furthermore, the government's power to acquire and control copyright-protected works must be balanced with the right to freedom of speech. Compulsory acquisition could potentially be used to suppress dissenting voices or to control the dissemination of information.

As an example, consider the case of Nigerian activist Ken Saro-Wiwa. If the government had the power of compulsory acquisition of copyright-protected works, it could have seized and controlled Saro-Wiwa's writings, potentially silencing his critical voice and suppressing his contributions to Nigerian literature and activism.

Section 51(xxxi) of the Australian Constitution contains a similar provision, which empowers the government to compulsorily acquire any property. On the authority of this provision, the compulsory acquisition of an aboriginal flag, the copyright to which belongs to one Harold Thomas, was one of the options considered by the senate committee set up to consider copyright and licensing arrangements for the flag (Kelly, 2020).

While the analysis of the pros and cons of a compulsory acquisition regime for copyright is outside the scope of this article, suffice to state here that the first aim of a compulsory acquisition regime for copyright (as seen in the Australian situation), that is ensuring the availability of work for reasons of national interest, is already achieved by the regime of compulsory licensing under the Copyright Act (Section 35), and the inclusion of use by government as an exception to copyright infringement. In effect, this provision suggests that the government, or those acting on its behalf, can use copyrighted works without obtaining permission or facing copyright infringement claims, as long as the use is related to the services or operations of the government (Section 20 (1)(i), General Exceptions to Copyright). The second aim that a regime

of compulsory acquisition might serve with respect to copyright is to de-commercialise a copyrighted work that holds cultural significance and extinguish private interests on it to safeguard it from unsustainable commercial exploitation. But even in such situations, alternative solutions and approaches should be explored first, emphasising dialogue, negotiation, and collaboration with relevant stakeholders, including artists, indigenous communities, and cultural organisations. Compulsory acquisition should be considered as a last resort when all other avenues have been exhausted, ensuring that the process respects the rights and interests of creators, while simultaneously serving the greater goal of cultural preservation and public accessibility (Rimmer, 2020).

The only conditions stated Section 44 of the constitution concerning compulsory acquisition of movable property are with respect to payment of compensation. The constitution does not provide for the reasons for compulsory acquisition. Therefore, the government can compulsorily acquire a movable property (now including copyright) for good reason, bad reason, or no reason at all. This freedom is a potential weapon for censorship, and is capable of being invoked to limit freedom of expression, a fundamental human right actually expressly provided for under Chapter 4 of the constitution. This provision undermines the democratic principles of any society that upholds freedom of expression.

It is worth reflecting on a historical incident from Indian history that serves as a cautionary tale. In 1949, during India's transformative era, the Madras government made the unprecedented decision to nationalise the copyright of Subramania Bharati's works (Rajan, 2009). While the intention may have been to facilitate wider access to the poet's creations, the chosen approach was riddled with problems. The foregoing made Rajan ask what the Nigerian Government's perspective on Ken Saro-Wiwa's works would be in this context, if it was empowered to control the circulation of his works? As Rajan rightly observed, provisions for the compulsory purchase of an author's copyright by the state highlights a departure from established copyright norms. Such norms speak to the balancing of rights, which is inherent within copyright itself.

Conclusion

This article has discussed the deeming of copyright to be movable property under Chapter 4 of the Nigerian Constitution, arguing that this presents significant constitutional and practical implications. While this provision aligns with broader property law regimes, it raises important questions about the compatibility of copyright's traditional status as an intangible right with the legal framework governing movable property under Chapter 4 of the Constitution. The central constitutional debate put forward by this article revolves around whether the national assembly can make such a classification and whether classifying copyright as movable property is consistent with Chapter 4, which protects property rights, but allows for compulsory acquisition. Subjecting copyright to property rights restrictions, especially with the possibility of government acquisition, may undermine the intent to protect intellectual property and potentially weaken creators' rights. Also, classifying copyright as movable property broadens its use within the property rights regime, particularly in the context of secured transactions and movable security interests law. This has potential benefits, such as enabling creators to use their copyright as collateral, enhancing access to financial resources, and stimulating investment in the creative industries. However, it also raises concerns about the vulnerability of copyright to foreclosure and loss of control over creative works.

When compared to other jurisdictions, such as the United States and the United Kingdom, where copyright remains classified as an intangible right, Nigeria's approach stands out. Both the U.S. and U.K. treat copyright as intellectual property distinct from movable property, which offers stronger protections against compulsory acquisition. Similarly, South Africa does not classify copyright as movable property, but acknowledges it as a form of intellectual property that is transferable as movable property.

The new regime offers increased economic opportunities, especially in the context of secured transactions, which could boost the creative industries. Copyright holders may have enhanced access to financing, using their intellectual property as collateral. However, the classification introduces risks, such as compulsory

acquisition by the state, potential misuse, and overreach, which could undermine both creative freedom and the economic stability of copyright holders.

To address these issues, I propose the following legislative reforms:

1. Remove the Constitutional Reference: The most significant reform would be to remove the explicit reference to Chapter 4 of the Constitution. This would allow copyright to be protected under its own specific provisions, without relying on broader constitutional principles that may limit its scope.
2. Strengthen Copyright Protections: If copyright is retained as a movable property, the Act should explicitly address the relationship between moral rights and the property rights associated with copyright. This could help prevent conflicts and ensure that moral rights are adequately protected.

By implementing these reforms, Nigeria can establish a more robust and effective legal framework for copyright protection that balances the interests of copyright holders, the public, and the government.

References

Article I Section 8 Clause 8 of the US Constitution

Asein J (2022), Comparative Table of the Copyright Act, 2022 and the Repealed Act, *Nigerian Copyright Commission*.

Constitution of the Federal Republic of Nigeria 1999 (as amended)

Jaffey P (2004). Hohfeld's Power-Liability/Right-Duty Distinction in the Law of Restitution. *Canadian Journal of Law and Jurisprudence* Vol XVII 295, available at SSRN: <https://ssrn.com/abstract=3799980> or <http://dx.doi.org/10.2139/ssrn.3799980>

Kelly S (2020). Copyright in the Aboriginal flag, 30/10/2020, available at <https://www.allens.com.au/insights-news/insights/2020/10/copyright-in-the-aboriginal-flag/>

Mira T. Rajan S (2006). *Copyright and Creative Freedom: A Study of Post-Socialist Law Reform*. (Routledge UK)

- Mira T. Rajan S (2009). *The Lessons of the Past: C Subramania Bharati and the Nationalisation of Copyright* 6 SCRIPTed 201
- Movable Property Security Rights Act, 2017 (Kenya)
- National Assembly v President* [2003] 9 NWLR (Pt.824)104;
- Okonkwo, I.E (2022). *An Outlook of Nigeria's Intellectual Property Reforms That Will Impact Foreign and Local Businesses from 2023*, Jee Publications. Available at SSRN: <https://ssrn.com/abstract=4368016> or <http://dx.doi.org/10.2139/ssrn.4368016>
- Okorie, C.I (2017), *Nigeria's Approved Society of Collectors Still Limited, for the Time Being*, Afro-IP blog, available: <https://afro-ip.blogspot.com/2017/02/nigerias-approved-soceity-of-collectors.html> accessed 3 October 2024
- Oyewunmi A (2015), *Nigerian Law of Intellectual Property* (Unilag Press,) 2018 reprint; P22
- Rimmer M (2020). *Free the Flag: Copyright Law and Indigenous Intellectual Property: A Submission to the Senate Select Committee on the Aboriginal Flag. Australian Parliament, Canberra.*
- Section 20 (1)(i), *General Exceptions to Copyright Nigerian Copyright Act, The US Patent Act*
- Takash D (2020), "Intellectual Property Rights vs The Bill of Rights," *Captured Economy*, 18 December 2020, available at <https://capturedeconomy.com/intellectual-property-rights-vs-the-bill-of-rights/>
- Qinqing X (2023). *Collective Management of Music Copyright: A Comparative Analysis of China, the United States.*



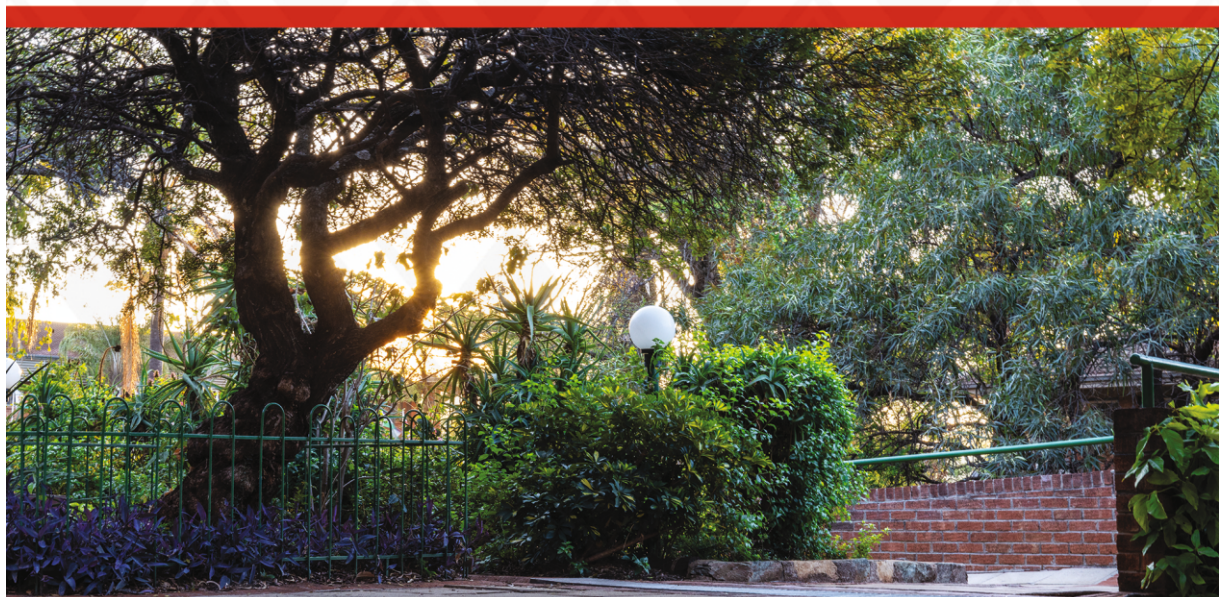
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