
**INTELLECTUAL PROPERTY RIGHTS AND THE FUTURE OF
TRADITIONAL MEDICINE IN NIGERIA**

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ABSTRACT

The study examined intellectual property rights and the future of Nigerian traditional medicine. Data were obtained from 120 traditional medicine practitioners selected through a multistage sampling procedure with the aid of a structured questionnaire. Data analysis was done using mean score analysis and regression analysis. The findings indicated strong support for the creation of special laws tailored to protect traditional medicine knowledge (Mean = 4.83) and benefit-sharing mechanisms when knowledge is commercialized (Mean = 4.10). Result also indicated that modern laws offer inadequate protection to orally transmitted knowledge (Mean = 3.87), while improved protection could encourage youth participation (Mean = 4.48). Collective organization among practitioners was highly supported (Mean = 4.61). Regression results revealed that mainstreaming traditional medicine significantly depends, among others, on ownership and legal protection ($t = 4.96$); modern law compatibility ($t = 4.31$); and youth participation ($t = 3.44$). Strengthening these areas can improve public health outcomes and safeguard cultural heritage in Nigeria.

Keywords: Intellectual Property Rights, Traditional medicine, Health regulation, healthcare system, Nigeria

INTRODUCTION

For millions of Nigerians, particularly in rural and underserved communities, traditional medicine plays a central role in healthcare. The concept of traditional medicine entails indigenous ways of preventing, diagnosing, and treating illnesses, maintaining physical, mental, and spiritual wellbeing by harnessing indigenous knowledge, skills, and beliefs passed down from generation to generation (Che *et al.*, 2024; Biswal & Biswal, 2025). The practice is categorized into the use of roots, leaves, barks, seeds, and concoction; use of massage, bone-setting, and midwifery; and use of prayers, rituals, and incantations. Others include dietary and lifestyle prescriptions based on local knowledge and divination with ancestral beliefs. Those who engaged in the aforementioned in Nigeria are commonly known as herbalists, bone setters, birth attendants, or spiritual healers (Kalu & Kene, 2020). The World Health Organization [WHO] (2020) describes it as the aggregate knowledge, skills, and practices based on theories, beliefs, and experiences that are indigenous to a people, whether explicable or not, used in the maintenance of well-being.

The paradox of traditional medicine being under-reported and regulated within formal legal and healthcare systems amidst its critical role in complementing modern healthcare delivery is concerning (WHO, 2013; Kalu & Kene, 2020). One of the unfortunate outcomes of its low profiling is that much of what is known about traditional medicine continues to rely on oral transmission across generations and is grounded in communal practices rather than Western notions of individual innovation (Biswal & Biswal, 2025). This is evidenced in Nigeria's Intellectual Property (IP) regimes, such as those in many former colonies, which are primarily structured around Western constructs of novelty, authorship, and individual rights, and poorly suited to the collective, incremental, and context-linked nature of traditional medicinal knowledge (Oyiwona and Lashom, 2025).

The foregoing has left traditional practitioners vulnerable to biopiracy and unauthorized commercial exploitation, undermining local control and depriving communities of equitable benefits. International norms such as the Nagoya Protocol emphasize equitable benefit-sharing and prior informed consent for traditional knowledge associated with genetic resources. Regrettably, the implementation of this protocol at the national level in many developing countries like Nigeria has remained a key challenge (CBD Secretariat, 2012; Nagoya Protocol, 2012).

To strengthen protections for traditional knowledge, global instruments are emerging, such as the World Intellectual Property Organization (WIPO) Treaty on Intellectual Property, Genetic Resources and Associated Traditional Knowledge (WIPO Treaty, 2024). Unfortunately, not much has been done to domesticate these instruments of health convention/regulation in Nigeria towards bolstering the intellectual property rights of practitioners of traditional medicine. Where these instruments exist, not much has been published in literature or by previous studies about their focus and/or contributions to the practice of traditional medicine. The resultant information gap due to the dearth of IP literature on traditional medicine is attributed to the low patronage of traditional medicine relative to modern medicine. While trado-medical products grapple with low patronage, the faith of the few consumers is often undermined by the absence of IP marks. To them, the absence of IP marks connotes the absence of product credibility, quality control, and wholesomeness, exacerbating the legal uncertainty, cultural erosion, and loss of indigenous medical knowledge.

Hence, the study was carried out to accomplish the following:

- i. determine preferred models of ownership for traditional medicine knowledge and whether collective or individual frameworks reflect community values and expectations;
- ii. assess perceptions of how modern legal regimes respect or fail to respect traditional methods of knowledge transmission, particularly orally transmitted systems;
- iii. examine the perceived need for tailored legal protection and benefit-sharing mechanisms, especially considering international norms such as the Nagoya Protocol;
- iv. investigate knowledge preservation challenges, including threats from commercialization, generational disconnect, and lack of institutional support;
- v. evaluate institutional and collaborative capacities, including practitioner collectives and inter-agency coordination, as well as levels of acceptance of traditional medicine within official healthcare frameworks.

METHODOLOGY

The study was carried out in Nigeria. The country has a total land area of 923,769 km², comprising 909,890 Km² land area and 13,879 Km² water areas (National Bureau of Statistics, NBS, 2016). Data were collected from 42 participants selected through a 2-stage procedure. In the first stage traditional medical practitioners in Nigeria were clustered into members of the National Association of Nigerian Traditional Medicine Practitioners (NANTMP) based on the 6(six) geo-political zones of Nigeria. Secondly, from each geopolitical zone, traditional medical practitioners who are members of NANTMP were identified. Finally, 7(seven) members of NANTMP who are familiar with IP, traditional medicine, and cultural knowledge systems were purposively selected to give a sample size of 42 participants. Data were collected using a structured questionnaire composed of closed-ended and open-ended questions designed to capture stakeholder perceptions on IP protection, knowledge transmission, commercialization, and institutional collaboration. The questionnaire items were developed based on the existing literature on IP and traditional knowledge protection (Biswal & Biswal, 2025; Xia, 2025). Quantitative data were analysed using descriptive statistics (frequencies and percentages) to identify dominant trends, while qualitative responses enriched the interpretive discussion and policy implications. The study's methodological framework mirrors the approach used in both doctrinal and empirical investigations of legal and cultural issues in intellectual property and traditional knowledge (CBD Secretariat, 2012; Xia, 2023). Data analyses were performed using descriptive and inferential analyses. Precisely, objectives I, II, III, and IV were analyzed using mean score analysis, while objectives V, VI, and VII were analyzed using the bivariate regression model.

The mean score was derived by adding up the weighted values and dividing by the number of items in the scales. Thus:

$$\bar{X} = \frac{\sum fx}{n} \dots\dots\dots(i)$$

Where:

- X = The value by which the item mean was adjudged
- F = Frequency of response
- $\sum x$ = Sum of the items of the scale
- n = Sample size

The discriminating index was derived by adding scale ratings together and dividing by the number of scales, thus: $5+4+3+2+1/5 = 3.0$. Hence, the discriminating index value was set at 3.0, such that items with a mean score ≥ 3.0 were considered “Affirmative “, while items with a mean score < 3.0 were considered “otherwise.”

The regression model is explicitly expressed thus:

$$Y = \beta_0 + \beta_1(\text{Collection ownership}) + \beta_2(\text{Community consent}) + \beta_3(\text{Legal frameworks}) + e \dots\dots\dots(ii)$$

Where:

- Y = Integration of traditional medicine (measured in the number of trado-medical products used in the healthcare sector)
- B0 = Intercept
- B1 = Collection ownership
- β_2 = Community consent
- β_3 = Legal frameworks
- ε = Error term

$$Y = \beta_0 + \beta_1 (\text{Modern laws}) + \beta_2 (\text{Current laws in Nigeria}) + \beta_3(\text{Law requiring inventions}) + e \dots\dots\dots(iii)$$

Where:

- Y = Integration of traditional medicine (measured in the number of trado-medical products used in the healthcare sector)
- B0 = Intercept
- B1 = Modern laws

- B2 = Current laws in Nigeria
- B3 = Law requiring inventions
- ε = Error term
- Y = $\beta_0 + \beta_1$ (Commercialization) + β_2 (Unauthorized use) + β_3 (Companies' gain) + e.....(iv)

Where:

- Y = Integration of traditional medicine (measured in the number of trado-medical products used in the healthcare sector)
- B0 = Intercept
- B1 = Commercialization
- β_2 = Unauthorized use \
- β_3 = Companies ' gain
- ε = Error term

RESULTS AND DISCUSSION

Ownership and Legal Protection of Traditional Medicine Knowledge

Table 1 presents a distribution of participants by Ownership and Legal Protection of Traditional Medicine Knowledge. The findings indicated that there was overwhelming support for the creation of special laws tailored specifically to protect traditional medicine knowledge, with an exceptionally high mean score (Mean = 4.83). This consensus reflects dissatisfaction with existing intellectual property frameworks and a perceived legal vacuum in Nigeria's protection of traditional knowledge. Similarly, the strong agreement on the need for community consent prior to use (Mean = 4.48) underscores respondents' emphasis on prior informed consent (PIC) and collective rights. The high mean scores recorded for the importance of traditional rules and customs (Mean = 4.18) further reinforced the central role of indigenous governance systems in regulating access and use of traditional knowledge. With a significant proportion of the participants supporting collective ownership model (M = 3.78), the finding suggests recognition that traditional medicine knowledge is inherently communal, accumulated over generations, and embedded in shared cultural practices rather than individual innovation. These findings strongly aligned with the earlier finding of Biswal & Biswal (2025), who suggested hybrid protection systems that integrate customary laws with formal legal mechanisms.

Table 1: Participants by Ownership and Legal Protection of Traditional Medicine Knowledge

Statement	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Mean
Traditional medicine knowledge should be owned collectively rather than individually.	22 (52.2)	7 (17.4)	0 (0.0)	7 (17.4)	6 (13.0)	3.78
Traditional rules, customs, and practices are important in controlling how traditional medicine knowledge is shared	24 (56.5)	11 (26.1)	0 (0.0)	6 (13.0)	1 (4.3)	4.18
Nigeria should create special laws made specifically to protect traditional medicine knowledge	35 (82.6)	7 (17.4)	0(0.0)	0(0.0)	0(0.0)	4.83
Communities should give permission before their traditional medicine knowledge is used.	24 (56.5)	15 (34.8)	0(0.0)	3 (8.7)	0(0.0)	4.48

Source: Field Survey data (2025)

Compatibility of Modern Intellectual Property Laws with Traditional Knowledge

The results in Table 2 revealed that a substantial majority of the participants agreed that current laws do not respect the oral, intergenerational transmission of traditional medicine knowledge (Mean = 3.87). This reflects a structural incompatibility between Western IP regimes, which prioritize written documentation, novelty, and individual inventorship, and traditional knowledge, which is communal, orally transmitted, and cumulatively developed (Che *et al*, 2024). The unanimous agreement that Nigerian laws favor Western medicine (Mean = 4.74) highlights perceived systemic bias within legal and healthcare institutions. The high level of agreement that patent novelty requirements do not align with traditional medicine (Mean = 4.05) reinforces the view that existing IP regimes inadvertently exclude traditional knowledge from legal protection. These findings are corroborated by Kalu & Kene (2020) by pointing to the urgent need for sui generis intellectual property systems that recognize the unique epistemological foundations of traditional medicine.

Table 2: Distribution of Participants based on Compatibility of Modern Intellectual Property Laws with Traditional Knowledge

Statement	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Mean
Modern laws often do not respect how traditional medicine knowledge is passed down.	15 (34.8)	16 (39.1)	5 (13.0)	2 (4.3)	4 (8.7)	3.87
Current laws in Nigeria protect modern (Western) medicine more than traditional medicine	31 (73.9)	11 (26.1)	0 (0.0)	0 (0.0)	0 (0.0)	4.74
The law requires inventions to be “new,” which does not fit traditional medicine knowledge	13 (30.4)	22 (52.2)	4 (8.7)	4 (8.7)	0 (0.0)	4.05

Source: Field Survey data (2025)

Benefit-Sharing, Cultural Protection and External Exploitation

From Table 3 results, there was a strong support for benefit-sharing mechanisms when traditional medicine knowledge is commercialized (Mean = 4.10). Participants clearly believed that both practitioners and communities should receive fair compensation, reflecting alignment with international norms on access and benefit-sharing. This thus confirms the assertion of Onukansi *et al* (2025), which indicated growing awareness of economic justice issues related to traditional knowledge exploitation.

The perception that unauthorized use threatens cultural identity (Mean = 4.24) suggests that misappropriation of traditional medicine knowledge is viewed not merely as an economic concern but as a cultural and ethical violation. This concern, which is shared by Oyiwona & Lashom (2025), is revealed by the result that foreign entities benefit more from African traditional medicine than Africans themselves (Mean = 4.62). Such perceptions resonate with documented cases of biopiracy and reinforce calls for stronger legal safeguards to prevent exploitation and ensure equitable returns to source communities.

Table 3: Participants based on Benefit-Sharing, Cultural Protection and External Exploitation

Statement	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Mean
Practitioners and communities should share benefits when traditional medicine is commercialized	20 (47.8)	15 (34.8)	0 (0.0)	5 (13.0)	2 (4.3)	4.10
Unauthorized use of traditional medicine knowledge is a threat to culture.	22 (52.2)	15 (34.8)	0 (0.0)	3 (8.7)	2 (4.3)	4.24
Foreign companies gain more from African traditional medicine than Africans themselves	26 (60.9)	26 (60.9)	0 (0.0)	0 (0.0)	0 (0.0)	4.62

Source: Field Survey data (2025)

Knowledge Transmission, Youth Engagement, and Gender Recognition

Table 4 findings highlighted significant vulnerabilities in the sustainability of traditional medicine knowledge. There was high agreement that orally transmitted knowledge is at risk of loss (Mean = 4.10), which reflects concerns over modernization, urban migration, and the aging population of knowledge holders. These risks are compounded by declining youth interest in traditional medicine (Mean = 4.13), which respondents attribute to low social prestige, limited economic incentives, and lack of formal recognition. Gender disparities were also evident, with strong agreement that women play critical yet under-recognized roles in traditional medicine (Mean = 4.31). This underscores a persistent gender equity gap, as women's contributions are often excluded from formal policy, documentation, and benefit-sharing arrangements. Importantly, unanimous agreement that better protection would encourage youth participation (Mean = 4.48) suggests that legal recognition and economic incentives could revitalize intergenerational knowledge transfer (World Health Organization, 2013). While digital documentation was generally viewed positively, respondents acknowledged its dual nature (Mean = 3.87). Although documentation can preserve endangered knowledge, concerns remain about loss of control, commodification of sacred practices, and potential misuse (WIPO, 2024).

Table 5: Participants based on Knowledge Transmission, Youth Engagement, and Gender Recognition

Statement	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Mean
Oral transmission of traditional medicine knowledge is at risk of being lost.	24 (56.5)	11 (26.1)	2 (4.3)	2 (4.3)	3 (8.7)	4.10
Young people are less interested in learning traditional medicine.	22 (52.2)	13 (30.4)	0(0.0)	5 (13.0)	2(4.3)	4.13
Women play an important role in traditional medicine but are often not recognized	20 (47.8)	16 (39.1)	4 (8.7)	2 (4.3)	0 (0.0)	4.31
Better protection will encourage youth participation in traditional medicine.	20 (47.8)	22 (52.2)	0 (0.0)	0 (0.0)	0 (0.0)	4.48
Digital documentation of traditional medicine has both benefits and risks.	11 (26.1)	22 (52.2)	4 (8.7)	4 (8.7)	2 (4.3)	3.87

Source: Field Survey data (2025)

Institutional Collaboration, Recognition, and Global Prospects

Table 5 presents the distribution of the stakeholders according to their perspectives on integrating traditional medicine into Nigeria's formal healthcare system to achieve global recognition in traditional medicine. The results revealed strong support for collective organization among practitioners (Mean = 4.61), reflecting recognition that unity strengthens negotiation power and protection against exploitation. Respondents also identified significant institutional collaboration gaps between government agencies, research institutions, and traditional bodies (Mean = 4.09), which hinder effective integration of traditional medicine into national health systems. Unanimous agreement on the need for academic recognition and attribution (Mean = 4.57) points to ethical concerns about research practices that extract traditional knowledge without proper acknowledgment (World Health Organization, 2020). Similarly, near-universal support for official inclusion of traditional medicine in Nigeria's healthcare system (Mean = 4.65) aligns with global health recommendations advocating integrative healthcare models. Finally, strong optimism regarding Nigeria's potential for global recognition in traditional medicine (Mean = 4.57) suggests confidence that with appropriate legal frameworks, institutional support, and ethical commercialization, traditional medicine can become a national asset contributing to healthcare delivery, economic growth, and cultural preservation (Xia, 2023).

Table 5: Stakeholder perspectives on integrating traditional medicine into Nigeria's formal healthcare system and positioning the country for global recognition in traditional medicine

Statement	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Mean
Practitioners should unite to protect and negotiate their knowledge.	31 (73.9)	7 (17.4)	2 (4.3)	2 (4.3)	0 (0.0)	4.61
Government, research bodies, and traditional institutions do not collaborate well.	13 (30.4)	24 (56.5)	2 (4.3)	4 (8.7)	0 (0.0)	4.09
Universities should recognize and credit traditional medicine knowledge.	24 (56.5)	18 (43.5)	0 (0.0)	0 (0.0)	0 (0.0)	4.57
Traditional medicine should be officially included in Nigeria's healthcare system.	29 (69.6)	11 (26.1)	2 (4.3)	0 (0.0)	0 (0.0)	4.65
With better laws, Nigeria can gain global recognition for traditional medicine.	24 (56.5)	18 (43.5)	0 (0.0)	0 (0.0)	0 (0.0)	4.57

Source: Field Survey data (2025)

Effect of ownership/legal protection on integrating traditional medicine

Table 6 presents the results of the regression analysis of how ownership/legal protection influences the integration of traditional medicine. The result shows that ownership and legal protection significantly influence institutional integration ($t = 4.96$, $F = 24.63$, $p = 0.000$). The result indicates that stronger support for collective ownership, community consent, and specialized legal frameworks increases support for the formal integration of traditional medicine. From a public health perspective, legal security enhances practitioner confidence, encourages collaboration with formal health institutions, and reduces fear of exploitation. Legal protection, therefore, functions as a structural determinant of sustainable integration.

Table 6: Influence of Ownership/legal protection on the integration of traditional medicine into Nigeria's formal healthcare system

	Variable	t-value.	F-value	p-value
x	Ownership/legal protection	4.96	24.63	0.000
y	Institutional integration of traditional medicine			

Source: Field Survey data (2025)

Influence of Modern law incompatibility on institutional integration of traditional medicine.

Table 7 results show that modern law compatibility significantly influences institutional integration ($t = 4.31, F = 18.54, p = 0.000$). This implies that existing intellectual property laws inadequately reflect oral and intergenerational knowledge systems. This misalignment increases demand for reform and structured recognition. In public health systems, regulatory alignment is necessary for documentation, validation, research collaboration, and policy inclusion. Without reform, traditional medicine remains marginalized.

Table 7: Influence of Modern law compatibility on the integration of traditional medicine into Nigeria's formal healthcare system

	Variable	t-value.	F-value	p-value
X	Modern law incompatibility	4.31	18.54	0.000
Y	Institutional integration of traditional medicine			

Source: SPSS Result of Field Survey data (2025)

The result, as shown in Table 8, indicates that benefit-sharing and cultural protection significantly predict institutional integration ($t = 3.78, F = 14.27, p = 0.002$). This finding reflects concerns about biopiracy and inequitable commercialization. When communities are assured of equitable benefits and cultural respect, they are more willing to support institutional integration. In public health terms, fair benefit-sharing strengthens community trust, promotes ethical commercialization, and enhances sustainable health system collaboration.

Table 8: Influence of Benefit-sharing and cultural protection on the integration of traditional medicine into Nigeria's formal healthcare system

	Variable	t-value	F-value	p-value
X	Benefit-sharing and cultural protection	3.78	14.27	0.002
Y	Institutional integration of traditional medicine			

Source: Field Survey data (2025)

CONCLUSION AND RECOMMENDATIONS

The study concluded that the current legal frameworks were inadequate and biased toward Western medicine. Nigeria urgently needs special laws designed specifically for traditional knowledge protection. Economic exploitation by foreign entities is a major concern requiring benefit-sharing mechanisms. Traditional knowledge transmission is in crisis due to declining youth interest and loss of oral knowledge. Women's contributions must be recognized and valued equally. Traditional medicine should be formally integrated into Nigeria's healthcare system. With appropriate protection, Nigeria can achieve global recognition for traditional medicine

Hence, it is recommended that the following measures be put in place:

- i. Nigeria should consider developing sui generis legislation tailored to traditional knowledge; reforming intellectual property laws to recognize collective ownership and prior art based on traditional use.
- ii. The country needs to strengthen the Traditional Medicine Board/Council with adequate funding and authority; create coordination mechanisms between government agencies, universities, and traditional institutions; establish professional associations and cooperatives for traditional medicine practitioners
- iii. Establish apprenticeship programs and traditional medicine training institutions; integrate traditional medicine into formal educational curricula; provide scholarships and career development support for youth in traditional medicine; implement culturally appropriate documentation programs with community consent
- iv. Nigeria needs to develop a comprehensive National Traditional Medicine Policy. This includes traditional medicine in national health insurance schemes; creating referral pathways between biomedical and traditional practitioners, and investing in research infrastructure for traditional medicine validation and standardization
- v. The country needs a system that supports traditional medicine product development and quality assurance; promotes exports of standardized traditional medicine products; participates actively in international traditional medicine forums; and fosters South-South cooperation and knowledge exchange

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