



RETHINKING INDIGENOUS MUSICAL DRUM TECHNOLOGY FOR A SUSTAINABLE ECONOMIC RECOVERY IN SOUTH WESTERN NIGERIA

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Abstract

Several scholarships have discussed the importance of drums in the musical productions of the Yoruba people of southwestern Nigeria. However, little has been said about the contemporary and modern gadget infusions that are gradually replacing the indigenous musical drum in popular music productions in southwestern Nigeria. The challenge in modern musical equipment's input to popular music production birthed the extinction of indigenous drum technology, joblessness, alteration of traditional musical sounds, loss of cultural dances, and over-dependence on foreign music. Therefore, this study rethinks indigenous musical drum technology for a sustainable economic recovery in the area of music business in southwestern Nigeria. Adopted descriptive survey methods inform the study and include interviews, participant observation, and textual analysis. Secondary data were sourced through libraries and the internet. Based on the critical discourse theories, this study analyses factors responsible for the extinction of indigenous musical drums technology in southwestern Nigeria. I argue that the resuscitation of drum technology has the potential to chronicle issues of joblessness, drum cultural reawakening, traditional dance realignments, and the creation of jobs for sustainable economic recovery in southwestern Nigeria.

Keywords: drums, technology, modern gadgets, popular music

Introduction

In the current globalized world, sustainable economic accomplishments have shifted from internal businesses to more complex international business relations and technological advancement. The availabilities of abundance information, knowledge, technologies, strategies, and global market through the internet, coupled with the unprecedented migration of trade and services has significantly increased the world economics upsurge. Notwithstanding, the upsurge in technological advancement globally, developing countries are still lagging behind in the production of goods and services. Most importantly, the challenge in the infusion of modern musical equipment to popular music production has birthed the extinction of indigenous drum technology, joblessness, alteration of traditional musical sounds, loss of cultural dances, and over-dependence on foreign music. Therefore, this study rethinks indigenous musical drum technology for a sustainable economic recovery and examines its significant opportunities for economic transformation, sustainability, and, to some degree, global competitiveness. It is hypothesized that the adoption of technologies will improve and standardize small and medium-sized enterprises, and businesses to foster national innovativeness, create employment and generate wealth. The importance and role of indigenous knowledge in economic sustainability is emerging as an important underpinning to unrestricted development. Besides, some selected Yoruba indigenous drums were examined; that is ranging from the Yoruba *dundun* ensemble, *bata* drum ensemble, and an array of other Yoruba drums. The multipurpose uses of these drums in Yoruba popular music, festivals, religious engagements, and social-political gatherings positioned them as a viable option for analysis and apt for the economic development of southwest Nigeria.

The philosophical framing of the drum ensemble of the Yorùbá people of Western Nigeria and its important social-cultural milieu has drawn the attention of linguists, eco-musicologists, and anthropologists with a focus on social and environmental functions. These creative designs are implanted in Vidal (2021) the structure of drum ensemble (Durojaye et al 2021), principles of *dùndún* communication, and Titus (2021) opines that Yorùbá music is also



philosophical and sometimes incorporates some non-musical elements, and animals such as the tortoise, goat, buffalo, elephant, dog, lion, snake, snail, fish, and monkey are represented in Yoruba songs and poems. However, after several decades of research in Yorùbá drums music, whether the previous research reflects the economic potentials of Yoruba drums in the globalized economic poses a big challenge, hence, this study fills the gap with an informed assessment of the situation. Therefore, this study examines two major indigenous drum technology with the intent to identify structural and policy directions for the country as well as provide preliminary insight for further mapping of the southwest of Nigeria's economies sustainability.

This empirically and conceptually informed study relied on ethnographic methods to collect data through unstructured oral interviews, observations, and key informant methods. Data was sourced through primary and secondary means and targeted the technology of the Yorùbá drums in southwest Nigeria. The justification for the selection of southwest Nigeria is akin to (Olaleye, 2020) that drumming is a vital part of the Yoruba cultural heritage and is probably the largest user of animal skin drums in the world. The unstructured oral interview engaged the open discussion among the drummers to explore data that include; the profile of drummers, motivational factors, and usages of drums, drum types, sources, method of construction strategies, and challenges encountered, if any, through society or cultural regulation. Information was also collected using focused group discussions. In the observation, the researcher is a member of the Yoruba drum ensemble and keenly observed the subject of the study and participated directly in the discussion, taking notes, and interpreting the interactions. This study also gives a critical content analysis of music, poetry, and songs in drum languages. Context analysis serves as a research tool to determine the presence of certain words, themes, or concepts with some given qualitative data and categorizes words, themes, and concepts with the texts, and then analyzes the results.

The theoretical framework is Allen's theory of ecomusicology. Ecomusicology informs the research because it emphasizes the triangular structure of culture, environment, and human beings (Allen et al., 2014). Ecomusicology is unique in that it considers musical sonic issues, textual and performance related to ecology and the natural environment in all the complexities of those terms. Therefore, the study sticks to the tripartite of Yorùbá drum culture, uses of drums in the environment, society's disposition to its uses, functions, and drum-music economic gains.

The Yorùbá of Southwest Nigeria

The Yorùbá people's ancestral homeland cuts across southwest Nigeria and parts of the Benin Republic. The average population of Yoruba people of western Nigeria is estimated at 42, 844,000 which is 21% of the Nigeria population. The bulk of the Yorùbá currently lives in the southwest of Èkitì, Ògùn, Òyó, Òsun, Òndó, Lagos State, and spread to Kwara and Kogi north-central Nigeria. The climate in southwest Nigeria is characterized by both wet and dry seasons and relatively high humidity. The mean annual rainfall is about 1200mm (Olaniran, 2002). The vegetation of Yorùbá land can be rightly classified under the derived savanna type. However, thick forests exist alongside the rivers, and the Yoruba southwest region is unarguably endowed with vast arable land that can be cultivated to produce sufficient wood and animal skins. The climatic variation offers an opportunity for the alteration of a variety of crops and abundant wildlife animals in Yorùbá land.



Figure 1: Map of Nigeria showing Southwestern states

The uniqueness of drum and drumming is enshrined in the Yorùbá people's traditional music concepts, especially the *dùndún* drum ensemble as a cultural signature entrenched in social entertainment, environ-rituals, and artistic phenomenon. The *dùndún* ensemble significance is established in Yorùbá folklore, culture, history, language, proverbs, poetry, and socio-religious daily life. Previous to modern civilization infiltration, the Yorùbá fashioned entertainments in excellent styles and uniqueness of drum-drumming in sophisticated language garnished with elaborate codes for special knowledge that eludes flippant minds. The drummer can mimic the intonation, tone, stress, rhythm, and even emotion of human speech. The principal talking drum is hourglass-shaped and called the *gangan* or *dùndún* family ensemble with prominences as *Ìyá-ìlù*, *àdámò*, *omele*, *gangan*, *gúdúgúdú*, *sákàrà*, *omele bàtá*, *kerikerì*, *omele ako*, *omele abo*, *Ìyá-ìlù bata*, and *òkonloko*. Yorùbá drums perform multifarious functions as an accompaniment to dance, symbolic functions, ritual purposes, and invocation practice, and encoded messages disseminate according to the dictums of Yorùbá custom and tradition. The perpetual drum dominance is evident in the current unveiling of the tallest drum during the drum festival of Yoruba southwest Nigeria.



Figure 1 Drums Series: The tallest drum during the world drum festival in Southwest Nigeria

Source:

<https://www.channelstv.com/2016/04/23/world-tallest-drums-unveiled-in-drum-festival-in-ogun> The drums stood at 16 and 17 feet during the maiden edition of the Nigeria drum festival, the first of its kind in Nigeria and indeed the continent of Africa.

Data Presentation and Analysis

This study adopted descriptive design because it generally gathered data with the intention of describing the existing condition, identifying standards against existing conditions that can be compared or determined, and the relationship



that exists between happenings. The primary data through the oral interview and observations were analyzed and presented in the form of percentage and frequency tables.

Table 1: Frequency of Yoruba Drums in an Ensemble

Yoruba Musical Ensemble	Yoruba Drums in Ensemble (YDE)	Other Yoruba Drums in Ensemble (OYDE)	No of 'YDE'	No. of 'OYDE'	YDE %	OYDE %
Fuji Music	Gangan, Omele ako, Omele abo, Iyailu, Gudugudu, Omele Bata.	Sekere, agogo	6	2	75%	25%
Juju Music	Dundun, Gangan, Omele, Bata, Gudugudu	Sekere, agogo, conga	8	3	75%	25%
Highlife	Handdrums, agbamole, bata, gudugudu, bata, sakara, omele	Sekere, agogo	6	2	75%	25%
Afrobeats	Akuba, Agbamole, Conga, Gudugudu,	Agogo, Sekere,	7	3	70%	30%

Table 1 reveals that the majority of musical instruments in the Yoruba musical ensemble are drums being used in *fuji*, *juju*, highlife, and afrobeat. By implication, it means that an improvement in the Yoruba musical drum ensemble is likely to improve the economy of southwestern Nigeria through technical and vocational educational technology. The following gives the descriptive frequency chart.

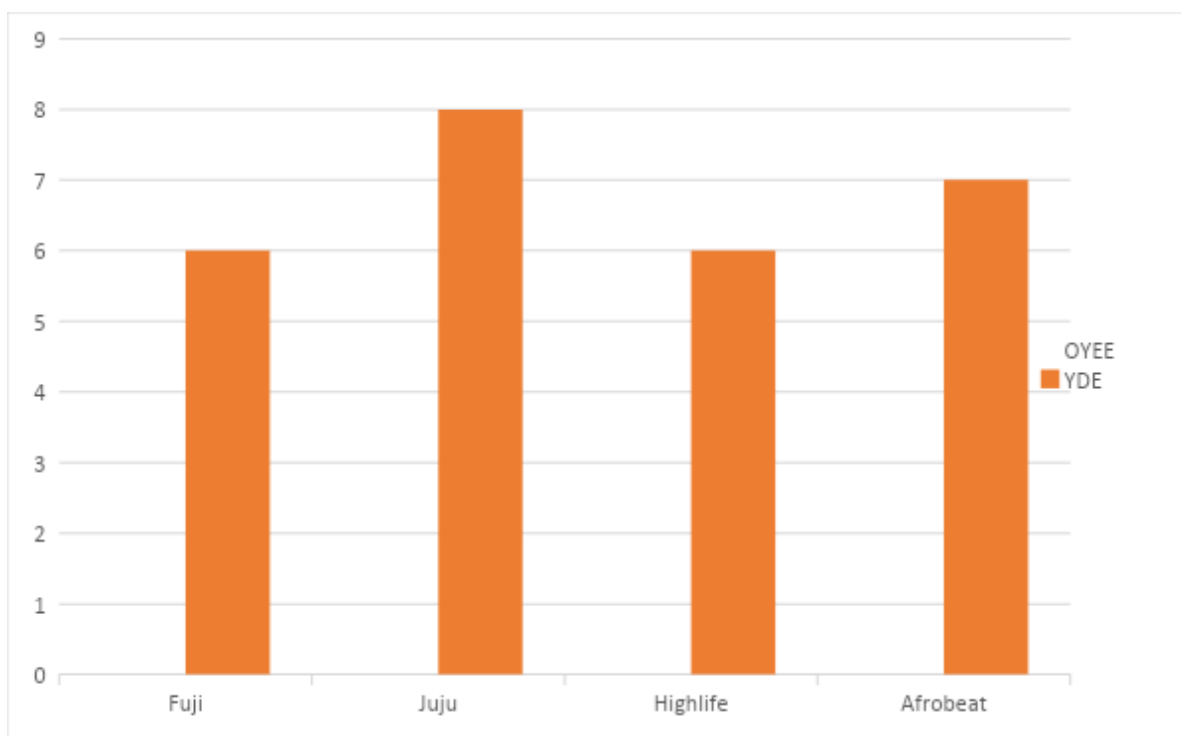


Figure II – Frequency table showing Yoruba drums vis-a-vis to other equipment.

Figure 1 depicts and illustrates the frequency and percentage of the Yoruba drum ensemble (YDE) in comparison with the Other Yoruba equipment ensemble (OYEE). Table 1 and Figure 1 show the following analysis; Fuji music has YDE 75% compare with OYEE 25%; Juju music has YDE 80% compare with OYEE 20%; Highlife music has YDE 75% compare with 25%; while Afrobeats music has YDE 70% compare with OYEE 30%. From this analysis, it shows that the majority of Yoruba musical ensembles possess a higher percentage of drums in their music presentation than other musical equipment.

Table II: Yoruba Drums Technology and Materials

YORUBA DRUMS	YORUBA DRUMS CONSTRUCTION MATERIALS	CONSTRUCTION PERIOD	CONSTRUCTION METHOD(S)	OBSERVATION REMARKS
Iyailu	Goat skin, osan string, cow skin, omọ wood, needle, leather, cowhide	5 days	Manual	Yoruba talking drum: pitch and word rhythm for poems and proverbs
Gangan	Animal skin, blade, scissors, omọ wood, leather, rag, water	4 days	Manual	Most common in Yoruba ensemble
Bata	Goat skin, omọ wood, iroko wood, water, bamboo wood	8 days	Manual	Use for popular music and ritual ensembles
Gudugudu	Goat skin, oḷe-skin, omọ wood, fetuses, egi, water	4 days	Manual	Sacrifice is required for construction and worship
Omele Abo	Omọ or Iroko wood, Tee-wood, water, flexible glues	3 days	Manual	Accompaniment
Omele Akọ	Omọ or Iroko wood, Tee-wood, saws, drills, vices,	3 days	Manual	Accompaniment



	clamps			
Gbedu or Satọ	Special skin, wood, blade, needles, knives, screwdrivers, maple, walnut, cherry wood	15 days	Manual	Sacrifice is required for construction
Akuba	Animal skin, wood, scissors, wrenches, planes, clamps, handsaw or power saw	3 days	Manual	Timeline rhythmic drum

Table II shows the various Yoruba drums, their construction materials, numbers or period of construction, and the adopted methods. The table reveals constant manual methods of the construction of Yoruba drums without any improvement in technology. The manual production methods show the number of days and unnecessary wasteful energy in the drums' construction by the technologists.

Discussion

Drums are membranophone musical instruments whose sounding element is a vibrating stretched membrane. Most drumheads are strong and moderately massive, allowing them to accept a strong impulse (beating or playing), and respond with a loud sound, with distortion or sound or damage to the instrument. With drum strength and carrying power, drums are marvelous for outdoor events like burials, weddings, housewarming, and general outdoor parties.

Most Yoruba drums consist of a goatskin head stapled over the top of extra-heavy tubes. The head or skin is soaked in water before application; this allows it to shrink as it dries, bringing it up to playable tension. The relationship between the drumhead with its natural resonances and the enclosed air below with its natural resonance and air cavity resonances work excellently together. It is very important that the method of attachment governs the tension on the skinhead. A simple drum construction involves soaking goatskin in a pan of water for an hour or more, removing it and wiping off excess moisture, and laying it over the end of the tube with the excess skin running down the sides. Using a heavy-duty stapler, staple the skin to the tube (wood) wall all around.

It is necessary to keep the stress uniform, pulling the skin well and tight and setting the drum to dry in the hot sun. The satisfying tone of the drum will change from hour to hour under the influences of heat and humidity. The challenge in the manual construction of the Yoruba drums is whether the attachment method allows the drum to be tuned and retuned after the skin has been applied and dried. The skin will inevitably loosen up over time, especially under heavy playing at outdoor parties. Therefore, there is a need for the application of technical and vocational education technology in the designing of Yoruba drums for economics. The relationship between the drumhead and the air enclosed beneath it is an essential factor in drum tone. An important aspect of tone lies in the balance of tensions within the head itself. Ideally, the head is tightened down in such a way that the pull is uniform all the way around the rim. Under unequal tension, weak fundamental or multiple irritating dissonant partials are possible. There is the challenge that the skin itself is not uniform in thickness or consistency.

Conclusion

This study reveals that the application of TVET in the technology of drum-making is still in its infancy. However, the Yoruba make use of several drums in their daily outings, parties, and special occasions. Therefore, to boost the economic potential of southwest Nigeria, it is of paramount importance to engage TVET for massive drums production.

Government support, collaborations, and proactive measures are essential for the effective integration of TVET in Music Technology education. Furthermore, more funding is required for more research and development in the field of music technology education; the establishment of more music technology departments. Music technology



departments through their institutions should partner with popular musicians to promote knowledge, technology transfer, and drum skill development.

Modern infrastructure is a necessary requirement to replace the current manual method of drum making. Infrastructure refers to a network of services that are all functioning as a system or a set of interested and mutually beneficial services provided for the improvement of everyday living of the populace (Ogbuozobe, 1997). Modern infrastructure acquisition will assist in the economic transformation of southwest Nigeria through an expansion of TVET institutions and departments.

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