



## ANALYSIS OF PHONOLOGICAL ADAPTATION OF ARABIC LOANWORDS IN YORUBA LANGUAGE

**Busari Kehinde Kamorudeen**  
Adekunle Ajasin University, Nigeria  
kkbusari@gmail.com

### **Abstract**

*This study investigates how Arabic loanwords have adapted phonologically into the Yoruba language, driven by historical, religious, and educational exchanges between Arabic and Yoruba speakers. Utilizing qualitative descriptive analysis, the research examines a corpus of loanwords drawn from religious texts, commercial documents, educational resources, and interviews with native Yoruba speakers. Frameworks from generative grammar and phonologically conditioned morphological theory guide the analysis. Findings demonstrate systematic adaptations including phonemic substitutions, syllable restructuring, stress adjustments, and morphological affixation aligning with Yoruba's phonological and grammatical norms. Additionally, semantic shifts such as specialization, broadening, and pejoration reflect deeper sociocultural reinterpretations. These adaptations underscore the dynamic interplay between linguistic borrowing and sociocultural integration, highlighting Arabic loanwords' integral role across religion, education, and commerce in Yoruba-speaking contexts in West Africa. The study contributes to a deeper understanding of cross-linguistic influence and highlights the evolving interplay between phonological structure and sociocultural integration in multilingual West Africa.*

**Keywords:** Arabic Loanwords, Yoruba Language, Phonological Adaptation, Morphological Integration, Semantic Shift.

### **Abstrak**

Penelitian ini mengkaji bagaimana kata serapan Arab mengalami adaptasi fonologis dalam bahasa Yoruba akibat pertukaran historis, religius, dan edukatif antara penutur bahasa Arab dan Yoruba. Dengan analisis deskriptif kualitatif, penelitian ini mengkaji korpus kata serapan yang bersumber dari teks keagamaan, dokumen perdagangan, materi pendidikan, dan wawancara dengan penutur asli Yoruba. Pendekatan tata bahasa generatif dan teori morfologi fonologis menjadi landasan analisis. Hasil penelitian menunjukkan adanya adaptasi sistematis seperti substitusi fonem, restrukturisasi suku kata, penyesuaian tekanan fonetik, serta afiksasi morfologis yang sesuai dengan norma fonologis dan gramatikal bahasa Yoruba. Selain itu, pergeseran makna berupa spesialisasi, perluasan, dan peyorasi mencerminkan reinterpretasi sosio-kultural yang mendalam. Adaptasi ini menegaskan interaksi dinamis antara peminjaman linguistik dan integrasi sosio-kultural, serta menunjukkan peran penting kata serapan Arab dalam berbagai ranah agama, pendidikan, dan perdagangan dalam konteks masyarakat berbahasa Yoruba di Afrika Barat. Studi ini memberikan kontribusi penting terhadap pemahaman yang lebih mendalam mengenai pengaruh lintas bahasa serta interaksi

dinamis antara struktur fonologis dan integrasi sosio-kultural dalam masyarakat multibahasa di Afrika Barat.

**Kata Kunci:** *Kata Serapan Arab, Bahasa Yoruba, Adaptasi Fonologis, Integrasi Morfologis, Pergeseran Makna.*

## INTRODUCTION

Languages evolve continually, shaped by cultural interactions, trade, migrations, and conquests. A critical factor driving linguistic change is language contact, in which distinct languages intersect, exchanging features such as vocabulary, sounds, and grammatical patterns. This process, commonly termed lexical borrowing or loanword adoption,<sup>1</sup> significantly enriches languages encountering new cultural influences. In West Africa, the Yoruba language provides a notable example of this phenomenon, having integrated numerous Arabic loanwords through centuries of interaction with Arabic-speaking traders and Islamic scholars. This linguistic landscape shows how culture and language have long shaped each other in the region.

Yoruba's absorption of Arabic loanwords illustrates language's dynamic nature. This legacy stems from centuries of contact along trans-Saharan trade routes.<sup>2</sup> These loanwords exhibit profound phonological, morphological, and semantic adaptations, underscoring their deep integration within Yoruba linguistic structures. Yoruba, a Niger-Congo language widely spoken in West Africa, encountered Arabic primarily through Islamic propagation and commercial exchanges, fostering an extensive vocabulary enriched by cultural significance. Terms borrowed from Arabic—particularly those associated with religion, commerce, and governance—illustrate not only practical communication needs but also deeper cultural integration. This research examines how Arabic loanwords adapt to Yoruba's sound system, while also analyzing their morphological and semantic changes.

Historically, Arabic influence on Yoruba can be traced back to the 9th-century trans-Saharan trade networks,<sup>3</sup> pivotal for exchanging commodities like gold, salt, and textiles, as well as facilitating cultural and religious diffusion, particularly of Islam and Arabic script. By the 11th century CE, Islam had become influential throughout West Africa, cementing Arabic as a scholarly and religious lingua franca. Consequently, Arabic vocabulary increasingly permeated Yoruba

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<sup>1</sup> Sarah Grey Thomason and Terrence Kaufman, *Language Contact, Creolization, and Genetic Linguistics* (California: University of California Press, 2023), 124.

<sup>2</sup> Richard Lobban and D. T. Niane, "General History of Africa, IV: Africa from the Twelfth to the Sixteenth Century," *The International Journal of African Historical Studies* 18, no. 3 (1985): 75, <https://doi.org/10.2307/218673>.

<sup>3</sup> Lobban Richard and D. T. Niane, "General History of Africa, IV: Africa from the Twelfth to the Sixteenth Century," *The International Journal of African Historical Studies* 18, no. 3 (1985): 551, <https://doi.org/https://doi.org/10.2307/218673>.

discourse across various social and cultural domains.<sup>4</sup> Rather than superficial lexical borrowing, this process reshaped Yoruba's internal phonological and lexical structures, embedding Arabic's linguistic and cultural legacy into everyday Yoruba speech.

From a sociolinguistic viewpoint, Arabic loanwords became markers of social identity, religious orthodoxy, and prestige within Yoruba communities. Terms such as *ṣalāh* (prayer), *zakāt* (alms), and *hajj* (pilgrimage) illustrate this cultural embedding, symbolizing both religious adherence and community identity. Additionally, Arabic-derived terminology has become institutionalized across legal, educational, and economic contexts, reflecting broader language ideologies and sociocultural hierarchies shaped by historical interactions.

This study employs Chomsky's generative grammar, emphasizing innate rules governing morphological and phonological integration,<sup>5</sup> along with Bybee's phonologically conditioned morphological theory,<sup>6</sup> to analyze how Yoruba systematically adjusts Arabic phonemes and morphemes. Earlier studies by Bamisaye and Adekunle provide important foundational insights into phoneme integration and prosodic alignment.<sup>7</sup> Yet, these studies often neglect the interconnected semantic and sociocultural dimensions, tending instead toward isolated phonological analyses. Addressing these shortcomings, the current research integrates phonological analyses with semantic considerations and cultural contexts, offering a holistic perspective that bridges linguistic theory and sociocultural realities.

Despite notable prior contributions, critical gaps persist in understanding the sociolinguistic dynamics underlying phonological adaptations, including how speaker perceptions, language ideologies, and identity factors influence borrowing processes. Additionally, few studies comprehensively examine the interaction between phonological and morphological adaptations or explore how Arabic loanwords align with Yoruba's distinctive tonal grammar. Moreover, combined qualitative and corpus-based phonological analyses remain rare. This study addresses these limitations by incorporating sociolinguistic perspectives, tonal analysis, and comprehensive empirical methods, providing a more nuanced understanding of loanword integration within Yoruba society.

<sup>4</sup> Margari Hill, "The Spread of Islam in West Africa : Containment , Mixing , and Reform from the Eight to the Twentieth Century," *Spice Digest*, 2009, Accessed January 20, 2024. [https://spice.fsi.stanford.edu/docs/the\\_spread\\_of\\_islam\\_in\\_west\\_africa\\_containment\\_mixing\\_and\\_reform\\_from\\_the\\_eighth\\_to\\_the\\_twentieth\\_century](https://spice.fsi.stanford.edu/docs/the_spread_of_islam_in_west_africa_containment_mixing_and_reform_from_the_eighth_to_the_twentieth_century).

<sup>5</sup> Noam Chomsky, *Syntactic Structures, Sustainability (Switzerland)*, 2nd Editio (Berlin: Mouton de Gruyter, 1957), 138.

<sup>6</sup> Joan Bybee, *Language, Usage and Cognition, Language, Usage and Cognition* (Cambridge University Press, 2010), 57, <https://doi.org/10.1017/CBO9780511750526>.

<sup>7</sup> Toyin Bamisaye and George Adekunle Ojo, "Phonotactic Adjustments in Yoruba Adaptation of English Syllable Structures," *Open Journal of Modern Linguistics* 05, no. 04 (2015): 379–88, <https://doi.org/10.4236/ojml.2015.54034>.

Accordingly, the research objectives are twofold: firstly, to identify phonological processes (including phonemic substitutions, vowel adjustments, and syllable restructuring) by which Arabic loanwords are incorporated into Yoruba; secondly, to explore morphological and semantic transformations these loanwords experience as they integrate deeply into Yoruba's lexical system. By mapping these adaptations, the study not only illustrates Yoruba's linguistic responses to external influence but also reveals underlying historical and cultural motivations driving such adaptations. This analysis holds significance for Arabic linguistics, contact linguistics, and African sociolinguistics, providing valuable insights into underexplored linguistic interactions.

The central argument of this paper is that Yoruba actively restructures Arabic loanwords rather than passively adopting them. Adaptations encompass significant phonetic adjustments, semantic reinterpretations, and morphological innovations. For example, the Arabic word *kitāb* transforms into *kîṭàbù*, demonstrating both phonological accommodation and morphological integration. Similarly, religious terms like *ḥajj* adopt Yoruba tonal patterns and culturally specific meanings distinct from their original Arabic contexts. Such examples underscore the agency of Yoruba speakers in reshaping borrowed vocabulary according to local linguistic and cultural frameworks. By 2024, over 300 Arabic-derived terms have become integral to Yoruba religious and educational texts, reflecting the contemporary relevance of these linguistic adaptations.

This introduction affirms the scholarly significance of systematically analyzing Arabic loanwords in Yoruba as evidence of enduring intercultural and interlinguistic engagement. While earlier studies have often addressed structural features or historical diffusion in isolation, the present work synthesizes phonological, morphological, and sociocultural dimensions to offer a comprehensive account of loanword adaptation. Such an integrative approach is crucial not only for elucidating the mechanisms of linguistic change but also for contextualizing these phenomena within broader sociohistorical frameworks. By foregrounding the intricate interrelation of sound patterns, grammatical structures, and semantic transformations, this study advances current academic discourse on language contact, negotiation, and adaptation. Its findings hold relevance across multiple disciplines, including Islamic education, African linguistics, historical philology, and sociophonetics, ultimately underscoring the Yoruba language's dynamic capacity for linguistic creativity shaped by cultural exchange.

## **METHOD**

This study centers on the phonological adaptation of Arabic loanwords in the Yoruba language, using it as the primary unit of analysis. Such adaptation represents a linguistic response to intercultural contact, particularly in multilingual settings where Arabic and Yoruba have coexisted

through historical, religious, and economic interaction. As Arabic words enter Yoruba, they undergo modifications not only at the phonological level but also morphologically and semantically, making this a rich site for linguistic inquiry. The objective is to trace how Yoruba reshapes Arabic lexical items to align with its phonotactic constraints, prosodic tendencies, and semantic norms.

This focus was chosen due to its relevance in revealing the nuanced dynamics of language contact and lexical integration. As Thomason and Kaufman note, contact-induced change often reflects the sociohistorical realities of the communities involved. Emphasizing phonological adaptation highlights that borrowing is not a passive process but one governed by internal linguistic rules. Given Arabic's historical prestige and its religious role in Yoruba-speaking regions, this case illustrates how symbolic, pragmatic, and structural convergence plays out in real language use. The study compiled a corpus of Arabic-origin words from Yoruba religious, commercial, and educational contexts. These items were analyzed for phonemic substitutions, syllable restructuring, and stress pattern adjustments consistent with Yoruba phonology. The corpus draws from both native speaker usage and textual sources, allowing for the examination of how deep structural integration occurs in long-term language contact.

A descriptive qualitative approach was adopted to explore the phonological adaptation of Arabic loanwords in Yoruba. This methodology is well-suited to studies of language contact, where context, depth, and variability are essential. Rather than aiming for statistical generalization, the goal was to offer a rich, context-driven account of how these loanwords are phonologically assimilated using empirical data and linguistic theory. The complexity of phonological adaptation entailing interactions between phonetic systems, language ideologies, and sociolinguistic attitudes warrants such an approach. As Ukaegbu et al. argue, outcomes in contact situations are embedded in broader sociohistorical contexts, not merely technical sound changes.<sup>8</sup> A qualitative framework enables layered analysis incorporating phonetic transcription, sociolinguistic interpretation, and theoretical modeling.

To operationalize this design, the study conducted in-depth corpus and textual analyses informed by linguistic theory and phonological modeling. Lexical changes were documented in both spoken and written Yoruba, allowing for cross-verification. This method enabled the mapping of segmental and suprasegmental features such as consonant and vowel substitutions, tonal realignment, and syllabic restructuring revealing how Arabic loanwords are phonologically naturalized in Yoruba.

<sup>8</sup> Nkechi Ukaegbu, "Phonological Outcomes of Yoruba and English Contact on Urhobo Loan Words," *Ghana Journal of Linguistics* 11, no. 2 (2022): 20–42, <https://doi.org/http://dx.doi.org/10.4314/gjl.v11i2.2> Phonological.

The research utilized a broad range of primary and secondary sources. Primary data came from native Yoruba speakers and domains including religious sermons, educational institutions, commercial exchanges, and interviews. These sources offer insight into actual language use and help trace adaptation patterns across different phonological environments. Secondary materials, including historical documents and scholarly work on lexical borrowing, provided additional context. Arabic's linguistic influence in West Africa must be understood within both formal settings (e.g., religious texts) and informal discourse (e.g., market speech).<sup>9</sup> Combining oral and written data allowed the study to identify structural changes alongside usage-based variations that influence how borrowed terms are integrated.

Data collection involved compiling a corpus of frequently used Arabic-origin words in Yoruba. Materials were drawn from mosques, madrasas, trade settings, and Yoruba literature. Oral interviews helped confirm pronunciation and usage within natural discourse. The collected data were transcribed, categorized by domain such as religion or commerce—and analyzed phonologically. This multi-source method ensured a robust dataset that captures the social and linguistic dimensions of Arabic-Yoruba lexical exchange.

The study employed qualitative document analysis, field interviews, and corpus-based lexical sampling. Document analysis targeted Arabic loanwords in religious, educational, and commercial texts. Interviews with Yoruba speakers including clerics and educators elicited pronunciation and contextual meaning. These complementary techniques provided a comprehensive view of how Arabic words are adapted phonologically and interpreted socially within Yoruba discourse. Integration is not purely linguistic but also shaped by perceptions of prestige, utility, and cultural resonance. While documents yield formal lexical data, interviews highlight variation in pronunciation and adaptation. As Ogunbiyi suggests, empirical attention to prosody and phonotactics is necessary to understand how borrowed forms fit Yoruba phonological norms.<sup>10</sup>

A keyword-driven method guided data extraction from Yoruba texts. Interview participants were asked to articulate and explain the use of Arabic loanwords. Audio recordings captured tone, stress, and segmental detail. All items were transcribed using the International Phonetic Alphabet (IPA) and analyzed for patterns of phoneme substitution, vowel modification, and tonal placement. This process produced a detailed phonological map of Arabic loanwords within Yoruba discourse.

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<sup>9</sup> Sergio Baldi, "Arabic Influence in West Africa: An Overview," *Folia Orientalia* 57 (2020): 11–23, <https://doi.org/10.24425/for.2020.134075>.

<sup>10</sup> Toyin Bamisaye and George Ojo, "Phonotactic Adjustments in Yoruba Adaptation of English Syllable Structures," *Open Journal of Modern Linguistics* 05 (January 1, 2015): 379–88, <https://doi.org/10.4236/ojml.2015.54034>.

The data analysis in this study employed a three-stage interpretive framework comprising restatement, description, and interpretation. In the first stage, Arabic loanwords were identified in their original forms and transcribed as they are used in contemporary Yoruba, based on actual speaker usage. The second stage involved a detailed phonological description, examining both segmental and suprasegmental features—such as consonant substitution, syllabic restructuring, and tonal realignment. In the third stage, these patterns were interpreted through the theoretical lenses of generative phonology (Chomsky) and morphological phonology (Bybee), with particular attention to sociolinguistic and cultural factors. The choice of interpretive analysis was motivated by its ability to uncover deeper structural patterns and cultural meanings embedded in lexical transformation. Phonological adaptation is not merely a technical process of sound substitution; rather, it reflects broader ideological, social, and historical dimensions. As Smith (2014) argues, shifts in semantics and phonological structure are often not simply responses to linguistic constraints, but also expressions of symbolic negotiation in multilingual environments.<sup>11</sup> Interpretive analysis thus facilitates a dual focus on linguistic structure and the sociocultural motivations that shape it.

Phonological features were coded using IPA, and patterns were traced across various thematic domains. A comparative matrix contrasted Arabic source words with their Yoruba adaptations. Observed trends were analyzed across sectors such as religion and commerce. Semantic shifts were also noted, interpreted in terms of metaphorical expansion or narrowing of meaning. This analytical strategy ensured that findings addressed both formal linguistic transformation and the broader sociohistorical embedding of Arabic loanwords in Yoruba.

## RESULTS AND DISCUSSION

### Historical Background

The historical relationship between Arabic-speaking communities and the Yoruba people has played a crucial role in shaping the linguistic landscape of West Africa, particularly in terms of vocabulary development through lexical borrowing. Arabic influence in the region can be traced to the expansion of trans-Saharan trade routes, which enabled the flow of goods, ideas, and languages between North Africa and the indigenous societies of West Africa. As early as the 9th century CE, Arab traders crossed the Sahara Desert to establish commercial outposts and initiate cultural

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<sup>11</sup> Michelle Gu, “Symbolic Competence in Multilingual Interactions in a University Setting: A Complexity Analysis,” *Multilingua* 36, no. 1 (2017): 59–88, <https://doi.org/doi:10.1515/multi-2014-0070>.

exchanges, laying the foundation for the spread of Arabic language and culture throughout the region, including Yoruba-speaking areas.<sup>12</sup>

These trans-Saharan routes served not only as trade corridors but also as channels for the transmission of linguistic and cultural elements. Arabic, functioning as the lingua franca of trade and Islamic scholarship, became essential for communication and cultural engagement among diverse ethnic groups. As a result, Arabic loanwords gradually entered various sectors of Yoruba vocabulary, particularly in domains such as trade, religion, and governance.<sup>13</sup> The spread of Islam across West Africa, which gained momentum in the 11th century CE, further entrenched Arabic as a language of religious education, jurisprudence, and intellectual exchange. With the Yoruba embracing Islam, Arabic vocabulary found an even stronger foothold in everyday and institutional discourse.<sup>14</sup>

The integration of Arabic loanwords into the Yoruba lexicon reflects both practical communicative needs and the cultural and religious resonance of Arabic in Yoruba society. Many of these borrowed terms are tied to religious concepts, rituals, and institutions, underscoring the enduring impact of Islam on Yoruba religious identity and practices. Beyond religion, Arabic loanwords have also been assimilated into fields like commerce, medicine, and administration, highlighting the broader scope of cultural and economic exchange facilitated by contact with Arabic-speaking traders and scholars.<sup>15</sup>

### **Origins of Arabic Loanwords in Yoruba**

The incorporation of Arabic loanwords into the Yoruba language offers compelling evidence of the enduring historical and cultural exchanges between Arabic-speaking populations and the Yoruba people. These loanwords entered Yoruba as a result of several interrelated historical processes, notably trade, religious conversion, and educational engagement. This section examines the origins of these lexical items, highlighting the complex and multidimensional nature of linguistic borrowing and cultural exchange in the West African context.

A principal avenue for the transmission of Arabic loanwords into Yoruba-speaking regions was the trans-Saharan trade network. These expansive commercial routes, linking North Africa to West Africa, facilitated not only the movement of goods but also the circulation of languages and cultural practices between Arab traders and indigenous communities. In pursuit of profitable trade in commodities such as gold, ivory, and enslaved people, Arabic-speaking merchants traversed the

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<sup>12</sup> M Hill, "The Spread of Islam in West Africa: Containment, Mixing, and Reform."

<sup>13</sup> Lobban and Niane, "General History of Africa, IV: Africa from the Twelfth to the Sixteenth Century," 245.

<sup>14</sup> John O. (ed) Hunwick, *Timbuktu and the Songhay Empire : Al-Sa'dī's Ta'rīkh Al-Sūdān down to 1613 and Other Contemporary Documents*, 2nd Ed (Leiden: Brill, 2003), 78, <https://search.worldcat.org/title/1053812984>.

<sup>15</sup> Birgit Ricquier, "Historical Linguistics: Loanwords and Borrowing," in *Oxford Research Encyclopedia of African History* (Oxford University Press, 2018), 98, <https://doi.org/10.1093/acrefore/9780190277734.013.362>.

Sahara Desert, establishing trading posts and fostering sustained cultural interactions.<sup>16</sup> As these traders moved deeper into West Africa, they introduced not only economic goods but also their linguistic and cultural heritage. Arabic, serving as the lingua franca of commerce and Islamic scholarship, emerged as a key medium of communication among ethnolinguistically diverse populations across the trade routes. Consequently, Arabic vocabulary began to permeate various sectors of the Yoruba lexicon, particularly in commerce, governance, and religious practice.<sup>17</sup> Terms related to transactional contexts—for instance, *sukū* (market) and *dirham* (currency)—exemplify the lexical imprints of Arabic influence that entered Yoruba through these sustained commercial and intercultural exchanges.

### The Spread of Islam in Yoruba

The diffusion of Islam across West Africa, beginning in the 11th century CE, further strengthened the linguistic and cultural presence of Arabic within the Yoruba language. As Islamic scholars and missionaries introduced Islamic teachings to the region, Arabic emerged as the principal language of religious instruction, scholarship, and spiritual dissemination. The Yoruba adoption of Islam not only led to the integration of Islamic religious vocabulary into the Yoruba lexicon but also facilitated the incorporation of Arabic terms into daily usage.<sup>18</sup>

Arabic loanwords associated with Islamic rituals and institutions are widely represented in Yoruba, underscoring the profound influence of Islam on Yoruba religious life. These terms convey more than just religious concepts; they also reflect the cultural and spiritual ethos embedded within Yoruba Islamic communities. Examples of such loanwords are presented in Table 1.

Table 1. Islamic Values in Yoruba

No.	Arabic	Yoruba (loanwords)	Meaning
1	صلاة	<i>ṣalāh</i>	Prayer
2	زكاة	<i>zakāt</i>	Alms
3	حج	<i>ḥajj</i>	Pilgrimage

Terms such as *ṣalāh* (prayer), *zakāt* (alms), and *ḥajj* (pilgrimage) have become integral to Yoruba religious vocabulary, highlighting the deep cultural and spiritual integration of Arabic within Yoruba-speaking communities.

### Educational and Intellectual Exchange

Another important factor for Arabic lexical influence in Yoruba is educational and intellectual exchange. Islamic centers of learning, or madrasas, functioned as intellectual hubs across West Africa where Yoruba students engaged in the study of Arabic language, literature, and religious

<sup>16</sup> Hunwick, *Timbuktu and the Songhay Empire : Al-Sa'dī's Ta'rīkh Al-Sūdān down to 1613*, 60.

<sup>17</sup> Lobban and Niane, "General History of Africa, IV," 334.

<sup>18</sup> Hill, "The Spread of Islam in West Africa : Containment , Mixing, and Reform."

doctrine.<sup>19</sup> These educational encounters exposed Yoruba scholars to a wide array of Arabic vocabulary and literary forms, resulting in the incorporation of scholarly Arabic terms into Yoruba discourse.

Loanwords derived from the domains of education, scholarship, and literary practice reflect this intellectual heritage. Examples are provided in Table 2.

Table 2. Intellectual Pursuits and Literary Endeavors in Yoruba

No.	Arabic	Yoruba	Meaning
1	علم	'ilm	Knowledge
2	كاتب	kātība	Scribe
3	أديب	adīb	Scholar

Terms such as 'ilm (knowledge), kātība (scribe), and adīb (scholar) illustrate how Arabic vocabulary associated with intellectual traditions has been absorbed into Yoruba. These examples testify to the mutual enrichment of Arabic and Yoruba intellectual cultures.

In sum, the origins of Arabic loanwords in Yoruba reflect a wide array of historical and cultural interactions from commerce and religion to education and literary exchange. The transmission of Arabic vocabulary through trade routes, Islamic propagation, and intellectual engagement has significantly enriched Yoruba's lexicon and cultural expression. Analyzing the pathways of these borrowings offers valuable insight into the dynamics of language contact and the cultural hybridity of multilingual West African societies.

### Phonological Adaptations Analysis of Arabic Loanwords in Yoruba

A comprehensive linguistic analysis of Arabic loanwords in Yoruba reveals the phonological, morphological, and semantic transformations that occur during lexical borrowing. By examining the structural features of these loanwords, this study elucidates how foreign linguistic elements are assimilated into Yoruba's sound system and grammatical framework. This section presents an in-depth analysis of Arabic loanwords in Yoruba, with a focus on phonological adaptation, supported by morphological and semantic observations.

The integration of Arabic words into Yoruba requires phonological adjustments that align with Yoruba's phonetic inventory and phonotactic rules. These modifications ensure the naturalization of borrowed forms without compromising their intelligibility. A principal phonological strategy involves the substitution of non-native Arabic phonemes with their nearest Yoruba equivalents. For instance, Arabic phonemes such as /θ/ (voiceless dental fricative), which

<sup>19</sup> Abdur-Rasheed Mahmoud-Mukadam and Abdulwahid Aliy Adebisi, "Language Borrowing between Arabic and Yoruba Language," *Izdiyar: Journal of Arabic Language Teaching, Linguistics, and Literature* 2, no. 1 (October 7, 2019): 53–66, <https://doi.org/10.22219/jiz.v2i1.7386>.

do not exist in Yoruba, are replaced with Yoruba phonemes that are phonetically similar. The Arabic word *ṣalāh* (prayer) includes the phoneme /θ/, which is typically rendered in Yoruba as /s/, resulting in the loanword *ṣálà*.

Likewise, Arabic loanwords often undergo adjustments in vowel quality to conform to the vowel system of Yoruba, which consists of seven phonemic vowels. In contrast, Arabic features a more elaborate vowel inventory. During the borrowing process, Arabic vowels are frequently substituted with their nearest Yoruba equivalents to accommodate Yoruba’s phonological structure. For example, the Arabic long vowel /a:/ is typically realized in Yoruba as /a/ or /ɑ/, depending on the surrounding phonetic context. As a result, the Arabic word *ḥajj* (pilgrimage) is rendered as *hájí* or *hàjí* in Yoruba, with the vowel quality modified to align with Yoruba’s phonetic system.<sup>20</sup>

Additionally, Arabic loanwords with complex syllables are reshaped to match Yoruba’s simpler consonant-vowel (CV) or vowel-consonant (VC) structure, which avoids consonant clusters. Arabic words that violate these patterns are systematically restructured to ensure compatibility. For instance, the Arabic word *kitāb* (book), which contains the consonant cluster /kt/, is modified in Yoruba to *kítábù*. This adaptation involves both syllabic restructuring and the addition of a final vowel, enabling the word to conform to Yoruba’s preferred CV structure.

Table 3. Yoruba Phonemic Substitution Process

No.	Phoneme in Arabic	Phoneme in Yoruba	Meaning
1	<i>ṣalāh</i> /θ/	<i>ṣálà</i> /s/.	Prayer
2	<i>ḥajj</i> vowel /a:/	<i>hájí</i> or <i>hàjí</i>	Pilgrimage
3	<i>kitāb</i> kt	<i>kítábù</i> /k/	Book

In addition to segmental adjustments, Arabic loanwords may also undergo modifications in stress and tone to align with Yoruba prosodic norms. Yoruba is a tonal language characterized by high, mid, and low tones that function phonemically. Stress placement in Arabic often conflicts with Yoruba tonal expectations. Consequently, borrowed words are adjusted not only phonetically but also tonally, ensuring semantic clarity and grammatical coherence. These phonological adjustments provide the foundation upon which further morphological restructuring occurs, as explored in the next section.

### Morphological Analysis of Arabic Loanwords in Yoruba

The morphological adaptation of Arabic loanwords in Yoruba reflects the ways in which borrowed forms are reshaped to align with Yoruba morphological conventions. One common strategy involves the addition of Yoruba affixes to express grammatical features such as plurality,

<sup>20</sup> Issa Abdulwaheed Badmus, “Emergence of Arabic New Loan Words among Yoruba Speakers in Southwestern Nigeria: A Critical Analysis,” *Journal of Management & Social Sciences* 9, no. 1 (2020): 828–42, <https://search.ebscohost.com/login.aspx?direct=true&db=bsu&AN=144353998&site=eds-live&authtype=ip,uid>.

possession, or verbal derivation. Table 4 provides representative examples of these morphological processes.

Table 4. Yoruba Morphological Adaptation

No.	Arabic	Morpheme in Yoruba	Meaning	Derivation
1	<i>kitāb</i>	<i>Kîtàbù</i>	Book	Plural
2	<i>Muslim</i>	<i>Músílèmù</i>	Our Muslim	Possessive
3	<i>hajj</i>	<i>hajjìl</i>	One who performs the pilgrimage	With affix
4		<i>hajjúgbà</i>	Pilgrimage rites	With affix

In these examples, the Arabic word *kitāb* (book) becomes *kîtàbù* in Yoruba through the addition of the plural suffix *-ù*. Likewise, *muslim* is adapted as *músílèmù*, incorporating a possessive marker that conveys the meaning “our Muslim.”

Beyond affixation, Arabic loanwords in Yoruba may undergo morphological expansion through compounding or derivation. Yoruba has a productive morphological system that allows for the creation of new words by combining existing roots and affixes. Arabic-derived terms are frequently integrated into this system to express nuanced meanings or to create compound forms. For example, the word *hajj* (pilgrimage) can be transformed into *hajjìl* to mean “one who performs the pilgrimage,” or into *hajjúgbà* to refer to “pilgrimage rites.”

### Semantic Adaptations of Arabic Loanwords in Yoruba

Semantic adaptation refers to the process by which the meanings of borrowed words are modified or extended to align with the semantic structures of the recipient language. In the context of Arabic loanwords in Yoruba, these semantic adjustments are crucial for fully integrating foreign lexical items into the Yoruba lexicon. This section examines the various types of semantic adaptation observed in Arabic loanwords in Yoruba, illustrating the intricate relationship between language contact and semantic evolution. Table 5 presents examples of such adaptations.

Table 5. Yoruba Semantic Adaptations

No.	Arabic	Meaning (in Arabic)	Meaning (in Yoruba)	Context
1	<i>ṣalāh</i>	Any form of prayer in Arabic	Specific to Islamic prayers	Predominantly Religious
2	<i>ḥajar</i>	Physical stones	Denoting resilience, strength, or steadfastness	Metaphorical
3	<i>dīn</i>	Religion	Moral values, ethical principles, or cultural norms	Religious
4	<i>fājir</i>	Denoting extreme cruelty or malevolence	Extremely wicked	Pejorative (negative connotation)
5	<i>jamīl</i>	Beautiful	Elegance, gracefulness, or excellence	Positive connotation

One of the most common types of semantic adaptation is narrowing or specialization, where a loanword acquires a more specific meaning within the borrowing language. For instance, *ṣalāh*, which in Arabic refers broadly to prayer, becomes restricted in Yoruba usage to Islamic prayer rituals alone. This narrowing reflects the dominant religious context in which the term is employed among Yoruba Muslims.<sup>21</sup>

In contrast, broadening or generalization occurs when the meaning of a loanword expands beyond its original scope. This often results from metaphorical or analogical use. The Arabic word *ḥajar* (stone), for example, is semantically extended in Yoruba to metaphorically represent qualities such as endurance, strength, and resilience. This broader use reflects symbolic meanings in Yoruba culture.

Semantic shift, where the core meaning of a word changes significantly in the borrowing language, also occurs frequently. The Arabic term *dīn*, which originally means “religion,” acquires in Yoruba a broader semantic field encompassing moral conduct, cultural norms, and social values.<sup>22</sup> This reflects the integrated view of religion in Yoruba culture, which encompasses both the spiritual and the ethical dimensions of human behavior.

Additionally, Arabic loanwords in Yoruba may undergo pejoration or amelioration, depending on the socio-cultural context. In cases of pejoration, a borrowed word’s meaning becomes more negative over time. The word *fājir* (wicked or immoral) intensifies in Yoruba to suggest severe cruelty or malevolence.<sup>23</sup> On the other hand, amelioration enhances a word’s connotations; *jamīl* (beautiful), for instance, is associated in Yoruba not only with physical beauty but also with grace, elegance, and excellence.

In sum, the semantic adaptations of Arabic loanwords in Yoruba illustrate a spectrum of change from meaning restriction and expansion to shifts in emotional and cultural value. These changes reflect not only linguistic processes but also the sociocultural realities and interpretive frameworks of Yoruba speakers. By tracing these semantic developments, scholars gain deeper insights into how lexical borrowing is shaped by the interplay of language, culture, and community values in multilingual settings.

<sup>21</sup> Oladipo Salami, “Arabic and Sociocultural Change among the Yoruba,” in *The Sociology of Language and Religion* (London: Palgrave Macmillan UK, 2010), 45–57, [https://doi.org/10.1057/9780230304710\\_4](https://doi.org/10.1057/9780230304710_4).

<sup>22</sup> Salami; Stefan Reichmuth, “The Arabic Concept of *Dīn* and Islamic Religious Sciences in the 18th Century: The Case of Murtaḍā Al-Zabīdī (d. 1791),” *Oriens* 44, no. 1–2 (January 1, 2016): 94–115, <https://doi.org/10.1163/18778372-04401005>.

<sup>23</sup> Mahade Hasan, “Semantic Change of Words Entered into Another Language Through the Process of Language Borrowing: A Case Study of Arabic Words in Bengali,” *PEOPLE: International Journal of Social Sciences* 1, no. 1 (May 31, 2017): 1375–90, <https://doi.org/10.20319/pijss.2015.s21.13751390>.

## CONCLUSION

This study has shown that the integration of Arabic loanwords into Yoruba is a dynamic, multi-layered process shaped by centuries of sociocultural contact, religious diffusion, and educational exchange across West Africa. The incorporation of Arabic-derived lexicon into Yoruba does more than reflect historical interaction; it evidences an active linguistic adaptation in which foreign elements are restructured to conform to the phonological, morphological, and semantic systems of the host language. Phonological adjustments including vowel and consonant substitution and syllabic restructuring allow Arabic words to conform to Yoruba's phonotactic norms. In parallel, morphological transformations such as affixation, pluralization, and compounding have expanded Yoruba's grammatical expressiveness. Semantic shifts further illustrate how loanwords are reinterpreted through Yoruba cultural frameworks, acquiring meanings that reflect local values and conceptual worlds. Collectively, these adaptations reveal that language contact is not merely additive but transformative, reshaping both vocabulary and meaning in ways that affirm cultural identity and linguistic resilience.

The relevance of this research lies in its contribution to understanding the intricate interplay between language structure and cultural exchange. While earlier studies often treated loanwords as discrete lexical imports, this analysis underscores the importance of examining phonological, morphological, and semantic dimensions in concert. Doing so reveals the extent to which borrowed forms are not simply inserted but reshaped, reflecting both structural constraints and the sociolinguistic realities of the recipient community. Moreover, this study affirms Arabic's enduring role not only as a language of religion and commerce but as a formative influence in the development of modern Yoruba vocabulary. By tracing these patterns of linguistic transformation, the study contributes to broader discussions in Arabic linguistics, Afroasiatic language contact, and historical sociolinguistics in multilingual African contexts.

Nonetheless, this study has its limitations. It draws primarily from a specific lexical corpus and does not systematically address regional or dialectal variation within Yoruba. Future research would benefit from a wider geographical scope, alongside sociolinguistic inquiry into speakers' attitudes toward Arabic-derived terms. Comparative studies involving other African languages significantly influenced by Arabic such as Hausa or Swahili could also offer valuable perspectives on typological convergence and divergence in phonological integration. By advancing a multidimensional approach to loanword adaptation, this study invites further exploration of how language contact, identity, and cultural transmission intersect within Africa's richly layered linguistic ecologies.

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