

AN AUTO SEGMENTAL ANALYSIS OF SYLLABLE STRUCTURE PROCESSES IN TÀRÓK

Mwamichit Charity BAMISAYE and Kamar Adewale RAFIU

University of Ilorin

mwamichit.charity@gmail.com

adewale@unilorin.edu.ng

Abstract

This study analysed syllable structure processes in Tàrók, a Central Nigerian language under the Niger-Congo phylum, spoken predominantly in Langtang North Local Government Area of Plateau State. Whereas only a few almost obsolete phonological research literature in the language exists, which had not given full attention to syllable-based processes in the language, which had made it difficult to identify core syllable boundary and the phonological environments that permitted or prohibited certain syllable sequences, this study aimed to address these shortcomings by investigating the role of phonological processes on syllable combination in Tàrók words. The study employed an auto-segmental framework to analyse the syllable processes in Tàrók. The study used a qualitative research method of data collection through oral interviews with five (5) native speakers of Tàrók. The study used a structured questionnaire and an audio recorder as research instruments. The study found that evidence from vowel elision, consonant deletion and epenthesis demonstrated the existence of syllable structure processes in Tàrók. The study concluded that syllable structure processes contributed to individual understanding of the internal structure of the syllable structure types in the language and the manner in which these processes influence the realisation of syllable patterns in connected speech. The study recommended further research on syllable structure processes in the language and other African languages in order to incorporate a more scientific approach to phonological study of syllable structure, especially with the introduction of tools for linguistic analysis and the incorporation of Artificial Intelligence (AI) into research.

Key words: Syllable structure, Phonological processes, Auto-segmental, Tàrók

Introduction

The syllable is a phonetic or phonological unit to which linguists have continued to give attention as a result of its significant role in the formation of words. It is a linguistic unit that is formed from the combination of two or more sound segments. In light of this, syllables are built into different structures to form words or groups of words. Therefore, syllable structures refer to the various syllable types that exist across languages, the most common of which is the CV (Consonant plus Vowel) type. In language, the combination of two or more syllables results in syllable structure processes, where syllables can be modified through phonological processes such as deletion, insertion, and labialisation.

One of the key arguments in the linguistic literature is whether a syllable should be seen as a phonetic or phonological unit, that is, whether a syllable should be seen as a sequence of sounds containing one peak of prominence in terms of a phonetic unit or be treated independently as units of widely different distribution. In view of these contrary perspectives, Den Ouden (1995) made a distinction between a phonetic syllable and a phonemic or phonological syllable. He explained that the former (phonetic syllable) is claimed to be the actual rhythmical unit that we can hear, whereas the latter (phonological syllable) has a number of phonological functions. This means that syllable as a phonetic unit is concerned with the actual perception of a unit of sound, while as a phonological unit, syllable can be used to account for phonological functions such as phonological processes, phonotactics and prosody.

In addition, Yavaş (2011) defines a syllable as “a phonological unit consisting of segments around a pivotal unit or vowel-like sound, which is known as the nucleus.” To illustrate this point, the syllable consists of three phonetic parts, namely the onset, the nucleus and the coda. The onset position is occupied by consonants, the nucleus is filled by a vowel, and in some cases a syllabic consonant, while the coda position is occupied by a consonant. The nucleus and coda form the rhyme of the syllable, and it is only the rhyme which is relevant for phonological functions of the syllable as posited in Yavaş (2011). This is mainly because stress and tone assignment seem to neglect the segments that make up the onset and depend only on what comes after that (Den Ouden, 1995).

From the perspective of the syllable as a phonological unit, following Den Ouden (1995), this study assumes that it is possible to analyse the syllable as the basis for the operation of most phonological processes in Tàrók. It is against this background that the auto-segmental analysis of syllable structure processes in Tàrók is carried out in order to establish whether or not certain phonological processes depend on the syllable structure of words in the language.

Statement of the Problem

There has been an inadequate description of syllable typology in the Tarok language, with most existing literature on the subject already obsolete. A review of previous research efforts in the language has discovered errors in areas of syllable division and word division due to an inadequate description of the language in existing literature. This has

made it difficult to determine syllable boundaries, most especially by learners, speakers and other users of the language. Students of language, as well as researchers, have only a little literature for reference on the Tarok syllable, creating gaps in advancing understanding of the language.

Literature Review

Previous studies on syllable structure processes in Tàrók, such as Longtau (1993), have not fully treated syllable-based processes of the language. In other languages, Emenanjo (2015) revealed that the syllable structure of a traditional monolingual native Igbo speaker consists of the vowels and syllabic nasals as the tone-bearing units. Unubi and Ikani (2019) analysed Igala syllables and phonotactics. The study found that Igala has three syllable types, which are V, VC and CV, with the pattern of distribution from monosyllabic to polysyllabic words. Ugechi and Ayagah (2021) investigate the syllable structure of Tiv and observe that nine syllable types, namely V, N, VV, CV, VC, VVC, CVV, CVC, and CVVC shapes exist in the language. Abednico (2021) examined vowel phonological processes affecting syllable structure in Tshivenda. The study found that vowel elision, vowel epenthesis and glide are phonological processes that shape syllable structure in the language.

In Tàrók, Sibomana (1980) published an article on the principles of Tàrók phonology and identified three syllable types in Tàrók to include (V), CV, and CVC. However, he did not include the syllabic nasal (N), which also constitutes a syllable in Tàrók. Longtau (1993) carried out a study on formal Tàrók phonology. Longtau described the work as “a write-up” as it did not provide a full account of Tàrók phonology but served as a supplement to earlier works. He discovered four (4) syllable patterns, which included V, N, CV, and CVC, seven (7) vowel phonemes, and twenty-nine (29) consonant phonemes. Longtau (2008) analysed the Tàrók language in relation to its basic principles and grammar. This work is an advancement of Longtau (1993) since the findings are similar about the vowel and consonant inventories, syllable structure and tone system. However, Longtau discovered more phonological processes such as prenasalisation, deletion and shortening. The major areas of departure are the discussion of Tàrók orthography, syntactic categories such as nouns, verbs, and adjectives, and sociolinguistic considerations of the language.

El-Kanemi and Gampyal (2022) provided a description of Tàrók phonology using a descriptive approach as the analytical procedure for describing the phonological inventory and suprasegmental elements such as vowels, consonants, and tonal systems of the language. The study discussed only three phonological processes, namely vowel elision, consonant deletion and assimilation, which revealed that they have not fully treated syllable structure processes in Tàrók.

Bamisaye (2024) examined phonological development in child acquisition of the Tàrók language. The study revealed the differences between the child's speech and that of the adult speakers of Tàrók with emphasis on phonological processes such as consonant deletion, vowel deletion in reduplication, voicing, stopping, fronting and substitution.

As can be seen from the previous studies, syllable structure processes have not been fully explored in Tàrók. As a result, this aspect of Tarok phonology is understudied and has become imperative to pay more attention to it, as this study finds it timely to do so in order to advance the study of the Tàrók language and give it the linguistic status it deserves among other languages of the world.

Theoretical Framework

This study adopts Autosegmental Phonology (Goldsmith, 1976) as its theoretical framework to analyse syllable structure processes in Tarok. The tenet or belief of this theory, as posited in Katamba (1989), is that “phonological representations are viewed as consisting of several independent levels that are linked to each other.” In light of this, syllable structure can be represented as two constituents, namely onset and rhyme, where the rhyme consists of the nucleus and the coda. The rationale behind the choice of this theory lies in the fact that it clearly accounts for the various phonological tiers that make up the syllable and treats them as independent segments linked by association. Other proponents of the autosegmental phonological model include Kiparsky (1979), Halle and Vergnaud (1980), Steriade (1982) and Harris (1983). Autosegmental phonology proposes a binary partition of the syllable (onset and rhyme), but for phonological purposes, the rhyme and not the onset is relevant to the phonological description of language. Katamba (1989) reveals that “with the binary partition, the autosegmental approach reveals that a well-formed syllable can contain no onset, but a well-formed syllable can't exist without a

rhyme.” Katamba also points out that the rhyme is always obligatorily present in all syllables in all languages; what differs from language to language are the elements that form the rhyme. However, it is typical of the vowel to occupy the nucleus position in the rhyme, but sometimes a consonant, such as liquids and nasals, may fill that position. Accordingly, this study demonstrates the phonological relevance of the rhyme in the analysis of syllable structure processes in Tàrók, showing its significant role in the well-formedness of the syllable structure and how it is modified in the syllable structure processes.

Finally, Autosegmental phonology has not been used to account for syllable structure processes in Tàrók as far as this study has investigated. However, it has been used in other related Niger-Congo languages in Plateau State to account for processes like epenthesis in Fula (Odden, 2005) as well as Berom tones and tonal processes (Ukaegbu, Omachonu & Odii, 2017). With its autonomous-based approach, it is assumed that Autosegmental phonology can effectively handle the observed syllable structure processes discussed in this study.

Methodology

This study adopted a qualitative research design of the descriptive type. The data analysed in this study were collected from five (5) purposely selected native speakers of Tàrók whose age range falls within 45 and 50 years. The choice of the informants was informed by the fact that they are not only native speakers of Tàrók, but have also lived in the language community for at least forty-years. Similarly, the researcher who is also a native speaker of Tàrók used her linguistic knowledge and native speaker's intuition in the data collection process as well.

The research materials used included a structured questionnaire and a wordlist. An audio recorder device was also used to record the speeches of the informants. The questionnaire contained one-hundred (100) phrases extracted from the Questionnaire for West African Linguistic Society, while the wordlist consisted of one hundred (100) words from the University of Ilorin Wordlist. After data collection, the researcher carried out a transcription of the words and phrases to observe cases of sound similarity and differences. Finally, the study used the descriptive method of data analysis. Through the descriptive

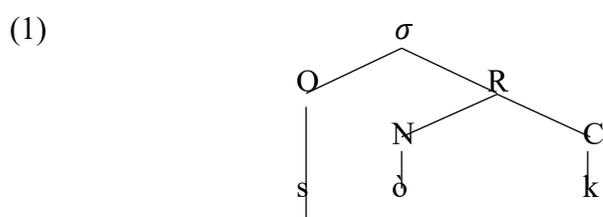
approach, the various syllable structure processes examined are well captured and analysed based on the set theory for the study.

Results and Discussion

In this section, the study examined the syllable structure of Tàrók and provided evidence from various phonological processes that showed the existence of syllable-based processes in the language, which at the same time modify the Tàrók syllable structure. Similarly, it showed how the autosegmental phonological approach accounts for the binary branching of the syllable to include the onset position and the rhyme, which further branched into the nucleus and the coda, thus revealing the internal structure of the syllable through the association lines that link the various autonomous tiers.

Tàrók syllable types

The Tàrók syllable structure is classified into four (4) types. The syllable may consist of just the nucleus, usually the vowel (V), the onset and nucleus (CV), the onset, peak and coda (CVC), and the syllabic nasal (N). In Tàrók, the nucleus position of the syllable is usually occupied by a vowel, and occasionally the syllabic nasal, while the onset and coda positions are occupied by consonants. In line with the proposal of autosegmental phonology, the binary branching of the syllable was represented with some examples in Tàrók as shown in (1).



In (1), the syllable (σ) in Tàrók exhibits the binary branching as represented by the word, *sòk* “to name”. Accordingly, the consonant [s] occupies the onset (O) position, the rhyme (R) divides into the nucleus (N), which is occupied by the vowel [ò], and the coda (C), occupied by the consonant [k].

A critical observation of the various syllable types reveals that the (V) syllable is either a word composed of a single vowel or it can pattern with other syllable types, as shown in (2).

(2)	Word	Syllable pattern	Gloss
-----	------	------------------	-------

a.	í	V	“we”
b.	á	V	“he/she/it”
c.	ìvá	V.CV	“dog”
d.	akát	V.CVC	“debt”

In (2), the V syllable can be seen as a word, as demonstrated in (2a) and (2b). Similarly, it can pattern with a CV syllable (2c) and a CVC syllable (2d).

The second syllable type, which is the CV syllable, is composed of an onset and nucleus without a coda. The onset position was occupied by consonants, while the nucleus was filled by vowels. This type of syllable can occur in monosyllabic, disyllabic and polysyllabic words as shown in (3).

(3)	Word	Syllable pattern	Gloss
a.	má	CV	“to suck”
b.	àpé	V.CV	“moon”
c.	ìlágá	V.CV.CV	“cockroach”
d.	shákshílák	CVC. CV.CVC	“to tire out”
e.	̀nkararo	N.CV.CV.CV	“a kind of shrub”

As observed in (3), the CV syllable can occur in a monosyllabic word (3a) and a disyllabic word (3b). It can also appear in polysyllabic words (3c, d, and e). It is also observed that in these words, the CV syllable type can pattern with the V syllable (3b) and (3c), the CVC syllable (3d) and the N syllable (3e).

The third syllable type in Tàrók is the CVC syllable, which comprises the onset, nucleus and coda. This type of syllable can occur in monosyllabic, disyllabic and polysyllabic words as represented in (4).

(4)	Word	Syllable pattern	Gloss
a.	fak	CVC	“to pamper”
b.	ìchəl	V.CVC	“silk cotton tree”
c.	̀nchat	N.CVC	“flea”

d. dákídírí CVC.CV.CV “bitter taste”

In (4), the CVC syllable occurs as a monosyllabic word (4a). It can also pattern with the V syllable and N syllable in disyllabic words, as in (4b) and (4c) respectively. Finally, it can occur in polysyllabic words as seen in (4d), where it patterns with the CV syllable. In general, the CVC syllable can occur with other syllable types in all the word patterns.

The syllabic nasal (N), which is the fourth syllable type in Tàrók, can be realised as a word composed of a single nasal consonant. On the other hand, it can occur with other syllables in words, as seen in (5).

(5)	Word	Syllable pattern	Gloss
a.	n/m	N	“I”
b.	ń/̀m̀	N	“yes”
c.	ń/ǎ	N	“what!”
d.	ńda [nda]	N.CV	“today”
e.	̀m̀man [mman]	N.CVC	“salt”

In (5), the syllabic nasal is seen as a morpheme meaning “first person singular subject pronoun” realised with Mid tone (5a); it could mean “yes” realised with Low tone (5b); it could also mean “what!”, and in this case it carries Rising tone (5c). The syllabic nasal (N) can equally occur with another syllable type, such as CV (5d), and CVC (5e). Having examined the four syllable types in Tàrók, the syllable structure processes which form the cardinal objective of this paper are examined in the next sub-section.

Syllable structure processes in Tàrók

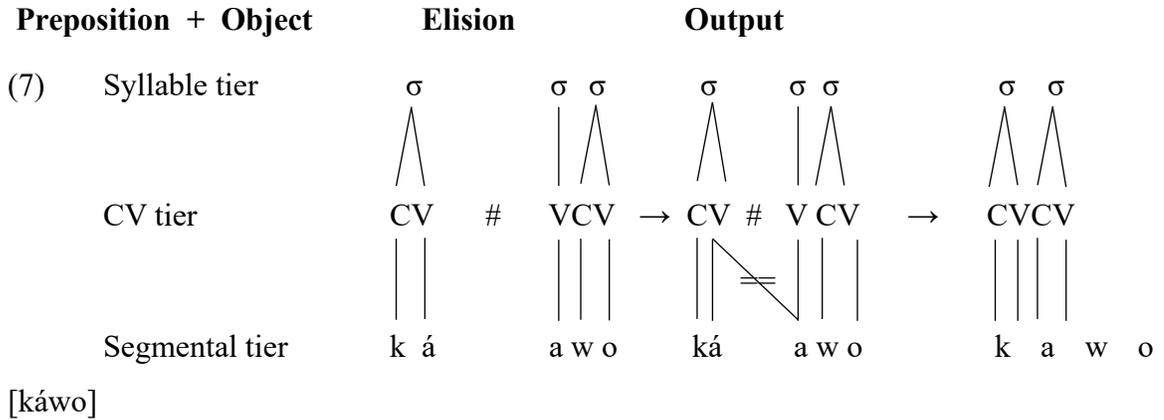
Syllable-based processes are phonological processes that modify the canonical structure of the syllable. This means that when two or more syllables are close to each other in connected speech, there is the likelihood for a segment to be inserted, deleted and so on. When this happens, the structure of the syllable is modified to conform to the process that takes place, as will be seen in Tàrók. The syllable structure processes examined in this paper are elision, deletion, consonant assimilation and prothesis.

Elision

Elision is a phonological process where a preceding or a following vowel at a word boundary is deleted due to the influence of the neighbouring vowel in a sequence of words or phrases. Elision occurs mostly in fast speech in Tàrók. The vowel of the prepositional particle *ká* “in/on” causes the elision of the following vowel as illustrated in (6).

(6)	Preposition + Object	Elision	Gloss
a.	ká [ka] + akúp [kákúp] in palm	kákúp [kákúp]	“in the bone”
b.	ká [ka] + awo [awo] in palm	káwo [káwo]	“in the palm”
c.	ká [ka] + akun [akun] on wood	kákun [kákun]	“on the wood”

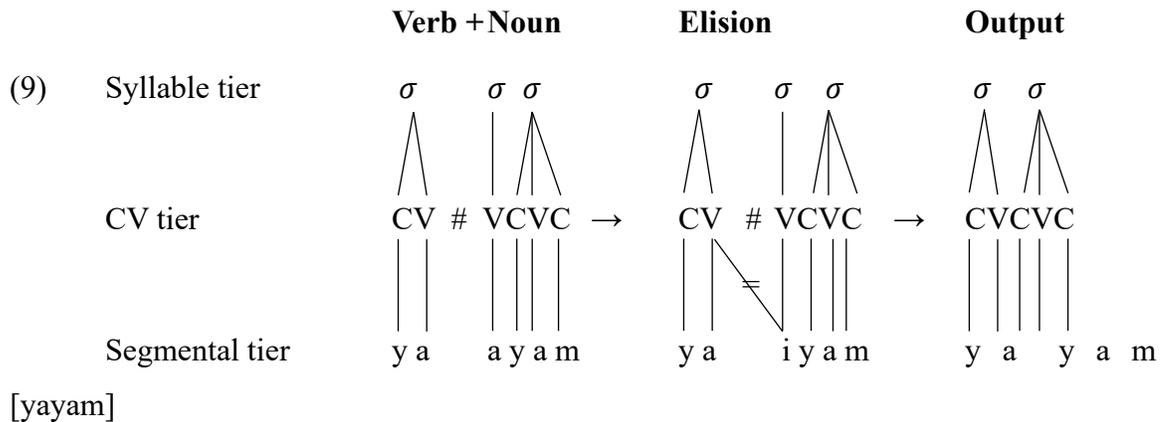
In (6), elision modifies the syllable structure of the shape VCVC to yield CVC as it affects the word, *akúpe*, “inside” (6a). This scenario also occurs in (6c), where the word *akun* “wood” with the VCVC pattern is reduced to CVC after elision. What this means is that the initial vowel of the word is elided as a result of the preceding vowel of the preposition particle *ká*. Similarly, the elision process modifies the syllable structure of the type, VCV, which occurs as a result of the loss of the initial V to yield a CV structure after elision has taken place. This is exemplified in (6b) where the word *awo*, “palm”, has a VCV syllable pattern and is reduced to a CV. An autosegmental account reveals the elision process in the syllable pattern of *káwo* “on the wood” as shown in (7).



In (7), there is the elision of the initial vowel of *awo* “wood”, which is indicated by the association line where the final vowel of *ká* ‘at’ delinks the initial vowel of *awo* “wood” with its skeletal tier and fills the position of the elided vowel. The process results in a CVCV structure after elision has taken place rather than a CVVCV structure. Elision can also occur in verb phrases, which occurs mostly in idiomatic expressions in Tàròk as seen in (8).

(8)	Verb	Object	Elision	Gloss
a.	yá [ya] see	+ iyám [iyám] rich	yáyám [yáyám]	“to be rich”
b.	fé [fé] listen	+ achú [aʃú] language	féchú [féʃú]	“to understand a language”
c.	fà [fa] appear	+ izór [izər] body	fàzór [fazər]	“to resemble”

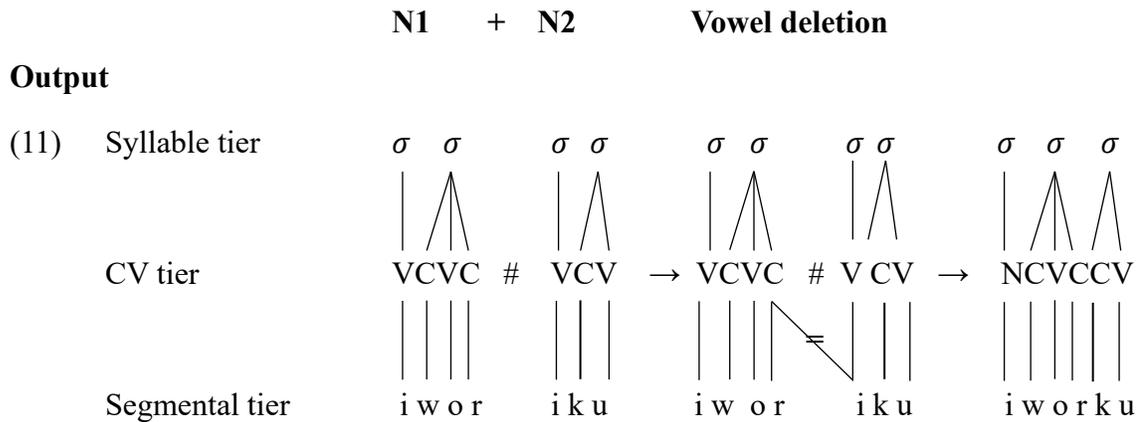
As seen in (8), the initial vowel of the nouns following the verb is elided, thereby modifying the syllable structure of the affected nouns in the output. For instance, *iyam* “rich” (8a) has VCVC syllable pattern, however, when elision occurs due to the preceding vowel of the verb, the syllable pattern becomes CVC in the elided form as can be seen in *yáyám* “to be rich” (8a). In (8b), the word *achu* “language” contains VCV but is reduced to CV after elision has taken place. The same scenario of elision is applicable to (8c). The autosegmental account of the elision process in (8a), for instance, is represented in (9).



As seen in (9), the elision of the initial /i/ of the noun *iyam* “rich” after it is delinked by the association line, which links to the final /a/ of the verb *yá* “see”. This alters the CVVCVC pattern of the verb phrase to CVCVC. In addition, elision can also be found in associative constructions or compound nouns involving a sequence of two nouns, as demonstrated in (10).

(10)	N1	+	N2	Elision	Gloss
a.	apé [apé] moon	+	ojòr [ojòr] Jukun	apéjor [apéjor]	“December”
b.	̀nrí [̀nrí] eating	+	̀iwú [̀iwú] eye	̀nríwú [̀nríwú]	“playfulness”
c.	̀iwór [̀iwór] caller	+	ikú [ikú] death	̀iwórkú [̀iwórkú]	“owl”

As can be seen in (10), the initial vowel of the following noun is elided before the final vowel of the preceding noun. For instance, in (10a), the initial [o] of *ojor* “Jukun” is elided before the final [e] of *apé* “moon”. However, elision in (10c) takes a different dimension where the preceding nouns end in a consonant. It is assumed in this case that elision still occurs because the initial vowel of the following nouns and the final consonants of the preceding nouns cannot co-occur in the elided form of the words, as seen in *̀iwórkú* “owl” (10c). The representation of the elision of the initial vowel of N2 before the final consonant of N1 is shown in (11).



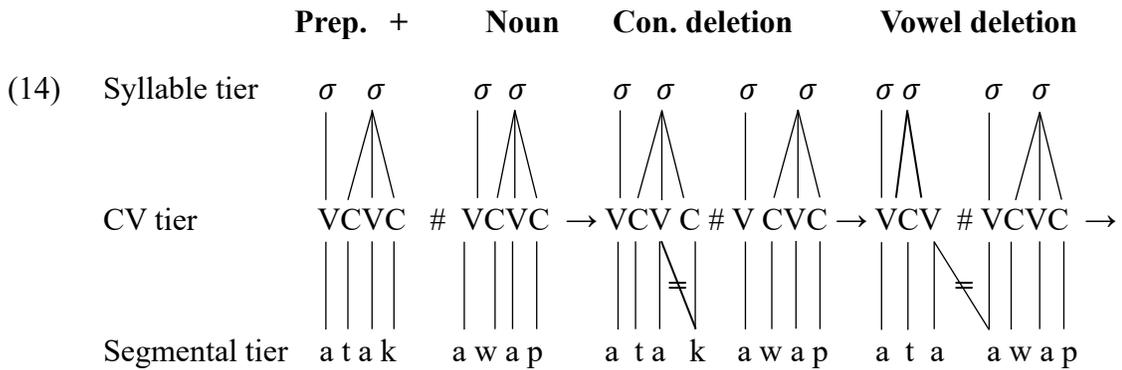
In (11), it is observed that the initial vowel /i/ of the N2 is deleted before the final consonant /k/ of the N1. This is indicated by the association line where the /i/ is delinked with its tier so as to alter the syllable pattern from VCVCVCV to VCVCCV. The rule for the deletion of the vowel is represented in (12).

(12) Underlying representation	/iwor/	+	/iku/
Vowel deletion	/iwor/	+	/ku/
Surface representation	[iworkú]		

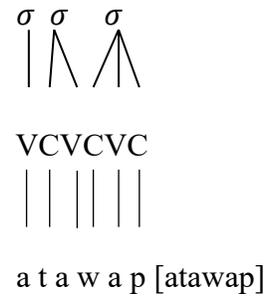
Consonants can also be deleted in order to alter the syllable structure. The consonant deletion process involves the loss of a consonant sound in a syllable structure in connected speech. In Tàrók, a coda consonant may be deleted due to fast speech or frequent usage of such expressions as seen in the prepositional phrase in (13).

	Preposition	+	Noun		Final consonant deletion
(13) a.	apál [apal]	+	akún [akun]	→	apákún [apakun]
	up		wood		'dish rack'
b.	atak [atak]	+	awap [awap]	→	atawap [atawap]
	place		grave		'graveyard'
c.	apál [apal]	+	m̀bín [mbin]	→	apám̀bín [apambin]
	up		ground		'earth'

In (13), the final consonants of the preceding words are deleted before the following words in the given expressions. It is interesting to note as well that consonant deletion, in some cases, can be triggered by the elision of the initial vowel of the following word, for instance, in (13a), the initial vowel of *akún*, ‘wood’, is deleted after the deletion of the final consonant of *apál*, ‘up’, has occurred. The same process is applicable to (13b); however, in (13c), there is no such vowel elision since the initial sound of the following word begins with a consonant /m/. The process of consonant deletion, which is followed by vowel elision, is represented in (14).



Output



As seen in (14), the process of consonant deletion first occurs before the vowel elision. Consonant deletion occurs within the CVC syllable of *atak* “up” as indicated by the association line, which delinks the final /k/ of *atak* “place” with its V tier, which is followed by vowel elision, which takes place across the syllable boundary where the association line delinks the initial /a/ of *awap* “grave.” As a result, the preceding /a/ then fills the position vacated by the initial vowel of the following noun *awap* in the output. The rule that accounts for such deletion of consonants and vowels is represented in (15).

(14) Underlying representation /atak/ + /awap/

Rule 1: Consonant deletion	/ata/	+	/awap/
Rule 2: Vowel deletion	/ata/	+	/wap/
Surface representation	[atawap]		

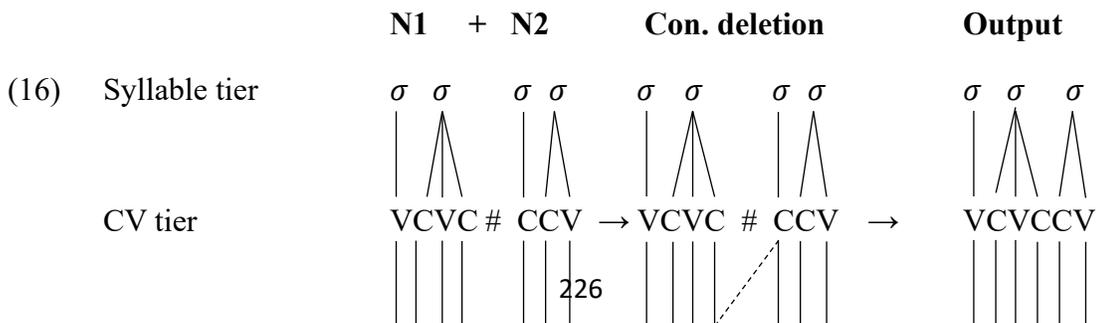
In (14), the explanation is that deletion rules are ordered in the underlying representation, thus consonant deletion first occurs before vowel deletion. It is assumed that the second rule (vowel deletion) triggers the first rule (consonant deletion) in order for the latter to be realised in the surface representation.

Consonant assimilation

In this syllable structure process, an initial consonant of a following word assimilates to the final consonant of the preceding word, as can be seen in (15)

(15)	a.	̀̀nap [nnap]	+	̀̀l̀ [nla]	→	̀̀naml̀ [nnamla]
		matter		speaking		‘speech/talk’
	b.	atak [atak]	+	̀̀r̀ [nra]	→	atagr̀ [ataŋra]
		place		sleeping		‘bedroom/matting’
	c.	atak [atak]	+	̀̀t̀m [ntə]	→	atangt̀m [ataŋtəm]
		place		sitting		‘sitting-room/seat’
	d.	̀̀l̀k [ulak]	+	̀̀nim [unim]	→	̀̀l̀ng̀nim [ulaŋnim]
		spoiler		man's premature child’		

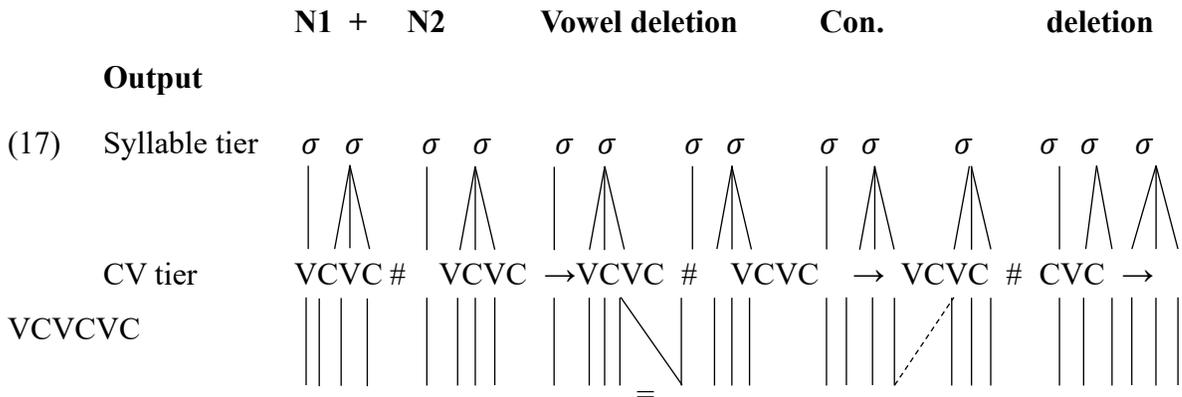
In (15), it can be observed that deletion of the final consonants of the preceding words triggers assimilation of the initial consonants of the following words. For instance, in (15a), the /n/ of ̀̀l̀, ‘speaking’, becomes /m/ after assimilation to assume the same place of articulation with the /p/ of ̀̀nap, ‘matter’, which is deleted in the output ̀̀naml̀, ‘speech/talk’. Similarly, in (15b), the assimilation involves the spreading of the place feature of /k/, which is velar, to the following alveolar /n/ as represented in (16).



Segmental tier a t a k n r a a t a k n r a a t a ŋ r a

In (16), the consonant /n/ assimilates to /ŋ/ through the spreading of the velar feature of the latter, as shown by the broken association lines, which results in homorganic assimilation where the /n/ becomes /ŋ/ as it assumes the same place of articulation with /k/, which is deleted in the output. Therefore, the surface form is realised as VCVCCV instead of a VCVCCCV pattern.

In (15d), however, the initial vowel /u/ of *ùnìṃ* “man” is deleted first, then the /n/ assimilates to the final /k/ of the first word *ùlāk* “spoiler”. The deletion of the /u/ occurs so as to make the /n/ closer to /k/, then homorganic assimilation takes place. This shows that consonant assimilation targets the closest consonant at the word boundary; the deletion of the initial vowel /u/ does not block the assimilation of the following consonant /n/ since it is closest to the word boundary. The fact that the deletion of the vowel /u/ occurs first before the assimilation of /n/ to /k/ is represented in (17).



Segmental tier u l a k u n i m u l a k u n i m u l a k n i m u l a ŋ i
m

In (17), the autosegmental representation shows the deletion of the vowel /u/ before the final /k/. This is indicated by the association line, which delinks the /u/ so as to make the /n/ assimilate to /k/. Thus, instead of having a VCVCCVC syllable pattern, the surface realisation becomes VCVCCV. The rule for deriving the two processes is represented in (18).

(18) Underlying representation /ulak/ + /unim/

In (19), the syllabic nasal /ŋ/ is inserted before *kám* “to be strong,” which changes the syllable pattern from CVC to NCVC. In this case, it is seen that prothesis can increase the number of syllable patterns in Tàrók. It is worthy of note that vowels can also be inserted at the initial of the verb to become a noun; however, epenthetic syllabic consonants and vowels have no regular patterns, as both can appear before a nominalised verb, as illustrated in (20).

- (20) a. mwál 'to be fat' òmwál [mmwál]/imwál [imwál]
 'fatness/fertile/plump'
- b. dóm 'to covet' òdóm [ndóm]/adóm [adóm] 'covetousness'
- c. chèn 'to walk' òchèn [ntʃèn]/achèn [aʃe]
 'journey/walking'
- d. kám 'to be strong' nkàm [ŋkàm]/ikàm [ikàm] 'strength'

As seen in (20), the syllabic nasal can take various shapes depending on the place of articulation of the initial consonant of the verb. Therefore, it is /m/ before bilabial /n/ before alveolar and affricate, and /ŋ/ before velar. The vowels /i/ and /a/, on the other hand, have no such restrictions.

Conclusion

In light of the above, this study discussed four syllable types in Tàrók. These are the V, CV, CVC and N syllables. It had also been established that these four syllable types can co-occur in monosyllabic, disyllabic and polysyllabic words to yield different syllable patterns. Therefore, we may have a monosyllabic word that is composed of patterns such as V.CV and V.CVC.

In the discussion of syllable-based processes in Tàrók, this study proved that certain phonological processes can alter the syllable structure due to the influence of speech sounds which affect each other at the word boundary. In this study, therefore, it was found that phonological processes such as elision/deletion, consonant assimilation and prothesis are phonological processes that alter the structure of syllables in Tàrók. Elision or deletion could affect a vowel or consonant, as the case may be. Consonant assimilation in some cases may precede vowel deletion in some words, as seen in the analysis. Also, prothesis as a type of epenthesis served to insert a vowel or consonant at syllable initial position. In

all, Autosegmental phonology has helped to show the onset and rhyme constituents of the Tàrók syllable structure, and with the aid of this approach, it was also found that syllable-based processes occur in the domain of the rhyme and not the onset constituent of the syllable.

In all, syllable structure processes in Tàrók, which form the focus of this study, have revealed significant features about the syllable types that exist in the language. In light of this, there is a tendency for syllable shapes to conform to the restriction imposed by phonologically conditioned environments, which can alter the shapes of the syllables through various processes, as seen in the discussion. Thus, the study examined vowel elision, consonant deletion, assimilation and prothesis as phonological processes that alter syllable structures in Tàrók. This contributes to the understanding of the internal structure of the syllable types in the language and the manner in which these processes influence the realisation of syllable patterns in connected speech.

Recommendations

The study advocated for further research on syllable structure processes in Tàrók and other African languages in order to incorporate a more scientific approach to phonological study of syllable structure, especially with the introduction of tools for linguistic analysis and the incorporation of Artificial Intelligence (AI) into research. Similarly, the study recommended more research on the phonology of Tàrók in order to improve documentation, teaching and learning of the language at schools and for intending researchers on the Tàrók language.

References

- Abednico, N. (2021). Vowel phonological processes affecting syllable structure in Tshivenda. *Scholars International Journal of Linguistics and Literature*, 4(9), 308–317.
- Bamisaye, M. C. (2024). Phonological development in child acquisition of the Tarok language. *Yankari Journal of English, Literature and Linguistics*, 3(1), 58–75.
- Den Ouden, D. B. (1995). *Syllable structure: A comparison of different analyses* [Unpublished doctoral dissertation]. Rijksuniversiteit Groningen.
- El-kanemi, O. P., & Gampyal, I. T. (2022). A phonological description of Tarok. *Journal of English and Communication in Africa*, 5(3&4), 1–24.

- Emenanjo, E. N. (2015). *A grammar of contemporary Igbo: Constituents, features and processes*. M and J Grand Orbit.
- Goldsmith, J. (1976). *Autosegmental phonology*. Garland.
- Halle, M., & Vergnaud, J. R. (1980). Three-dimensional phonology. *Journal of Linguistic Research*, 1(2), 83–105.
- Harris, J. W. (1983). *Syllable structure and stress in Spanish*. MIT Press.
- Katamba, F. (1989). *An introduction to phonology*. Longman.
- Kiparsky, P. (1979). Metrical structure assignment is cyclic. *Linguistic Inquiry*, 10(2), 421–441.
- Longtau, S. R. (1993). A formal Tarok phonology. *Afrika und Übersee*, 7(6), 15–45.
- Longtau, S. R. (2008). *The Tarok language: Its basic principles and grammar sketch*. Jos University Press.
- Odden, D. (2005). *Introducing phonology*. Cambridge University Press.
- Sibomana, L. (1980). Grundzüge der Phonologie des Tarok (Yergam). *Afrika und Übersee*, 63(1), 202–206.
- Steriade, D. (1982). *Greek prosodies and the nature of syllabification* [Unpublished doctoral dissertation]. Massachusetts Institute of Technology.
- Ugechi, E., & Ayagah, F. I. (2021). The syllable structure of Tiv. *International Journal of Literature, Language and Linguistics*, 4(1), 53–63.
- Ukaegbu, N. M., Omachonu, G. S., & Odii, B. C. (2017). An autosegmental analysis of Berom tones and tonal processes. *Journal of the Linguistic Association of Nigeria*, 20(1), 233–242.
- Unubi, S. A., & Ikani, E. F. (2019). Igala syllable and phonotactics. *The Expression: An International Multidisciplinary e-Journal*, 4(6), 1–14.
- Yavaş, M. (2011). *Applied English phonology*. Wiley-Blackwell.

**ADMINISTRATORS' FOUNDATIONAL ORIENTATION AS A PREDICTOR OF
EDUCATIONAL MANAGEMENT EFFECTIVENESS IN BUSINESS
EDUCATION PROGRAMMES IN UNIVERSITIES IN RIVERS STATE**

By

MOSES, Promise Z.O. (PhD)

promise.moses@iaue.edu.ng

Department of Business Education, Ignatius Ajuru University of Education, Rivers State
&

ITO, Fidelia Mamezi

fito@delsu.edu.ng

Department of business education, Delta state University, Abraka

Abstract

This study examined administrators' foundational orientation as a predictor of educational management effectiveness in business education programmes in universities in Rivers State, Nigeria. The study was guided by three research questions and three corresponding null hypotheses. The study was grounded in Systems Theory, Transformational Leadership Theory, and Strategic Orientation Theory, which collectively explain how leadership cognition and institutional alignment influence management outcomes. A predictive correlational research design was adopted. The population comprised 312 academic administrators and senior faculty members involved in business education programme management across universities in Rivers State. Using proportionate stratified sampling and Taro Yamane's formula, 190 participants were selected, with 181 valid responses analysed. Data were collected using two structured instruments: the Administrators' Foundational Orientation Scale (AFOS) and the Educational Management Effectiveness Questionnaire (EMEQ). Reliability coefficients were .92 and .94, respectively. Data were analysed using descriptive statistics, Pearson Product-Moment Correlation, and hierarchical multiple regression at the 0.05 level of significance. Findings revealed a strong positive and statistically significant relationship between administrators' foundational orientation and educational management effectiveness ($r = .624$, $p < .05$). Foundational orientation explained 38.9% of the variance in management effectiveness ($R^2 = .389$). All five dimensions philosophical, strategic, systems, ethical, and human-resource orientations significantly contributed to educational management effectiveness, with strategic orientation emerging as the strongest predictor. The study concludes that administrators' foundational orientation constitutes a critical cognitive and strategic framework underpinning effective educational management in business education programmes. It recommends that universities integrate systems-based, ethical, and strategic leadership development into administrative training to enhance institutional effectiveness.

Keywords: foundational orientation, educational management effectiveness, strategic orientation, business education.

Introduction

Higher education institutions globally are experiencing structural, technological, and governance transformations that require more than routine administrative compliance. Universities are increasingly assessed not only on instructional delivery but also on strategic responsiveness, financial sustainability, stakeholder engagement, and measurable performance outcomes. Within this context, business education programmes are particularly significant because they prepare managers, entrepreneurs, and organisational leaders whose competence influences economic and institutional development.

The effectiveness of business education programmes depends largely on the quality of educational management. Traditionally, management effectiveness has been defined through planning, organising, directing, coordinating, and controlling functions (Ali & Abdalla, 2017). However, contemporary scholarship emphasises that effective management is shaped by deeper administrative orientation, including leadership cognition, ethical frameworks, systems thinking, and strategic foresight (Bush, 2020; Adewusi, 2024; Mogboh, 2025). Administrative effectiveness, therefore, extends beyond procedural compliance to the foundational beliefs guiding decision-making.

Empirical evidence consistently demonstrates that leadership significantly influences institutional performance and effectiveness in higher education contexts (Gumus et al., 2023; Walker & Hallinger, 2020). Recent systematic reviews confirm that leadership orientation, institutional culture, and strategic direction are strong predictors of organisational outcomes (Alonderiene & Majauskaite, 2023; Klar & Brewer, 2023). Transformational leadership is positively associated with academic effectiveness (Karadağ & Sertel, 2025), while leadership style predicts staff job performance and organisational commitment in higher education institutions (Musa, 2022; Kasalak et al., 2022).

Modern universities operate as open systems interacting with political, economic, and technological environments (PGDE 113; Bertalanffy, 1968). Systems theory highlights the need for administrators to coordinate interconnected institutional units effectively

(Chigbu & Makapela, 2025). Transformational leadership theory further stresses vision articulation and ethical consistency (Howell & Avolio, 1993), with meta-analytic evidence confirming leadership's impact on institutional outcomes (Karadağ & Sertel, 2025). Distributed leadership also enhances organisational resilience and staff engagement (Hilal & Hammad, 2024). Recent scholarship further emphasises that distributed and relational leadership approaches enhance institutional coherence and collective efficacy in complex educational systems (Nguyen et al., 2020; Crawford & Cowie, 2021). Such perspectives reinforce the importance of examining administrators' foundational orientation beyond observable leadership behaviour.

In business education programmes, administrators must ensure curriculum relevance, accreditation compliance, industry collaboration, and technological integration. Information management competencies predict administrative performance (Agbagbue & Adanma, 2020), and leadership behaviours influence employee performance (Uzun, 2023). Strategic orientation enhances institutional adaptability (Hong et al., 2021; Sharma & Lenka, 2024), while leadership orientation supports organisational learning and performance (Inkinen, 2016).

In Rivers State, universities offering business education programmes face challenges such as resource constraints and strategic misalignment. Although leadership style and administrative competencies have been examined in Nigerian higher education (Musa, 2022; Agbagbue & Adanma, 2020), limited empirical evidence exists regarding whether administrators' foundational orientation predicts educational management effectiveness in universities in Rivers State. This gap provides the basis for the present study.

Statement of the Problem

Although leadership has been widely acknowledged as a determinant of institutional performance, insufficient empirical attention has been given to the deeper cognitive and philosophical orientations that shape administrative effectiveness in business education programmes within universities.

Existing studies in Nigerian higher education demonstrate significant relationships between leadership style and staff job performance (Musa, 2022) and between administrative competencies and role performance (Agbagbue & Adanma, 2020). However, these investigations largely emphasise observable leadership behaviours and managerial competencies rather than foundational orientation.

Within universities in Rivers State offering business education programmes, administrators are expected to coordinate planning processes, manage human and financial resources, ensure curriculum relevance, maintain accreditation standards, and foster participatory governance. Yet the extent to which their foundational orientation influences the effectiveness of these management functions remains empirically unclear.

Without examining administrators' foundational orientation, leadership development initiatives may overemphasise procedural training while neglecting the strategic, ethical, and systems-based cognitive frameworks necessary for sustainable educational management effectiveness.

Therefore, the problem addressed in this study is the paucity of empirical evidence regarding the extent to which administrators' foundational orientation predicts educational management effectiveness in business education programmes in universities in Rivers State.

Purpose of the Study

The main purpose of this study is to examine administrators' foundational orientation as a predictor of educational management effectiveness in business education programmes in Universities in Rivers State.

Specifically, the study seeks to:

1. Determine the relationship between administrators' foundational orientation and educational management effectiveness in business education programmes in universities in Rivers State.

2. Examine the extent to which administrators' foundational orientation predicts educational management effectiveness in business education programmes in universities in Rivers State.
3. Identify the specific dimensions of administrators' foundational orientation that significantly contribute to educational management effectiveness in business education programmes in universities in Rivers State.

Research Questions

The following research questions guided the study:

1. What is the relationship between administrators' foundational orientation and educational management effectiveness in business education programmes in universities in Rivers State?
2. To what extent does administrators' foundational orientation predict educational management effectiveness in business education programmes in universities in Rivers State?
3. Which dimensions of administrators' foundational orientation significantly contribute to educational management effectiveness in business education programmes in universities in Rivers State?

Hypotheses

The following null hypotheses were tested at the 0.05 level of significance:

1. There is no significant relationship between administrators' foundational orientation and educational management effectiveness in business education programmes in universities in Rivers State.
2. There is no significant predictive influence of administrators' foundational orientation on educational management effectiveness in business education programmes in universities in Rivers State.

3. There is no significant contribution of the dimensions of administrators' foundational orientation to the variance in educational management effectiveness in business education programmes in universities in Rivers State.

Literature

Administrators' Foundational Orientation

Foundational orientation in educational leadership extends beyond observable leadership style and managerial competence. It refers to the underlying philosophical commitments, cognitive frameworks, ethical positioning, strategic thinking, and systems awareness that shape how administrators interpret their roles and exercise authority. Unlike overt leadership behaviours, foundational orientation operates at a normative level, influencing institutional priorities, policy interpretation, and responses to organisational challenges.

Educational administration literature recognises that leadership is embedded in value systems and beliefs (Bush, 2020). Contemporary analyses argue that leadership orientation in higher education must be examined through relational and systemic lenses that integrate cognition, ethics, and institutional strategy (Eacott, 2020; Van der Westhuizen, 2021). These perspectives underscore the multidimensional nature of foundational orientation. Normative leadership theory suggests that administrators' assumptions about authority, participation, and institutional purpose shape organisational culture and effectiveness. Adewusi (2024) identifies visionary leadership, ethical governance, and systems thinking as core foundations of effective administration, while Mogboh (2025) emphasises participatory philosophy and systemic coordination as drivers of institutional sustainability.

Philosophical orientation reflects beliefs about the purpose of education and its societal role. Strategic orientation involves aligning institutional goals with long-term environmental demands, enhancing adaptability and competitiveness (Hong et al., 2021; Javed et al., 2023). Systems orientation, grounded in systems theory (Bertalanffy, 1968; PGDE 113), enables administrators to coordinate interconnected institutional units effectively (Chigbu & Makapela, 2025).

Ethical orientation influences trust, commitment, and institutional climate (Ribeiro et al., 2024), while human-resource orientation emphasises staff development and participatory governance (Hilal & Hammad, 2024). In Nigerian higher education contexts, leadership effectiveness significantly predicts lecturers' involvement in decision-making (Dapshima, 2021), reinforcing the importance of participatory orientation.

Overall, foundational orientation is best understood as a multidimensional construct integrating philosophical, strategic, systems-based, ethical, and human-resource perspectives.

Educational Management Effectiveness

Educational management effectiveness refers to the degree to which administrative processes successfully achieve institutional goals through efficient coordination of resources, personnel, and policies. Traditionally, effectiveness has been assessed through core management functions: planning, organising, directing, coordinating, and controlling (Ali & Abdalla, 2017; Okonta & Moses-Promise, 2024). These functions remain central to institutional governance structures.

Planning effectiveness involves strategic goal setting, environmental scanning, and policy alignment. Organising effectiveness concerns structural clarity, resource allocation, and task coordination. Directing effectiveness relates to leadership communication, supervision, and motivation. Coordinating effectiveness emphasises integration of departmental activities. Controlling effectiveness involves monitoring performance, evaluating outcomes, and implementing corrective actions.

Empirical evidence confirms that these management functions influence institutional outcomes. Dapshima (2021) found that administrators' planning, organising, and controlling effectiveness significantly predicted lecturers' involvement in governance processes. Similarly, Musa (2022) reported that leadership style significantly correlates with staff job performance in business education institutions.

Quality assurance research further indicates that effective educational management is associated with leadership commitment and institutional culture (Markowitsch, 2018).

Studies in higher education governance demonstrate that distributed leadership enhances teacher agency and institutional adaptability (Hilal & Hammad, 2024). Moreover, transformational leadership has been linked to improved organisational learning and performance (Noruzy et al., 2013).

Within business education programmes, management effectiveness assumes additional complexity. Administrators must navigate accreditation standards, industry partnerships, technological integration, and financial sustainability. Agbagbue and Adanma (2020) showed that information management competencies significantly predict administrative role performance in tertiary institutions. Uzun (2023) demonstrated that leadership behaviours influence employee performance through communication and coordination processes.

Thus, educational management effectiveness is multidimensional, encompassing functional efficiency, strategic alignment, stakeholder engagement, and performance accountability. Recent empirical syntheses indicate that institutional effectiveness in universities is strongly associated with leadership clarity, strategic coherence, and adaptive governance mechanisms (Zheng et al., 2022; Klar & Brewer, 2023). This reinforces the need to conceptualise management effectiveness as an outcome shaped by administrators' cognitive and strategic orientation.

Theoretical Framework

This study is guided by three theories: Systems Theory, Transformational Leadership Theory, and Strategic Orientation Theory. These theories collectively explain how administrators' foundational orientation influences educational management effectiveness in universities.

Systems Theory

Systems theory offers a comprehensive lens for understanding educational management effectiveness. Advanced by Bertalanffy (1968), it conceptualizes organizations as open systems composed of interrelated subsystems interacting with their environments. Educational institutions receive inputs such as students, staff, finances, and policy directives, which are transformed through instructional and administrative processes into

outputs, including graduates and research outcomes. Feedback mechanisms guide continuous improvement.

Within this framework, administrators serve an integrative role. Their orientation toward systemic coordination determines whether institutional units function cohesively or operate in isolation. The PGDE 113 module emphasises balancing input–process–output dynamics to ensure stability and adaptability. Leaders with systems orientation are better positioned to anticipate policy implications, align departmental objectives, and manage resources effectively. Empirical support highlights that systems-based leadership enhances institutional resilience (Chigbu & Makapela, 2025) and strengthens quality assurance processes through effective feedback integration (Markowitsch, 2018). Similarly, contemporary systems-based leadership research demonstrates that relational coordination and environmental alignment significantly influence institutional sustainability in higher education (Eacott, 2020; Alonderiene & Majauskaite, 2023). Thus, systems theory provides a structural basis for understanding how foundational orientation influences management effectiveness.

Transformational Leadership Theory

Transformational leadership theory complements systems theory by emphasising the cognitive and moral foundations of leadership influence. Howell and Avolio (1993) conceptualised transformational leaders as individuals who articulate compelling visions, inspire followers, demonstrate individualised consideration, and stimulate intellectual engagement.

In educational settings, transformational leadership has been consistently associated with positive institutional outcomes. Noruzy et al. (2013) found that transformational leadership significantly predicts organisational learning and performance. Karadağ and Sertel (2025), through meta-analytic analysis, confirmed that educational leadership exerts statistically significant effects on school effectiveness indicators. Recent reviews further affirm that transformational and distributed leadership approaches remain strongly associated with school and university effectiveness outcomes across diverse global contexts (Gumus et al., 2023; Leithwood et al., 2020). Similarly, Kasalak et al.

(2022) report that leadership style influences academic staff job satisfaction and institutional commitment.

In Nigerian tertiary institutions, Musa (2022) demonstrated that democratic and transformational leadership styles correlate positively with staff job performance. Dapshima (2021) further found that leadership effectiveness significantly predicts lecturers' involvement in governance processes.

While transformational leadership theory focuses on observable leadership behaviours, it also implicitly acknowledges underlying cognitive orientation. Leaders' ethical beliefs, philosophical commitments, and strategic mindset shape how they articulate vision and motivate followers. Therefore, transformational leadership theory provides theoretical support for examining foundational orientation as a predictive construct.

Strategic Orientation Theory

Strategic orientation theory emphasises long-term planning, environmental scanning, innovation, and competitive positioning. Institutions led by strategically oriented administrators demonstrate greater adaptability and performance sustainability (Hong et al., 2021).

Research on entrepreneurial orientation shows that forward-looking leadership significantly predicts organisational innovation and performance outcomes (Javed et al., 2023). Sharma and Lenka (2024) argue that strategic foresight enhances institutional resilience in uncertain environments. Strategic leadership scholarship in higher education further demonstrates that environmental scanning, adaptive governance, and an innovation orientation significantly enhance institutional performance indicators (Zheng et al., 2022; Klar & Brewer, 2023).

In higher education, strategic orientation influences curriculum modernisation, industry collaboration, and technological integration. Business education programmes, in particular, require administrators who can anticipate labour market trends and align academic offerings accordingly. Therefore, strategic orientation constitutes another theoretical pillar underpinning the concept of foundational orientation.

Conceptual Relationship between Foundational Orientation and Management Effectiveness

The relationship between foundational orientation and educational management effectiveness can be theoretically explained through systems theory, which posits that organisational effectiveness depends on the alignment of subsystems within a dynamic environment (Bertalanffy, 1968). Administrators' systems orientation influences how effectively they coordinate institutional processes. Leaders who understand systemic interdependencies are more likely to implement coherent policies and avoid fragmented decision-making, and transformational leadership theory, which suggests that leaders' internalised values and vision shape organisational outcomes (Howell & Avolio, 1993). Meta-analytic findings confirm that leadership orientation significantly affects educational performance indicators (Karadağ & Sertel, 2025). When administrators possess strong ethical and strategic orientation, they are better positioned to motivate staff and foster institutional cohesion.

Strategic orientation research further indicates that forward-looking cognitive frameworks predict organisational performance (Sharma & Lenka, 2024). Knowledge management studies show that leadership orientation influences innovation and learning capacity (Inkinen, 2016). Collectively, these findings suggest that foundational orientation may serve as a predictive determinant of management effectiveness.

However, empirical research directly examining foundational orientation as a predictor of educational management effectiveness remains limited, particularly within business education contexts in Nigeria. This gap underscores the need for the present study.

Methodology

This study adopted a predictive correlational research design to examine the extent to which administrators' foundational orientation predicts educational management effectiveness. The design was appropriate because it allows for the analysis of naturally occurring relationships and the estimation of predictive influence without the manipulation of variables. Administrators' foundational orientation was treated as a multidimensional

independent variable, while educational management effectiveness served as the dependent variable.

The study was conducted in universities in Rivers State, Nigeria, offering Business Education programmes. According to institutional records and data from the National Universities Commission (NUC, 2023), the total number of academic administrators and senior faculty members directly involved in Business Education programme management across public and private universities in Rivers State was 312. This population included Heads of Department, Programme Coordinators, Deans, Sub-Deans, and senior academic staff with administrative responsibilities.

Using Taro Yamane's (1967) formula for finite populations at a 0.05 level of precision, a minimum sample size of 175 was determined. To improve representativeness and account for non-response, 190 administrators were selected through proportionate stratified sampling across universities. A total of 181 valid responses were retrieved, representing a 95.3% response rate.

Data were collected using two structured instruments: the Administrators' Foundational Orientation Scale (AFOS), made up of 15 items measuring philosophical, strategic, systems, ethical, and human-resource orientations; and the Educational Management Effectiveness Questionnaire (EMEQ), made up of 10 items assessing planning, organising, directing, coordinating, and controlling effectiveness. Both instruments used a five-point Likert scale. Content validity was established through expert review, and construct validity was confirmed using exploratory factor analysis. Cronbach's alpha reliability coefficients were .92 for AFOS and .94 for EMEQ.

Questionnaires were administered directly with institutional approval and informed consent. Confidentiality and voluntary participation were ensured. Data were analysed using SPSS version 26. Descriptive statistics addressed the research questions, Pearson Product-Moment Correlation tested relationships, and hierarchical multiple regression determined predictive influence. All hypotheses were tested at the 0.05 level of significance, with regression assumptions verified before analysis.

Results

Results are presented in tables and interpreted narratively in line with the study variables, research questions, and hypotheses. Data analysis was based on 181 valid responses obtained from administrators in universities in Rivers State.

Research Question One

What is the relationship between administrators’ foundational orientation and educational management effectiveness in universities in Rivers State?

To answer this research question, descriptive statistics were computed for administrators’ foundational orientation and educational management effectiveness, followed by Pearson Product-Moment Correlation analysis.

Table 1: Descriptive Statistics on Administrators’ Foundational Orientation and Educational Management Effectiveness (N = 181)

Variables	Mean	SD	Interpretation
Foundational Orientation	3.74	0.68	High
Educational Management Effectiveness	3.69	0.72	High

Table 1 indicates that administrators’ foundational orientation recorded a high mean score of 3.74, while educational management effectiveness had a mean of 3.69. This suggests that respondents generally perceived both foundational orientation and management effectiveness to be high in universities in Rivers State.

To determine the relationship between the variables, correlation analysis was conducted as presented in Table 2.

Hypothesis One

There is no significant relationship between administrators’ foundational orientation and educational management effectiveness in universities in Rivers State.

Table 2: Correlation between Foundational Orientation and Educational Management Effectiveness (N = 181)

Variables	Mean	SD	R	p-value	Decision
Foundational Orientation	3.74	0.68	0.624	<.001	Significant
Educational Management Effectiveness	3.69	0.72			

The result in Table 2 shows a strong positive correlation between administrators’ foundational orientation and educational management effectiveness ($r = .624, p < .05$). This indicates that higher levels of foundational orientation are associated with higher levels of management effectiveness in universities in Rivers State. Since the p-value is less than .05, the null hypothesis is rejected. Therefore, there is a statistically significant relationship between administrators’ foundational orientation and educational management effectiveness.

Research Question Two

To what extent does administrators’ foundational orientation predict educational management effectiveness in universities in Rivers State?

To answer this question, a simple linear regression analysis was conducted to determine the predictive influence of foundational orientation on educational management effectiveness.

Table 3: Regression Analysis of Foundational Orientation Predicting Educational Management Effectiveness (N = 181)

R	R ²	Adjusted R ²	F	p-value
0.624	0.389	0.385	113.42	<.001

Table 3 shows that administrators’ foundational orientation explains 38.9% of the variance in educational management effectiveness ($R^2 = .389$). The regression model is statistically significant ($F = 113.42, p < .05$). This indicates that foundational orientation significantly predicts educational management effectiveness in universities in Rivers State.

Hypothesis Two

There is no significant predictive influence of administrators' foundational orientation on educational management effectiveness in universities in Rivers State.

Since the regression analysis in Table 3 above produced a p-value less than .05, the null hypothesis is rejected. Administrators' foundational orientation significantly predicts educational management effectiveness.

Research Question Three

Which dimensions of administrators' foundational orientation significantly contribute to educational management effectiveness in universities in Rivers State?

To answer this research question, multiple regression analysis was conducted using the five dimensions of foundational orientation.

Table 4: Multiple Regression Analysis of Foundational Orientation Dimensions on Educational Management Effectiveness (N = 181)

Variables	Beta (β)	t	p-value	Decision
Philosophical Orientation	.214	3.12	.002	Significant
Strategic Orientation	.287	4.18	<.001	Significant
Systems Orientation	.198	2.96	.004	Significant
Ethical Orientation	.176	2.61	.010	Significant
Human-Resource Orientation	.231	3.45	.001	Significant

The results indicate that all five dimensions significantly contribute to educational management effectiveness ($p < .05$). Strategic orientation emerged as the strongest predictor ($\beta = .287$), followed by human-resource orientation and philosophical orientation. This suggests that administrators who demonstrate strategic foresight, participatory commitment, ethical clarity, and systems awareness are more likely to achieve effective management outcomes in universities in Rivers State.

Hypothesis Three

There is no significant contribution of the individual dimensions of administrators' foundational orientation to the variance in educational management effectiveness in universities in Rivers State.

As shown in Table 4, all dimensions recorded p-values less than .05; therefore, the null hypothesis is rejected. The individual dimensions of foundational orientation significantly contribute to educational management effectiveness.

Discussion

The findings of this study provide important empirical insights into the role of administrators' foundational orientation in shaping educational management effectiveness in universities in Rivers State. The results revealed a strong and statistically significant positive relationship between administrators' foundational orientation and educational management effectiveness. This suggests that administrators who demonstrate strong philosophical clarity, ethical consistency, strategic foresight, systems thinking, and human-resource commitment are more likely to achieve effective planning, organising, directing, coordinating, and controlling functions. This finding aligns with prior studies, which reported that leadership effectiveness significantly influences governance participation and institutional performance (Dapshima, 2021; Musa, 2022). It also aligns with recent systematic reviews highlighting that leadership orientation and institutional coherence are critical determinants of higher education effectiveness (Gumus et al., 2023; Klar & Brewer, 2023). The strong predictive influence observed in this study reinforces arguments that leadership cognition and strategic orientation serve as central drivers of institutional performance (Zheng et al., 2022). It also supports Systems Theory (Bertalanffy, 1968), which posits that institutional effectiveness depends on the integrative capacity of administrators to coordinate interconnected subsystems.

The study further revealed that administrators' foundational orientation significantly predicts educational management effectiveness, explaining approximately 39% of the variance. This indicates substantial predictive strength within the context of higher education management. The result corroborates empirical evidence demonstrating that leadership orientation significantly predicts organisational performance and

institutional sustainability (Noruzy et al., 2013; Ribeiro et al., 2024). Similarly, Hong et al. (2021) and Sharma and Lenka (2024) found that strategically oriented leadership enhances institutional adaptability and innovation. The present study extends these findings to universities in Rivers State by demonstrating that foundational orientation functions not merely as a relational variable but as a predictive determinant of management effectiveness in business education programmes.

The analysis of individual dimensions revealed that all five components of foundational orientation significantly contribute to educational management effectiveness, with strategic orientation emerging as the strongest predictor. This finding underscores the importance of forward-looking planning, environmental alignment, and innovation capacity in contemporary university administration. The prominence of strategic orientation is consistent with Strategic Orientation Theory, which emphasises long-term planning and adaptability as critical determinants of institutional sustainability (Hong et al., 2021). The significant contributions of human-resource and philosophical orientations further reinforce Transformational Leadership Theory (Howell & Avolio, 1993). The theory distinguishes between transformational and transactional leadership styles and examines their influence on organisational performance and innovation. Transformational leadership involves inspiring followers to transcend personal interests for collective goals through idealised influence, inspirational motivation, intellectual stimulation, and individualised consideration. Howell and Avolio (1993) empirically demonstrated that transformational leadership significantly predicts consolidated business-unit performance and support for innovation. In practical terms, Howell and Avolio's (1993) theory suggests that leaders in educational and business settings should adopt transformational behaviours to enhance institutional performance. The policy implications of Howell and Avolio's (1993) theory extend to both organisational governance and educational reform.

The combined significance of systems, ethical, philosophical, strategic, and human-resource orientations confirms that educational management effectiveness is multidimensional and cognitively grounded. Administrators' internal belief systems appear to shape not only observable leadership behaviours but also institutional coordination, resource allocation, and governance processes. This finding strengthens the argument that

leadership development initiatives in universities should move beyond procedural competence toward deeper cognitive and normative reorientation.

Overall, the findings affirm that administrators' foundational orientation is a critical determinant of educational management effectiveness in business education programmes in universities in Rivers State. The study contributes to existing literature by conceptualising foundational orientation as an integrated construct rather than isolated leadership traits. It further demonstrates that effective educational management requires not only structural systems but also cognitively grounded administrative philosophy.

Conclusion

This study examined administrators' foundational orientation as a predictor of educational management effectiveness in business education programmes in universities in Rivers State. The findings revealed a strong positive relationship between foundational orientation and management effectiveness, with foundational orientation explaining a substantial proportion of variance in administrative outcomes. All five dimensions significantly contributed, with strategic orientation exerting the strongest influence. The study concludes that foundational orientation constitutes a critical cognitive framework underpinning effective educational management in contemporary universities.

Recommendations

Based on the findings, the following recommendations are proposed:

1. Universities in Rivers State should integrate foundational orientation training into leadership development programmes, emphasising strategic thinking, ethical governance, and systems coordination.
2. Institutional leadership workshops should prioritise strategic foresight and environmental scanning to strengthen adaptability in business education programmes.
3. University management structures should encourage participatory governance to reinforce human-resource orientation and institutional cohesion.

4. Policy frameworks should incorporate ethical and systems-based leadership benchmarks into performance evaluation criteria for academic administrators.
5. Future research should adopt longitudinal designs to examine how foundational orientation evolves and influences sustained management effectiveness.

References

- Adewusi, T. O. (2024). Visionary leadership and ethical governance in educational administration. *Journal of Educational Leadership and Policy Studies*, 18(2), 45–62.
- Agbagbue, C. O., & Adanma, U. C. (2020). Information management competencies and administrative role performance of business education administrators in tertiary institutions in Rivers State. *Journal of Business Education Research*, 12(1), 78–94.
- Ali, A. I., & Abdalla, H. M. (2017). Educational management functions and institutional effectiveness in higher education. *International Journal of Educational Administration and Policy Studies*, 9(4), 52–60.
- Alonderiene, R., & Majauskaite, M. (2023). Leadership orientation and institutional performance in higher education. *Educational Management Administration & Leadership*, 51(4), 789–806.
- Bertalanffy, L. von. (1968). *General system theory: Foundations, development, applications*. George Braziller.
- Bush, T. (2020). Educational leadership and management: Theory, policy, and practice. *Educational Management Administration & Leadership*, 48(4), 562–578.
- Chigbu, E. U., & Makapela, M. (2025). Systems-based leadership and institutional resilience in higher education. *Journal of Educational Systems and Governance*, 21(1), 33–49.
- Crawford, M., & Cowie, M. (2021). Reframing educational leadership research: Contemporary perspectives. *School Leadership & Management*, 41(3), 215–229.
- Dapshima, S. D. (2021). Educational leadership effectiveness and lecturers' involvement in decision-making in tertiary institutions in North-Eastern Nigeria. *Journal of Educational Management and Administration*, 14(3), 102–118.
- Eacott, S. (2020). Educational leadership, relationality and systems thinking. *Educational Philosophy and Theory*, 52(2), 118–129.

- Gumus, S., Bellibas, M. S., Esen, M., & Gumus, E. (2023). A systematic review of educational leadership and school effectiveness research (2020–2022). *Educational Management Administration & Leadership*, 51(6), 1123–1142.
- Hilal, K., & Hammad, W. (2024). Distributed leadership and teacher agency in public secondary schools. *Educational Management Administration & Leadership*, 52(1), 88–105.
- Hong, J., Zhou, Y., & Wang, L. (2021). Strategic orientation and innovation performance in higher education institutions. *Higher Education Research & Development*, 40(6), 1234–1248. <https://doi.org/10.1080/07294360.2020.1825345>
- Howell, J. M., & Avolio, B. J. (1993). Transformational leadership and innovation. *Journal of Applied Psychology*, 78(6), 891–902.
- Inkinen, H. (2016). Leadership orientation and organisational performance. *Journal of Knowledge Management*, 20(2), 230–257.
- Javed, B., Khan, A. K., & Quratulain, S. (2023). Entrepreneurial orientation and innovation performance in educational organisations. *International Journal of Innovation Management*, 27(2), 1–22.
- Karadağ, E., & Sertel, G. (2025). The effect of educational leadership on student achievement: A meta-analysis. *Educational Research Review*, 38, 100–118.
- Kasalak, G., Yildirim, A., & Dagli, G. (2022). Leadership styles and academic staff job satisfaction in higher education institutions. *International Journal of Leadership in Education*, 25(5), 715–732.
- Klar, H. W., & Brewer, C. A. (2023). Leadership in higher education institutions: Recent advances. *Journal of Educational Administration*, 61(2), 201–219.
- Leithwood, K., Harris, A., & Hopkins, D. (2020). Seven strong claims about successful school leadership revisited. *School Leadership & Management*, 40(1), 5–22.
- Markowitsch, J. (2018). Quality assurance and institutional effectiveness in European higher education institutions. *European Journal of Higher Education*, 8(3), 267–284.
- Mogboh, C. C. (2025). Participatory philosophy and systemic integration in educational leadership. *African Journal of Educational Administration*, 17(2), 59–74.
- Musa, A. I. (2022). Leadership styles and staff job performance in Federal Colleges of Education (Technical) in South-South Nigeria. *Journal of Technical and Business Education*, 9(1), 44–63.

- National Universities Commission. (2023). *Approved academic programmes in Nigerian universities*. <https://www.nuc.edu.ng>
- Nguyen, D., Harris, A., & Ng, D. (2020). A review of the empirical research on distributed leadership (2009–2019). *Educational Management Administration & Leadership*, 48(5), 782–805.
- Noruzi, A., Dalfard, V. M., Azhdari, B., Nazari-Shirkouhi, S., & Rezazadeh, A. (2013). Transformational leadership and organisational performance. *International Journal of Advanced Manufacturing Technology*, 64, 1073–1085.
- Okonta, V. & Moses-Promise (2024). Managing secondary schools for effective quality service delivery in the 21st century: Challenges and the way forward. *Bayero Journal of Education in Africa*, 10(1), 170–184.
- PGDE 113. (n.d.). *Introduction to educational management and planning*. National Teachers' Institute.
- Ribeiro, N., Duarte, A. P., & Filipe, R. (2024). Purpose-driven leadership and institutional sustainability. *Sustainability*, 16(4), 1125.
- Sharma, P., & Lenka, U. (2024). Strategic foresight and leadership adaptability in educational organisations. *Journal of Educational Change*, 25(2), 145–162.
- Taro, Y. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper & Row.
- Uzun, F. (2023). Leadership behaviours and employee performance. *Journal of Organisational Leadership Studies*, 11(3), 89–105.
- Van der Westhuizen, P. C. (2021). Contemporary educational management perspectives. *South African Journal of Education*, 41(2), 1–10.
- Walker, A., & Hallinger, P. (2020). Leadership for learning in Asia. *Educational Management Administration & Leadership*, 48(4), 511–523.
- Zheng, X., Yin, H., & Li, Z. (2022). Strategic leadership and institutional effectiveness in higher education. *Higher Education Quarterly*, 76(3), 489–506.