THE JENJO NOUN PHRASE STRUCTURE: AN X-BAR PERSPECTIVE

PEACE BENSON

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DECLARATION

This thesis is my original work and has not been presented for a degree in any other university.

Signature_____ Date _____

Peace Benson, B.A Ed
Department of English and Linguistics

APPROVAL BY THE SUPERVISORS

This thesis has been submitted with our approval as University supervisors.

Signature _____   Date_____

Dr. Gerry Ayieko

Department of English & Linguistics

Signature _____   Date _____

Dr. Jessica Khadi Gimode

Department of English & Linguistics

DEDICATION

This work is dedicated to my Lord Jesus Christ, the author, and finisher of my faith. The One who knows the beginning to the end.

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OPERATIONAL DEFINITION OF TERMS

Adamawa-Ubangi: Language branch of the Niger-Congo family with approximately 160 languages concentrated at the centre of the African continent.

Adjunct: Linguistic expression used in an attributive way which semantically specifies either a preceding or a following element.

Complement: A syntactic unit that completes the meaning of the head of a phrase and usually follows it. It is a phrase that selects a lexical category.

Constituent: A linguistic unit which is part of a larger one. It is a word(s) in a particular structure which must syntactically and functionally act as a unit.

Head: A word that determines the syntactic nature of the phrase such as a verb in verb phrase or a noun in a noun phrase. The head of a phrase is the item that participates in agreement.

Jenjo: A language spoken by the Jenjo people found in parts of Taraba, Adamawa and Gombe States, North Eastern Nigeria.

Modifier: A non-compulsory element in a phrase or clause structure which determines the meaning of another element in a structure on which it is dependent.

Specifiers: A grammatical class of words or phrases used to quantify the head. They include determiners like *the, this, these, that, those, a, an, some, my mother's,* and *every.*

ABBREVIATIONS AND ACRONMYS

Adj	Adjective
AP	Adjective Phrase
Adv	Adverb
Aux	Auxiliary
C	Complement
Card	Cardinal
Co	Complement object
Comp	Completive
Conj	Conjunction
Def. art	Definite article
Dem	Demonstrative
Det	Determiner
Gen	Genitive marker
GB	Government and Binding
H	Head
Imp	Imperative
Imm.pst	Immediate past tense marker
Int	Intensifier
KU	Kenyatta University
Loc	Locative
n-	First person singular
N	Noun
Nom. mrkr	Nominal marker
NP	Noun Phrase
NPs	Noun Phrases
Npst	Non past tense
Num	Number/numeral
O	Object
Obj.pro	Object pronoun
Od	Direct object

Oi	Indirect object
Ord	Ordinal
PP	Prepositional phrase
Poss	Possessive
Prep	Preposition
Pl	Plural
Pro	Pronoun
Pst	Past tense
Pst. Mrkr	Past marker
Q	Quantifier
R.cl	Relative Clause
S	Subject
Sg	Singular
Spec	Specifier
Sg.sub	Singular Subject
SVO	Subject Verb Object
Ten. infl	Tense inflection
UG	Universal Grammar
V	Verb
3. Sg	Third person singular

ABSTRACT

Jenjo is an Adamawa-Ubangi language group spoken in parts of Taraba State, Adamawa State and Gombe State in North East Nigeria. Jenjo is the name of the language and the tribe. The study was motivated by the need to document the language since it is one of the minority endangered African languages. The objectives of the study were: to describe the noun phrase structure of Jenjo; to analyze the Jenjo noun phrase using X-bar theory and to identify the syntactic functions of the NP in Jenjo sentences within X-bar. The New Testament Jenjo Bible and introspection were used. The study describes the structures and functions of Jenjo NP and analyses it in X-bar convention. A descriptive research design was used for data collection. Qualitative data was collected from five systematically sampled books of the Jenjo New Testament Bible. Random sampling was used to select one chapter per book while purposive sampling was used to select noun phrases and sentences for the study. The study determined Jenjo as a head-initial language since almost all the elements within the Jenjo NP are post-head. We established that there are simple, complex and conjoined NP structures in Jenjo. Secondly, a single noun can be a full NP and can be projected maximally in Jenjo. All the structures were accounted adequately by the X-bar convention. Lastly, Jenjo NPs function as specifiers, complements, and adjuncts in sentences. In regard to the contribution the study makes, it is hoped that it will benefit linguists, teachers, preachers and editors.

CHAPTER ONE

1.0 INTRODUCTION

This chapter presents the background of the study, statement of the problem, objectives of the study, research questions, justification and significance, scope and limitations, the assumptions of the study and lastly the chapter summary.

1.1 Background to the study

The name 'Jenjo' is variously used to refer to the language and the ethnic group of the Jenjo people. *Dza* is the actual name but they are commonly known as Jenjo. Other names are Jen and Janjo. Jenjo is spoken in Taraba, Adamawa and Gombe States, North-east, Nigeria. In Taraba State, the speakers of Jenjo are found in Karim-Lamido, Lau, Jalingo, Ardo-Kola, Bali, and Ibi Local Government areas. TheJenjos are also found in Numan and Lamurde Local Government area of Adamawa while in Gombe State, they are found in Balanga and Akko Local Government areas. There are about 30,000 Jenjo speakers in Nigeria (Markus, 2009; Makka, 2012; Michael, 2016). In Language ethnology written by Paul, Simons, and Fennig (2015), Jenjo is classified as a Niger-Congo, Atlantic-Congo, Volta-Congo, North, Adamawa-Ubangi, Adamawa, Waja-Jen, and Jen.

Figure 1.1: A modified model of Jenjo language family group
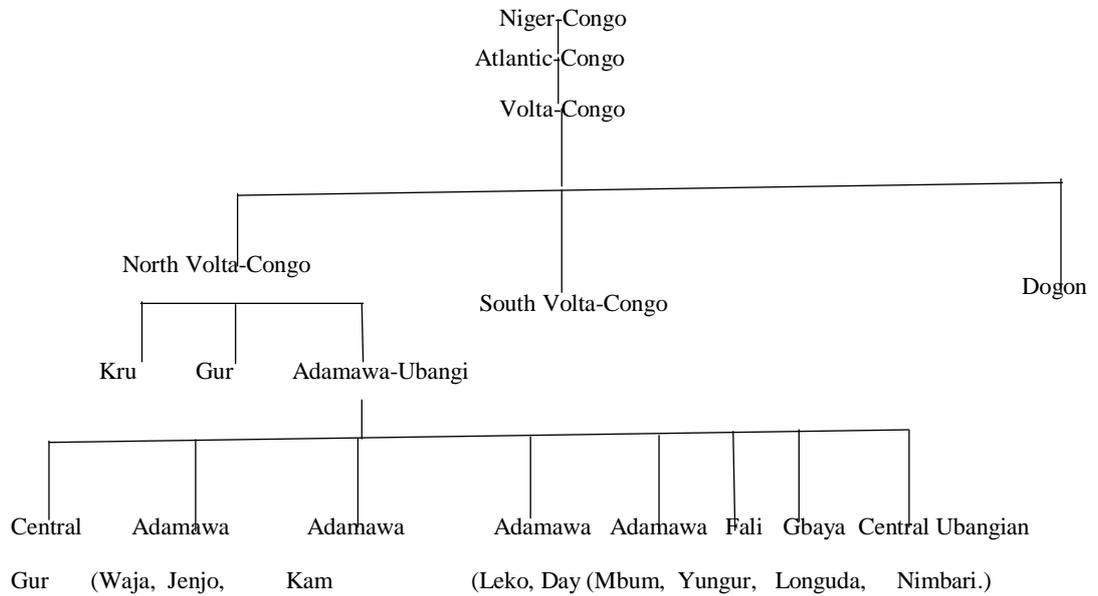
Sources: adopted from (Bendor-Samuel, 2006 and Blench & Dendo, 2004)

Fig.1.1 shows that Jenjo falls under Niger-Congo, Atlantic-Congo, Volta-Congo, North Volta-Congo, Adamawa-Ubangi and finally Adamawa.

Jenjo, being one of the minority languages in Nigeria has not been extensively studied as is the case with Hausa, Igbo and Yoruba languages. Hausa is widely spoken in North East Nigeria. It is taking over other languages in the region. Inter-marriages, and migration to urban has rendered the language to be threatened (endangered).

According to Krauss (2007), the term endangered language emanated from the biological term endangered species to mean languages that are ceasing to be spoken, becoming extinct with or without documentation. A language is endangered if it is faced with extinction.

Without adequate documentation, a language that is extinct can never be revived. Even languages with many thousands of speakers are no longer being acquired by children; at least 50% of the world's more than six thousand languages are losing speakers (UNESCO 2003:1). Jenjo fits into this category because fewer children acquire the language and the entire population of the Jenjo people is less than a million. Makka (2012:9) states that there are about 500,000 Jenjo living worldwide. In addition, based on the six degrees of endangerment with regards to Intergenerational Language Transmission by UNESCO (2003) Jenjo is unsafe thus, the need to document Jenjo.

Generally, Jenjo is spoken at homes and partly in market places, Jenjo is spoken to Jenjo sellers and Hausa is spoken to Hausa sellers in Jen (Jenjo village with the highest number of Jenjo people). There are no written materials in Jenjo at schools or churches except the Jenjo New Testament Bible which is 75% done and in circulation. Children are taught in English at school and pastors preach in Hausa.

Linguists such as Amare (1999), Rugemalira (2007), Lusekelo (2009) and Wabwire (2010) studied the noun phrase structure of African languages as a way of documenting these languages and preventing their extinction. Jenjo, a member of the Adamawa-Ubangi language group, has not been broadly studied.

Downing and Locke (2006) refer to nouns as classes of entities such as persons, objects, places, institutions, actions, abstract ideas, qualities,

phenomena, emotions and so on. Their view on the noun is based on the semantics while the current study looks at syntactic function of the noun. For instance, in Jenjo 'i' is a nominal maker that turns a verb into a noun as in *lébí* 'sing' *ilébí* 'singer'. In English, the nominalizer –er turns sing into singer, a noun. The noun phrase is a phrase that is headed by a noun. For example, a structure such as "*The king of Utopia*" is a noun phrase comprising the head noun "*king*", the complement "*of Utopia*" and its specifier "*the*" (Radford, 2004). Therefore, the noun phrase is a phrase consisting of a noun and other constituents with the noun serving as the head of the phrase. In linguistics, NP is either the head noun alone or the head noun with other constituents (modifiers).

The theory of X-bar was first proposed by Chomsky in 1970. It is one of the modules of Government and Binding. The theory deals with a relationship between the head of a phrase and other dependents within the phrase. It is a theory of syntactic category that phrases such as NP, VP, AP, and PP contain intermediate constituents that can be projected maximally. X-bar deals with head category and it simplifies and clarifies the Phrase Structure in Grammar. The study examines Jenjo noun phrase structure from an X- bar perspective.

1.2 Statement of the Problem

There are a number of studies on noun phrase structures based on African languages. . There are scores of such studies in East Africa, especially in the Bantu phylum. Rugemalira (2007) studied the structure of the Bantu noun phrase, Amare (1999) studied the noun phrase structure in Konso, a language

in Ethiopia and Lusekelo (2009) investigated the structure of the Nyakyusa noun phrase. However, studies on X-bar theoretic account of noun phrases in African languages, especially in Adamawa-Ubangian languages, are rare. It was therefore worthwhile to find out if the claim that the theory can account for all languages is valid in the analysis of the Jenjo noun phrase.

1.3 Objectives of the Study

The objectives of the present study are:

i) To describe the noun phrase structure of the Jenjo language.

ii) To analyze Jenjo noun phrase structure using X-bar theory.

iii) To identify the syntactic functions of the noun phrase in Jenjo sentences within X-bar.

1.4 Research Questions

The research questions of the present study are:

i)   What elements constitute the noun phrase structure of Jenjo?

ii)   How does X-bar account for the Jenjo noun phrase structure?

iii)   What are the syntactic functions of the Jenjo noun phrase in sentences within X-bar?

1.5 Research Assumptions

i) There are various elements that constitute the noun phrase structure in Jenjo.

ii) The Jenjo noun phrase can be accounted for using X-bar.

iii) The syntactic functions of the Jenjo noun phrase can be explained by X-bar.

1.6 Justification and Significance

The spread and dominance of Hausa, the language of wider communication in Northern Nigeria, inter-tribal marriages and migration to urban areas, are some of the major factors that may lead to the extinction of Jenjo language hence the need to document it.

The Jenjo language is not an exception to language endangerment and since language defines our worldview, it is important to preserve these minority languages. It has also been observed that there is inadequate literature on Jenjo, even though the Education Policy in Nigeria requires lower primary school children to be taught in the local language of their immediate environment. This is not the case in Jen instead pupil are being taught in Hausa and English that the barely understand. The written document found to be available in Jenjo is the Jenjo New Testament Bible. The yearly Jenjo newsletter (WI-IDZA) is printed in English.

This phenomenon of non-availability of documented materials on the language may affect its survival as the upcoming generation may not be able to speak, read or write the language.

The study hopes to be an important reference material for Jenjo students, linguists, teachers, preachers, area court workers and Jenjo Newsletter (WI-IDZA). For instance, it may be found useful in learning the simple grammar of Jenjo. The study contributes to the development of Jenjo and other minority indigenous languages in Nigeria and Africa at large.

It also spurs further research on these languages which may prevent the languages from extinction and challenge the government to come up with a language development policy in favour of the endangered languages.

1.7 Scope and Limitations

The research is on the Jenjo noun phrase structure as documented in the Jenjo New Testament Bible. The study is limited to identification and description of the NP structure of Jenjo, its analysis using X-bar theory, and its syntactic functions in sentences. The study is restricted to the morpho-syntactic aspect; it does not account for the phonological and semantic aspects of phrase structure. The study draws its data from the Jenjo New Testament Bible and the researcher's intuitive knowledge.

1.8 Chapter Summary

The chapter covers the background of the study, statement of the problem, objectives of the study, research questions, research assumptions, justification and significance and lastly scope and limitations. The next chapter provides the literature review and theoretical framework.

CHAPTER TWO

LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.0 Introduction

This chapter examines the relevant literature on the studies of the noun phrase structure, the noun phrase (NP) using X-bar, syntactic functions of NPs, the theoretical framework and the chapter summary.

2.1 Review of Related Literature

This section discusses literature concerning the noun phrase structure, X-bar theory, and syntactic functions of the noun phrase.

2.1.1 Studies on the Noun Phrase Structure

There are diverse related studies on noun phrases. Quirk, Greenbaum, Leech, and Svartvik (1985) observe that, the English NP has four constituents, namely: Head, Determinative, Pre-modification and Post-modification. The head of an NP is the noun, pronoun or nominal which is seen as the most important element in the NP. Examples include the *boy, he*, *John, the lady who fainted.*

Similarly, Huddleston (1988) observes that an NP consists of a noun as head, alone or accompanied by one or more dependents. Some dependents precede the head, others follow. He distinguishes them as pre-head and post-head dependents. The pre-head dependents are two main types, determiners and modifiers and the post head dependents are of three types: complements, modifiers and peripheral dependents.

The current study intended to find out how the elements in the Jenjo NP are ordered and therefore these related studies were insightful.

Dryer (2007) divides noun phrases into three parts; the simple NP which contains pronouns or nouns with modifiers like articles, adjectives, demonstratives or numerals; the complex NP contains complex modifiers such as the genitive or possessive and relative clauses and various types of NPs which lack a head. This study guided us in establishing the types of noun phrases found in Jenjo.

Abney (1987) proposes the functional category, he considers the determiner the head of the NP and since phrases get their names from their heads, a phrase headed by determiner is a DP and an NP that is headed by a noun is a complement in the DP. His study informs this study in the DP structure that is in the DP structure, determiners are the heads while in the NP structure, determiners are specifiers and nouns are the heads.

Rugemalira (2007) discusses the syntax of the noun phrase in several Bantu languages such as Swahili, Nyambo, Sukuma, Ha, Nyakyusa and Mashami. He examines the syntax of the noun and its dependent elements. He presents the structure of a noun phrase in Bantu as one having Pre-determiner, Noun, Determiner, and Modifier. He establishes that the pre-determiners of these languages are either possessives or demonstratives and the modifiers are numerals, ordinals or associative, quantifiers, adjectives, and relative clauses. The distributives and demonstratives occupy the pre-determiner slot and cannot co-occur.

Second, the noun phrase of these languages has a limit because of the syntactic and semantic restrictions on the co-occurrence of the elements of the NP. The NPs cannot expand indefinitely because of the cumulative effects of the restrictions. He states that Swahili has the following NP structure: {Dem, Noun, Poss, Num, Ord, Adj, Quant, Asso.}. The elements common in all these Bantu languages are the determiners appearing before and after the head noun either as possessives or demonstratives except Sukuma language whose possessive, demonstrative and relative clause vary position freely but after the head noun.

Lusekelo (2009) refutes Rugemalira (2007) claim on Nyakyusa's pre-determiner before the head noun. He states that the pre-determiner before the head noun is not preferred. If a distributive occurs in an NP, it is likely to stand alone that is, as an indicator of indefiniteness. For example:

1. kukuti mu-ndu   i-ku-iya   i-findu
    Distr 1-person   SC-Hab-eat   Aug-food
       'Each person eats food'. (Lusekelo, 2009:323)

Lusekelo analyzes the order of elements in the Nyakyusa noun phrase, also a Bantu language. He discovers that first, the dominant attested order of the elements in the language is N>[(Poss)(Dem)]>[(Num)(Quant)(A)]>[(Int)(Rel)]. Second, both the possessive and demonstrative may occur immediately after the head noun. For example:

 2. *U-n-tu* 'head' *gw-ako* 'yours' (poss) *ugu* 'this' (dem)
     'This head of yours'.   (Lusekelo, 2009:319)

But when the possessive immediately follows the head noun it must drop a pre-prefix. Likewise, the demonstrative cannot precede the head noun and if it does, the meaning is changed. Example is:

3. *U-jor* 'this' (Dem) *mu-ndʋ* 'person'. (Lusekelo, 2009:325)

Here the demonstrative functions to indicate definiteness or specificity.

Third, theoretically, more than seven elements can co-occur within a single noun phrase. Example:

4. ʋ- mw- aanagw -angu ʋjʋjʋ -mo ʋ-nywamu ʋ-m-pimba ʋ-n-titu
     Aug- 1- child 1 -Poss Dem 1 -Num Aug-1-Adj Aug-1-Adj Aug-1-Adj
ʋ-gwa- kitatu ʋjʋ i-kʋ-fuma m-malawi Kuno bi-ku -lima i-n-dima
Aug-1- Num Rel SC-Info-com 18-Malawi Rel SC-Info -cultivate Aug-9.bean

'?!That first one short fat black child of mine who comes from Malawi where they eat fish'. (Lusekelo, 2009:326)

Rugemalira's (2007) and Lusekelo's (2009) studies are similar to the current study because they both deal with noun phrase structures of African languages. However, while their studies are on the Bantu languages, this study is on the Adamawa-Ubangi phylum. They do not deal with the functions of NP and neither do they use the same theory.

Mchombo (2006) studies the linear order on split NPs in Chichewa, a Bantu language spoken in Zambia, Malawi, Mozambique, and Zimbabwe. Mchombo focuses on the restrictions that govern the ordering of internal constituents of NPs in Chichewa, especially when those constituents involve discontinuity. He notes that Chichewa is a head-initial language, and within an NP, the modifiers are post-head.

For example:

5. mikánda anyaní ópúsa a-na-b-á yófíila
    4beads 2baboons 2SMsilly 2SM-pst-steal-fv 4SMred
     Lit. 'Beads, the silly baboons stole red ones'. (Mchombo, 2006:147)

He observes that the constraints on linearization of the split NPs in Chichewa are reducible to command relations in anaphora. Second, the formation of the relative clause in Chichewa is marked by a relative marker *méne* which introduces the relative clause. It is marked for agreement with the relativized noun. Also, discontinuous constituents in Chichewa and the limits on that do not straightforwardly provide motivation for accounts of information structure grounded in movement rules. Mchombo (2006) points to the possibility of Chichewa being a partially non-configurational. For example:

6. Awa njuchi izi zi-ná-wá-lum-a alenje Opúsa
    2prox.dem 10bees 10prox.dem 10SM-pst-2OM-bite-fv 2hunters 2SMfoolish
    'These bees bit these foolish hunters.' (Mchombo, 2006:145)

The proximal demonstrative *awa* 'these' agrees in ɸ-features with the head noun *alenje* 'hunters', is discontinued from the rest of the phrase. Like Chichewa, Jenjo also has relative clauses and proximal demonstrative as part of noun phrase structure. His research focuses on restrictions of the ordering of internal constituents of noun phrases in Chichewa, especially those in discontinuous constituents while this study focuses on describing Jenjo noun phrase structures.

In South Central Africa, a study of Tonga and Lenje NP structure was conducted by Chitebeta (2007).

She found out that Tonga and Lenje belong to the same language group. However, the main difference between Tonga and Lenje NP is phonological.

Chitebeta further observes that GB theories such as X-Bar theory, Theta-roles, Case Filter, Move-Alpha, Projection Principle and Binding Theory apply to both Tonga and Lenje. It emerges that these two languages have great similarity in their morphological structures with an interrelated class system. She found out that the NP structure of Tonga and Lenje is N {Adj, Dem, Num, Quant, N. Poss (+N), Conj + N + Poss}. Her work and the current study are similar theoretically as the syntactic analysis of the NP in both languages was carried out using the GB and in particular the X-bar Theory.

Iorio (2011) conducted a study on Kibembe noun phrase, a Bantu language spoken in DR Congo. He states that Kibembe has 19 noun classes and that the rich morphological concord is the cause for possible subjectless sentences in Kibembe. However, whereas number morphology is extensive and overt, the case-marked system in Kibembe is impoverished. The forms that exist for singular and plural use do not vary with regard to their functions. Whether they resemble subject pronouns (nominative case) or object pronouns (accusative case). The morphological characteristics of the language make up for the impoverished case system by allowing subject and object markers. The only personal pronouns are:

7.   Ine   'I'   betʃ   'we'
        Obe   'you'   benʊ   'you'
        Ewe   'he/she/it'   ebo   'they'
        eyʔo 'it' (inanimate)   bibyo   'they' (inanimate)
        (Iorio, 2011:53)

Concerning word order within the noun phrase, Kibembe shows little variability despite the rich concord patterns. For a noun phrase containing all classes of modifiers, these word orders are allowed: (a) Demonstrative > Noun > Possessive > Quantifier > Adjective > Genitive Phrase (b). Demonstrative > Possessive > Noun > Quantifier > Adjective > Genitive Phrase. He found that the gender noun system and the 19 noun classes are mainly responsible for the intricate agreement relations within and beyond the nominal domain. Each element needs to be marked by an appropriate class prefix, encoding the grammatical number, gender and person.

There are studies conducted on the Niger-Congo NP. Nweke (2011) investigates the Igbo noun phrase resultant effect in sentence construction. The study highlights the impact of word order on the concept of the noun phrase in the Igbo language based on the Minimalist approach. He found that according to Minimalist Program, Igbo is a head-initial language. It has no determiner phrase because the only determiners that exist in Igbo are 'a' (this) and 'ahu' (that) and they must be preceded by an obligatory noun. There is no room for the determiner to come first in the Igbo phrase order. Also, Igbo has a head-first feature. He used the theory to compare English and Igbo. His study relates to this study in terms of the position of determiners in Igbo also a Niger-Congo language.

8. Nwoke biara ebea
   A man came here   (Nweke, 2011:17)

English and Igbo have the same word order (SVO). Similarly, Igbo has a maximal projection as English. He gives the example:

9. *Nwoke joro njo* 'man is bad'. (Nweke, 2011:17)

Nwoke onye ugegbe anya joro njo 'man with eyeglasses is bad'. 'Nwoke' is the lexical projection while *'nwoke onye ugegbe anya'* is its maximal projection.

Nweke (2012) assesses the function of pro-nominalization in Igbo grammar. He claims that the Igbo pronominal system is simpler than the English pronominal system as the latter has more inflections in gender and person. For example, the third person singular undergoes a change in gender; -he for masculine, -she for feminine and -it for inanimate, but in Igbo 'ọ' is used for all gender. He also identified five functions of pronominal in Igbo grammar. These functions are subject, direct and indirect object, possessives and expletives. He is of the opinion that pro-nominalization has a core role in Igbo grammar. Though he used a different theory, his study is related to the current study in regard to the functions of NP.

Makka (2011) describes the morphology of Jenjo nominals and vocabulary. Her study shows how Jenjo nominals and vocabulary are formed: nouns formed from verbs (de-verbal); nouns derived from other parts of speech; noun plus another noun to form another noun; noun+conjuction+noun (numeral); verb-based compound nouns and adjectival compound nouns.

Makka's study informs the current study on the elements that form the Jenjo nominals which are: nouns, pronouns and numerals. However, the two studies differ in theory, approaches and scope since hers does not cover the NP functions.

2.1.2 Studies on NP Using X-bar Theory

Radford (1988) presents an extensive support for the existence of the intermediate category (N-bar) that is between word-level and phrase-level categories. He argues that there are nominal constituents that are larger than the Noun but smaller than a full nominal phrase. From his argument, the phrase 'the king of Jen' constitutes a small nominal phrase 'king of Jen'. He further argues that determiners and adjunct PPs may be optional in the noun phrase structures and he summarizes the rules that can serve in the analysis of noun phrase structures.

In the same vein, Carnie (2000) observes that there are three levels of structure: specifiers, adjuncts and complements. The general X-bar theoretic rules are as follow:

Specifier rule: XP $\longrightarrow$ (YP) X′ or   XP $\longrightarrow$ X′ (YP)

Adjunct rule: X′ $\longrightarrow$ X′ (ZP) or   X′ $\longrightarrow$ (ZP) X′

Complement rule: X′ $\longrightarrow$ X (WP) or X′ $\longrightarrow$ (WP) X. (Carnie, 2000:129)

The options within the rules were parameterized to capture differences between languages. The rules are relevant to this work in that the theoretical rules cut across languages, Jenjo included. In connection with this, Jacobsen (1993) states that X-bar syntax is a significant component in the structure of a modern Transformational-Generative Grammar and an essential part of the structure of Universal Grammar. Therefore, it can be extended to any other language.

Haegeman (1994) adds that the part of the grammar regulating the structure of the phrase is known as an X-bar theory. According to her, X-bar theory brings out what is common in the structure of phrases. All phrases are headed by one head. The head of the projection is zero (X°). Heads are terminal nodes: they dominate words. X-bar differentiates two further levels of projection. Complements combine with X to form X′ projections; adjuncts combine with X′ to form X′ projections. The specifier combines with the topmost X′ to form the maximal projection XP.

White (2006) conducted a study of X-bar and Standard Arabic. He sheds more light on the advantages of X-bar theory instead of phrase structure rules and reveals the consistency of X-bar theory towards all phrasal categories. White's (2006) view Standard Arabic as DP and not NP. He states that the DPs in Standard Arabic exhibit a little variation. Determiners in Arabic fail to detach from their relevant NP complement. Standard Arabic chooses not to spell out the content of the DPs if the NPs are attached to the determiners. He adds that X-bar theory is flexible enough to incorporate all cross-linguistic variation. White (2006) study is relevant to the present work because it gives insight on the application of the theory on a language that is different from English which the theory was first applied to.

Offiong (2011) examines the internal syntax of NPs in Efik, a Lower-Cross language of Niger-Congo family spoken in Southern Cross River State, Nigeria. Taking into account the various types of modifying elements and their position in relation to the heads of NPs, he investigates the grammatical

affinity that holds between syntactic constituents like the complement, adjunct, and determiner with the head of the NP and proposes an analysis of the relevant grammatical functions of NPs in Efik using X-bar theory. His findings show that Efik has three-word order typologies. These are the pre-nominal modifier, post-nominal modifiers, and neutral order. For prenominal elements, the constituents of the NP that precede it are (Quantifier) (Ordinal Number) (Adjective) noun. Post-nominal are N (Poss) (Cardinal numeral) (Dem/ Det). He indicates that the elements are optional. The neutral order involves a noun, not modified by elements before or after it. The prenominal modifier elements that precede the noun are quantifier, ordinal, numeral and adjective for examples:

16. Úsúk ńdiye   ibán
Q   beautiful-PL woman-PL
   'Some beautiful women'.

17. Ákpá édiyě anwan
     First   beautiful-SG woman-SG
     (The) first beautiful woman'.

18. Kpúkpru ńdito
     Q   children-PL
   *'every children'

19 ányán akpáráwá
    Tall-SG youth-SG
   '(A) tall youth' (Effiong, 2011:98-99)

The elements that post modify are possessive, cardinal numeral, determiner and demonstrative. Example are:

20. Mmótó été mi
    Car   father PRO
    'My father's car'.

21. Úfok Mensah
    House Mensah
    'Mensah's house'.

22. Mmótó îtión
    Car   five
    'Five cars

23. Été émi
    Man Dem
    'This man (here)'. (Effiong, 2011:101-102).

He concludes that Efik has an inflexible word order in relation to the head noun and its modifying elements. His work is similar in the sense that Jenjo has pre-nominal elements before the head noun such as determiners or quantifiers and adjectives, for instance, *ləkã e ifɨ siyasa hẽ* 'almost all politician' *ke ifɨ* 'each person' *kwi iye* 'old woman' and post-nominal elements are quantifiers, demonstratives, determiners, possessives and adjectives e.g. *e iye ihyãnɨng* 'women many', *pisahu le* 'school that', *vəaka de* 'city the' and *dəro mi* 'book my'. Lastly, it also has a noun with nothing before or after it, such as *e sehywī* 'brethren'.

Wabwire (2010) analyzes the NP in Olukhayo, a Luyha dialect in Western Kenya using X-bar. He found that the Olukhayo NP has a definite structure; it has post-determiners and modifiers. Few pre-determiners such as possessives, distributives and demonstratives occasionally occur in Olukhayo NP. This study shares the same theory and lexical category with the present study. They differ in terms of the language group.

Dantata (2014) compares English and Kambari on the distribution and interpretation of noun phrase.

He discovers that English and Kambari exhibit similar patterns of NP distribution, follow the SVO word order, has similar pronominal system though Kambari lacks gender distinction like most Bantu languages. His findings also showed that English reflexives agreed with their antecedents in person, number and gender while Kambari reflexives agree with their antecedents in person and number only because Kambari lacks gender distinction. His study is on distributing and interpreting NPs within the confines of Binding theory between English and Kambari. This study is related to ours in that both use the GB theory.

2.1.3 Studies on the Syntactic Function of NPs

Noun phrases have specific functions in clauses or sentences. Downing and Locke (2006) gave the criteria for classifying these functions. They are the determination by the verb, position, ability to become the subject and realizations of these functions. The NP is the most flexible phrase type regarding different syntactic functions. It is typically used in the clausal functions of the subject, object or predicative (Vennestal, 2004).

Tallerman (2011) states that, syntactic functions of the noun phrase are known as grammatical relations because they describe NPs in terms of their relations with the verbs of which they are an argument. The two most significant grammatical relations are SUBJECT and (DIRECT) OBJECT.

Oro (1992) states that the English noun phrase functions as follows: subject, direct object, indirect object, the complement of a preposition, subject predicative, object predicative, adverbial, pre-modifier of a noun, and

apposition in a sentence and a pre-modifier in adjective and adverb phrase. It also functions as a discontinuous noun phrase, for example, 'The time was coming for me to go head or give up'. Similarly, Huddleston and Pullum (2002:327) account for the functions of noun phrase as follows:

I was talking [*to the doctor*].   [PP]
I like [*Sue's analysis of the passive construction*].   [Direct object]
 Fred arrived the day before yesterday.   [Adjunct in clause]
 The nail was [*three inches* long].   [Modifier in AdjP]
 Fred arrived [*a whole day* late].   [Modifier in AdvP]
The wreck was discovered [*a mile* under the sea].   [Modifier in PP]
She was writing a treatise on [the opera *'Carmen'*]. [Modifier in NP]
I finally met his wife, a distinguished anthropologist. [Supplement]
Elizabeth, your taxi is here.   [Vocative]

According to Broekhuis & Dikken (2012), noun phrases in Dutch can occur in all argument functions. Some noun phrases can function as the (nominative) subject of the clause, as (accusative) direct object, as a (dative) indirect object and as a complement of a preposition. The study is related to ours in terms of the NP functions.

Wabwire (2010) studies the function of the Olukhayo noun phrase, a Luhya dialect of Western Kenya. He notes that the Olukhayo NP has a number of syntactic functions; the NP can function as the subject, object, direct object, indirect object, subject complement, object complement, the complement of a preposition and adverbial in a sentence. This study is similar to the present study in terms of the theory and the NP functions.

Obatoye's (2011) study on the Koro-Ija noun phrase, a Niger-Kordofanian language spoken in some parts of Plateau, Niger and Kaduna States, Nigeria; shows that the Koro-Ija NP functions are as follows: subject of a sentence, object of a verb, indirect object of a verb, objects of a preposition, as complement of preposition and as appositive in the object and subject position. These studies are similar to the current study as far as the syntactic functions of the noun phrase in Jenjo sentences are concerned.

There are no known studies on the noun phrase syntax or the syntactic functions of NPs of Adamawa-Ubangi languages. Filangwa (1994) conducted a research on the comparative analysis of the grammatical structures of English and Jenjo languages. His study is based on the notion of comparison of Tense and Aspect in the verb system of the two languages. He establishes the similarity of the two languages to the notion of time- past/present/future. He points out the SVO word order of Jenjo. His work gave useful insights on the SVO.

2.2 Theoretical Framework

X-bar theory is one of the modules of Principles and Parameters popularly known as Government and Binding theory. Other modules under this theory are Case theory, Binding theory, Bounding theory, Theta theory, Government theory and Control theory. X-bar was proposed by Chomsky (1970), further developed by Jakendoff (1977) and even further by Radford (1988). An X-bar theoretic understanding is possible in syntax. The theory tries to identify language universal syntactic properties as well as language-specific features.

It provides an opportunity for discovering the variation between languages. The x-bar theory accounts for the category that is larger than a word and smaller than a full phrase that is the maximal projection, intermediate projection and minimal projection. X represents specific syntactic categories such as N -Noun, V-Verb, Adj-Adjective, P-Preposition and Adverb Phrase. XP is a cover term for Noun Phrase, Verb Phrase, Adjectival Phrase, Prepositional Phrase. X-bar theory is endocentric; meaning that each head projects a phrase. For example, in the noun phrase *'the book'*; *book* is the head. In the verb phrase, *'write a letter'* *'write'* is the head. There are three levels that are needed to capture the relationship between heads and their complements. as shown below:
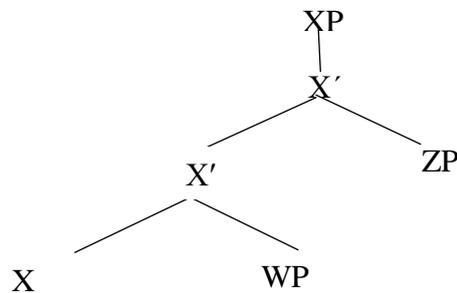
Source: (Carnie, 2000:116)

The XP is the full phrase which is the maximal projection, X′ is the bar level that is the intermediate level which contains the lexical category (head), complement and adjunct.

An X Phrase comprises an optional specifier and an X-bar in any order.

XP ⟶ (specifier), X′ XP means X phrase it could be NP VP etcetera.

$$\begin{array}{ccc} \text{XP} & & \text{XP} \\ \diagup\diagdown & \text{or} & \diagup\diagdown \\ \text{Spec } \text{X}' & & \text{X}' \text{ Spec} \end{array}$$
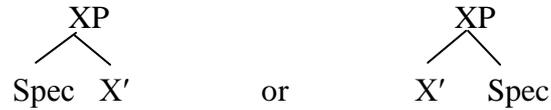
Carnie (2000, p. 129), proposes X-bar theoretic rules as follow:

      Specifier rule: XP   YP (X′) or XP   X′ (YP).

A phrase (XP) contains optionally another phrase and a bar level projection (X′).

      Adjunct rule: X′   X′ (ZP)   or   X′   (ZP) X′.

A bar-level projection (X′) consists of another X′ and another phrase (recursive).

      Complement rule: X′   X (WP) or   X′   (WP) X.

A bar-level projection (X′) contains a head of the same category (X) and optionally another phrase. He uses these variables to capture cross-categorical generalization. These rules have two options. This means that the specifier, complement and adjunct can emerge on either side of the head.

Determiners expand N-bar into N-double-bar.Adjuncts expand N-bar into N-bar.Complements expand N into N-bar.A noun phrase containing a determiner, adjunct and complement would have the schematic structure below.
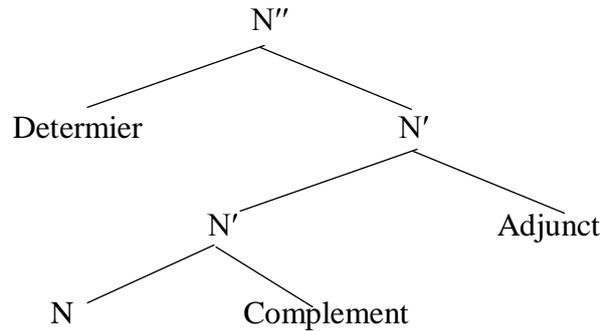
Source: (Radford, 1988:177)

From the above structure, Determiners are sisters of N-bar and daughters of N-double-bar; Adjuncts are both sisters and daughters of N-bar, and Complements are sisters of N and daughters of N-bar. Complements are always closer to the head than adjuncts. For example in, *The Emir of Jalingo with a red cap, of Jalingo* is the complement while *with a red cap* is an adjunct.

According to Radford (1988), the NPs can be generated by a set of Phrase Structure Rules such as N″→ D   N′ [Determiner Rule]

N′ → N′   PP [Adjunct Rule]

N′ → N PP [Complement Rule]

To account for Complements and Adjuncts as optional constituents of NP, let us look at the above example.

The emir [*of Jalingo*] Complement, no Adjunct

The emir [*with a red cap*] Adjunct, no complements

The emir (no Complement, no Adjunct)

The rules for these are:

N′ → N (PP) [Complement Rule]

N′ → N′ PP [Adjunct Rule: optional]

The prepositional phrase in the bracket under Complement Rule indicates an optional constituent. This means one can expand an N-bar into an N with or without an optional PP Complement. The Phrase Structure Rule (PSR) is modified to cater for the option of Complements and Adjuncts. In Radford's argument, Adjunct Rule is optional hence can be skipped. Since the Adjunct Rule is optional, one can choose to apply it or not. Furthermore, his claim of *one* in English can function as a pro-N-bar but not pro-N. Pro-forms do not replace word-level category. That is, *one* follows by a complement is poorly formed.

Radford (1988) presents three prenominal modifiers namely: Determiners, Complements and Attributes. He argues that the three different pre-modifiers have different structural properties.

Determiners expand N-bar into N-double-bar.

Attributes recursively expand N-bar into N-bar.

Complements expand N into N-bar.

Attributes have the same function as Adjuncts. There is a distinction between Complement NPs and   Attribute NPs. For example:

The French-German teacher. (Carnie, 2000:123) projected on the tree diagram below.
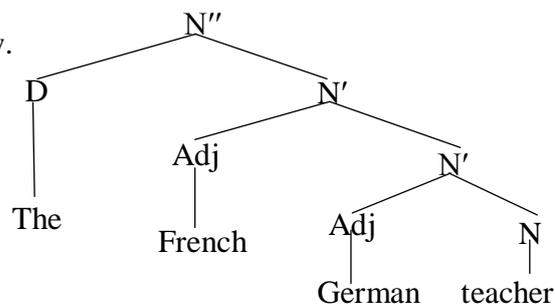
In the above structure, *French-German* is an Attribute. Such a phrase is ungrammatical in Jenjo language. A structure like this can generate a set of Phrase Structure Rules as:

N″ ⟶ (D) N′ [Determiner Rule]

N′ ⟶ NP N′ [Attribute Rule: optional]

N′ ⟶ (NP) N [Complement Rule]

Attributes are prenominal modifiers of the head noun; it means that Complements must appear close to their Head Noun than Attributes. Complement NPs are generated to the left of N whereas Attributes NPs are generated to the right of N-bar. Also, the Attribute Rule is recursive since it has N-bar in its input and output. It, therefore, means that many Attribute NPs will be stacked on top of each other. This can be seen in the structure below.
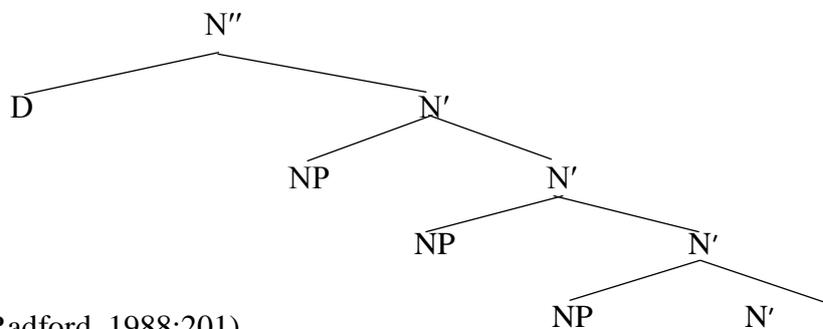
(Radford, 1988:201)

The Attribute Rule can be reapplied to expand the lowest N-bar that is recursive until it is skipped and passed on to the Complement Rule. If the optional NP Complement is omitted and the lowest N-bar is expanded as N, the resulting structure will expect that they can be freely stacked on each other.

2.3 Chapter Summary

The chapter has looked studies on the noun phrase structure, studies on NP using X-bar theory and studies on the syntactic function of NPs. The reviewed studies cut across Africa and the rest of the world. The chapter also has presented the theoretical framework that guided the study. The chapter that follows will present the research methodology.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter presents the methods and procedures of how data was obtained and analyzed. This includes research design, sampling techniques and sample size, data collection procedures, data presentation and analysis, ethical considerations and chapter summary.

3.1 Research Design

The study used a descriptive analytical research design in collecting, describing and analyzing the data. This enabled the researcher to use secondary data and incorporate the researcher's intuition. A descriptive study enables one to get a wider view of an issue as opposed to other designs. Therefore, this design was applicable to the current study because it helped in describing the noun phrase structure and its functions.

3.2 Sampling Techniques and Sample Size

There was a systematic sampling of every third book from the list of 15 Jenjo New Testament Bible books. The following books were sampled: Luke, Galatians, 11 Thessalonians, Titus and 11 Peter. Random sampling method was used to select one chapter from each of the selected five books. Lastly, noun phrases and sentences were purposively sampled from each of the selected chapters considering the structures and various syntactic functions. Phrases that are not relevant to the study were not sampled. In addition, data was intuitively generated by the researcher as a Jenjo speaker whenever necessary.

3.3 Data Collection Procedures

The noun phrases and sentences were elicited from the five books sampled from the Jenjo New Testament Bible. Introspection was also used to generate data. This is referred to as native speaker competence (Chomsky, 1977:40). The data so collected was counter-checked with three other native speakers of Jenjo.

3.4 Data Presentation and Analysis

The study used a descriptive approach in analyzing the data obtained. Data is presented in italicized font with its word for word and free translation in English. An explanation follows each noun phrase or sentence. Next, the researcher represents the structures on X-bar tree diagrams to show their positions and explain the trees based on the X-bar schema. Finally, the syntactic functions of the Jenjo NP in the sentences are identified and described.

3.5 Ethical Considerations

The researcher obtained a letter of approval to carry out the research from the Graduate School. The data was duly verified with other native speakers of Jenjo after they gave consent.

3.6 Chapter Summary

This chapter has provided the research design, sampling techniques and sample size, data collection procedures, data analysis and presentation and lastly ethical considerations. The next chapter provides the data analysis and presentation extensively.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

This chapter contains the analysis of the data obtained. The presentation and analysis is based on the objectives of the study. Data is presented in an italicized font with a word for word translation and its English interpretation. An explanation follows each structure.

4.1 The Description of Jenjo NPs

This section describes the elements within the Jenjo NP structure from simple to the complex.

4.1.1 Simple NPs

A simple NP is a phrase that contains nouns alone or a noun with one to three simple modifiers. Dryer (2007) sees simple noun phrase as one which contains nouns and pronouns only with simple modifiers such as articles, adjectives, demonstratives and numerals.

(a) Noun Alone

Nouns and pronouns occur as head alone in Jenjo NPs and the pronouns could be personal or interrogative. Examples are:

1a.　*esehyw̄i*
　　E-　　sehyw̄i
　　Pl-　　Brother/sister
　　 'Brethren'

The above example in (1) illustrates a lexical noun that can occur alone in Jenjo NP. *'e'* is a plural marker in Jenjo, it is not preferable to say *'sehywī'* without the plural marker *'e'* if one is referring to 'brethren/brothers/sisters' even though 'brethren' in English is a plural form of brothers. The word *esehywī* does not distinguish gender. The meaning is based on the context it is used in. But one can say *'e hywī'* which means 'siblings' or *'sehywī'* to mean 'fellow'. Jenjo pronouns, personal and interrogative can be head alone. See (1b) & (1c) below.

1b.   *O*
   O   *wu*
   He/she   *come*
   'he/she came

O 'he/she is a personal pronoun that stands as an NP alone in the above sentence.

1c.   *wə yɨ ba?*
   wə   *yɨ* *ba?*
   Who   *steal* *goat*
   'Who stole goat'.

Wə'who' is an interrogative pronoun that stands alone as an NP in the sentence. This corresponds with Quirk et al. (1985) who observe that the English NP contains head alone and the head of the NP could be the noun, pronoun or nominal which is the most important element in an NP. Also, Makka (2011) Jenjo nouns are nouns, pronouns and nominals.

(b) Determiner+Noun

The Jenjo simple NP contains the head noun and determiners. These determiners could be articles, demonstratives, possessives, quantifiers etc. They occur after the head noun in the phrase i.e. post-nominal. Examples are:

2a.   *Vəakã de*
        Vəakã   de
        City   the
        'The city'.

2b.   *Kwəfi le*
        Kwəfi   le
        Church   that
         'that church'.

Jenjo demonstratives are post-modifiers. Also known as determiners.

2c.   *Nɨngchinɨng o*
        Nɨngchinɨng   o
        Wealth   her
         'her wealth'

Possessives form parts of the determiners in Jenjo. This is similar to Rugemalira (2007) where determiners like the possessive can appear before the head noun.

2d.   *Eiye ihyãnɨng*
        E-iye   ihyãnɨng
        Pl-woman   many
         'Many women'.

Jenjo quantifiers occur as a determiner after the head noun in a phrase. This study corresponds with Lusekelo (2009) whose study in Nyakyusa NP attests that determiners (specifiers) are post-nominal.

(c)Determiner+Noun+Adjective

3a.   *Ibwi a fíli̵*
      Ibwi   *a*   *fíli̵*
      Man   *Det*   *tall*
      'A tall man'.

The Jenjo simple NPs contain determiner, adjective and noun. Jenjo has both definite and indefinite articles. The indefinite article 'a' is used to refer to things not mentioned by the speaker before. The above example in (3a) is referred to any 'man' *ibwi*. The definite article *de* 'the' as seen in (1a) is used to refer to something known to the speaker and the hearer or something in the previous discourse. Adjectives are post-modifiers in Jenjo NP.

3b.   *Marori de tswɘ́ni*
      Marori   *de*   *tswɘ́ni*
      Rice   *the*   *small*
      'The small rice'.

This is another example of an adjective that post-modifies in Jenjo NP. They can occur with mass nouns to show agreement with the head noun. This corresponds with Iorio (2011) that noun phrase containing all classes of modifiers put adjective as a post head-modifier.

(d) Noun+Numeral

Numeral such as cardinal and ordinal are part of the simple NPs in Jenjo. They are post-nominal elements.

4a.   *Eiləng bwagyɛ*
     E-iləng   *bwagyɛ*
     Pl-Calabash   *four*
     'Four calabashes'.

4b. *Yɨ ochi*
     Yɨ   *ochi*
     Child   *first*
     'First   *child'.*

The Jenjo cardinal and ordinal can co-occur in the Jenjo NP as seen in (10a)

below.

4.1.2 Complex NPs

Dryer (2007) states that a complex NP contains more complex modifiers such

as genitive or possessive construction and relative clauses, as in English

London's mayor or the mayor of London. The examples of complex NPs in

Jenjo can be seen below.

(a) Noun+PP

5a. *Sede de ku hywe*
     Sede   *de*   *ku*   *hwe*
     Money *the*   *on*   *table*
     'the money on   *the table'.*

Note that the PP appears after the head noun *sede de* 'the book' as in English

(Dryer 2007). That is to say the PP *ku hywe* 'on table is post-nominal.

5b.   *Nɨngabe və fangwa eifɨ*
     Nɨngabe   *və*   *e-ifɨ*   *fangwa*
     Evil   *of*   *Pl-people* *world*
     'Evil of the people of the   *world'.*

The example in (5) above shows the Jenjo head noun with a PP as its post-modifiers.

(b) Noun+Genitive NP

6. *Emwabwi və Yeso*
    e-mwabwi   və   Yeso
    Pl-disciple   of   Jesus
    'Disciple of Jesus'

It is observed that the Jenjo genitive NP is part of the complex NP. The genitive NP *Emwabwi və Yeso* shows possession.

(c) Determiner + Noun + PP

7a. *vəakã de a Jos*
     vəakã   de   a   Jos
     City   the   of   Jos
     'the city of Jos'.

7b. *Ivə de a Jen*
     Ivə   de   a   Jen
     King   the   of   Jen
     'The king of Jen'.

The Jenjo nouns, determiners and PP form part of the complex NPs. In an NP that has determiner and PP only, determiner precedes the PP as shown in (7a and b) above.

7c. *Kē kəakulɨ təngsəkwə de nɨ*
     Kē   kəakulɨ   təngsə   kwə   de   nɨ
     every   chair   in   room   the   Compl
     'Every chair in the room'.

The determiner *kē*'every' precedes the head noun *kəakulɨ* 'chair' *kē* selects only count nouns in Jenjo. This contradicts with Rugemalira (2007) where determiners of this kind are post-nominal. This is one of the rare circumstances in Jenjo where determiner precedes the head noun in an NP that contains PP.

(d) Noun+Relative clause

The examples below show relative clauses as modifiers in Jenjo complex NP. The underlined part of the noun phrases are the relative clauses.

8a.   *Dəro <u>nɨ a sakə nɨ</u>*
The book which you read'.
        (H+Adjunct)

The word *nɨ* is a relative pronoun, demonstrative pronoun and a completive depending on the context it is used. In (8a) & (8b) it is observed that the first *nɨ* that occur immediately after the head noun is a relative pronoun while the last one is completive. These relative pronouns are used to link or connect the noun (nominal) with the rest of the clause or phrase.

8b.   *Eimwə de <u>nɨ ngəkə keke nwa nɨhyã</u>*
'The children who rode bicycles on the road'.
        (H+Adjunct)

As seen in (8), the Jenjo relative clauses are post-nominal. This does not correspond with Mchombo (2006) and Iorio (2011) where the relative clauses use relative markers. Jenjo has relative pronouns as seen in the examples (8 & 9).

(e) Noun+Adjective+Relative clause

9a. *Ho hyɛ <u>nɨ a jə nɨ</u>*
     'The red bag which you bought'.

The Jenjo nouns, adjectives and relative clauses can form a complex Jenjo NP.

The adjectives usually follow the noun before relative clauses as seen in (9).

9b. *Hĭkəng və Itwebɨ Yeso Kristi <u>ni lo ku bə hẽ tsɨyang mambɨ</u>*
     Grace of our Lord Jesus Christ which is with you. Amen.

(f) Noun+Card+Ordinal

10a. *Eimwə bwata ochi nɨ*
E-imwə	*bwata*	*ochi*	*nɨ*
Pl-child	*three*	*first*	*Compl*
      'the first three   children'.

The cardinal and ordinal co-occur as postmodifiers in a Jenjo NP. As seen in

the example (10) above, the cardinal come first before the ordinal.

10b. *Eibwi de bwang ochi*
E-ibwi	*de*	*bwang*	*ochi*
Pl-man	*the*	*two*	*first*
      'the first two men.'

Jenjo numerals are divided into two categories. The cardinal and ordinal, both

are in post-nominal positions. Cardinal has no restriction of occurrence as

post-nominal elements in Jenjo NP. Both can co-occur in a phrase but rarely.

Numerals modify nouns directly in Jenjo. As seen earlier, this contradicts the

order of noun and numerals by (Iorio, 2011) since only the first five numerals

are roots which show agreement with nouns which are formed by taking a

numeral root form and combining it with a concord prefix corresponding to the

class of the chosen head.

This makes the numerals precede the head noun.

(g) Noun + Adjective + Adjective

11a.   *Dəro ahu apɨkang*
      Dəro   ahu   apɨkang
      book   new   nice
      'A new nice book'.

Adjectives can co-occur as post-modifiers in Jenjo. The phrases in (11a) & (11b) do not matter how the adjectives are arranged after the head noun *dəro* 'book', or *imwəiye* 'girl' that is if *apɨkang* 'nice' comes before *ahu* 'new' its meaning still remains or if *mwimwilɨ* 'fat' appears before *hĩhĩlɨ* 'beautiful'.

11b.   Imwəiye hĩhĩlɨ mwimwilɨ
      Imwəiye   hĩhĩlɨ   mwimwilɨ
      girl   beautiful fat
      'A beautiful fat girl'.

12.   *Kwi ibwi afilɨ kəbi mwimwilɨ ikwisɨ*
      kwi   ibwi   afilɨ   kəbi   mwimwilɨ ikwisɨ
      old   man   tall   black fat   lazy
      'An old tall black lazy man'.

A series of adjectives can expand the Jenjo NP but with restrictions, otherwise, there will be ungrammaticality. These are semantic restrictions because Jenjo does not permit a phrase to have several adjectives. Apart from the adjective of age *kwi* which precedes the noun, all other adjectives in Jenjo are post-nominal. They co-occur in an NP. Adjectives expand the projection of an NP with several strings of words. In Jenjo, adjectives mostly occur in post-nominal position and rarely in pre-nominal.

The above NP in (12) contains one pre-nominal adjective and four post-nominal adjectives; referential, *kwi* 'old', qualitative, *fĩlɨ* 'tall', *kəbɨ* 'black' and *mwimwilɨ* 'fat' and classificational *ikwisɨ* 'lazy'. The expansion of this to form a complex NP is restricted and not commonly used. Adjectives modify the head noun in (12) & (13) above and below.

(h) Deteminer+Noun+ Adjectives+PP

13. *Ke ekwi ibwi mi afilɨ amwilɨ bwammɨ nɨ kabi le be le kabu kwalɨ*

ke	e-kwi	ibwi	mi	afilɨ	amwilɨ	nɨ	kabi	le	be	kabu	kwakwali
each	Pl-old	man	my	tall	fat	Det	black	those	with	leg	bow

　　　'each of those my five tall fat black men with bow legs'.

The plural can precede the adjective of age to show number agreement as in *e kwi ibwi* 'old men'. It means that adjectives can mark plurality in Jenjo which corresponds with Offiong (2011) who states that an important requirement of the syntax of adjectives in Efik is that they inflect for plural to modify plural nouns. Jenjo NP is rich in post-nominal modifiers while Efik NP is rich pre-nominal modifiers.

4.1.3 Conjoined NP

Conjoined NPs are formed by conjoining or coordinating two noun phrases (Dryer, 2007). A conjoined NP in Jenjo is formed by coordinating two NPs with the coordinator *bi* 'and'.

14a　*Efarisi bi einyinasɨ lenwa və Musa*
　　　E-farisi　　bi　　e-inyinasɨ　lenwa　və　Musa
　　　Pl-pharisee　and　Pl-teacher　law　of　Moses
　　　'Pharisees and teachers of law of Moses'.

The word *bi* 'and' is a coordinator. It conjoins the NP *efarisi* 'pharisees' and the NP *eiyinasɨ lenwa* 'teachers of law' into one phrase.

> 4b.   *Ibwi de bi ehe wə bwang*
>   *Ibwi*   *de*   *bi*   *e-he*   *wə*   *bwang*
>   Man   the   and   Pl-wife   his   two
>   *'The man and his two wives'.*

Also, in (14b) the conjunction *bi* 'and' conjoined the noun phrase *ibwi de* 'the man' and another noun phrase *ehe wə bwang* 'his two wives into one conjoined noun phrase. The study revealed that, there are simple, complex and conjoined NPs in Jenjo. There are pre-modifiers and post-modifiers in Jenjo NPs, most of the elements in Jenjo NPs are post-nominal. Though, there are rare cases (of pre-nominals elements) as in (7c), (12) & (13) above.

It is observed that the complex NPs structure of Jenjo contains {Det, Adj, Noun, Poss, Adj, Adj, Num, Det, Adj, Dem, PP}. Similar to Rugemalira's (2007) study on the structure of the Bantu noun phrase which is:{Dem, Noun, Poss, Num, Ord, Adj, Quant, Asso}. There are pre-nominal elements in both the Jenjo and the Bantu complex noun phrase structure. It also agrees with the studies by Quirk et al. (1985), Huddleston (1988), Chitebeta (2007), Lusekelo (2009), Iorio (2011), and Nweke (2011) as seen earlier in the study. Their studies show that the noun phrase contains both pre-nominal and post-nominal elements. However, some of the studies show that pre-nominal elements are rare. In Jenjo, the only pre-nominal elements are *kwi* 'old', *ké* 'each' and *kē* 'every'.

The following section gives a theoretic X-bar account of Jenjo NPs in tree diagrams.

4.2 The Jenjo NPs within X-bar

This section projects the Jenjo noun phrase on the X-bar tree diagram. The tree diagrams are assigned based on schematic forms of X-bar from the simple to the complex NP. It gives the X-bar account of some of NPs described in 4.1. A symbol with this sign (″) represents a full phrase and (′) represents a phrase. H means head and N means noun. For each NP there is a grammatical and X-bar terminology given.

Head

15a.*Esehywī*
    Brethren

15b. N″
      |
      N′
      |
      N
      |
   E sehywī (brethren)

The head noun is an obligatory element in an NP and it can be projected maximally as shown in (15) above. That is to say the determiners, complements and adjuncts are not obligatory in Jenjo NP. Example (15b) above is the theoretic account of the head alone of the simple NP in (1a) above.

Det+N

16a.   *Vəakã de*
        Vəakã   de
        City   the
        'The city'.
                        (H+Spec)

16b.   N″
          /   \
        N′   Spec
        | |
        N |
        | |
      Vəakã   de

      city   the
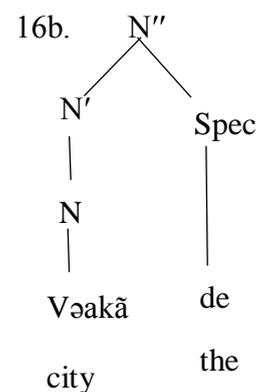
Articles are specifiers in Jenjo and are post-nominals. It is the sister to N′ and daughter to N″. It agrees with Carnie (2000) rules that give options for languages that specifiers are pre-nominal or post-nominal. The study also corresponds with Haegeman (1994) that head of projection is zero (X°̊). The N *vəakã* is the zero projection of the phrase. This is an X-bar account of the NP in (2a) above. This study is also similar to the study by White (2006) in that DP like NP can be projected at word level, intermediate and maximally and could be pre-nominal and post-nominal.

N+Det+Adj

17a. *Marori de tswə́ni*
      Marori   de   tswə́ni
      Rice   the   small
      'The small rice'.
      (H+Adjunct)

17b.   N″
               |
              N′
             / \
           N′   AP
          / \ |
         N   D   △
         | | tswə́ni
      Marori de small
      rice   the
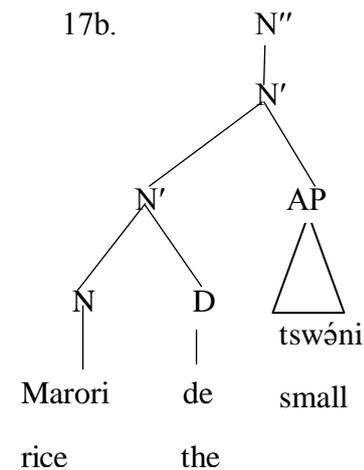
In (17b) above, the N *marori* is the head, the determiner *de* post-modifies the head while the AP *tswə́ni* is the adjunct. It is the adjunct because it does not complete the meaning of the phrase rather it is additional information that the phrase can do without. Because adjuncts are sister and daughter to a bar level, another intermediate category was created to fit into that position. This agrees with Radford (1988) view that NP has minimal, intermediate and maximal category.

N+Num

18a. *Eiləng bwagyɛ*

   E-iləng   *bwagyɛ*

   Pl-Calabash   *Four*

   'Four calabashes'.

   (H+Spec)

18b.
```
            N″
          /    \
        N′      Spec
        |
        N
        |        |
     eileng   bwangyɛ
   calabashes  four
```
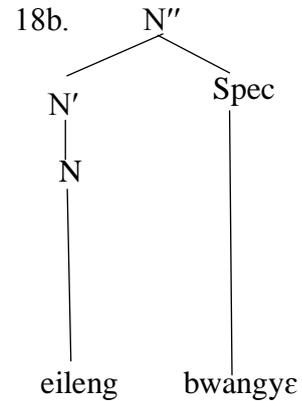
Numerals and nouns formed parts of the calabashes four Jenjo.
Numerals are post-nominal elements in Jenjo and so the specifier in (18b). The
following are examples illustrate how the X-bar theory accounts for the
complex NPs structure in Jenjo.

N+Spec

19a. *Sede a dzungdzung*
   sede   *a*   *dzungdzung*
   money   *a*   *lot*
   'A lot of money'.

19b.
```
            N″
          /    \
        N′      Spec
        |        /\
        N       /  \
        |      /____\
      Sede    a dzungdzung
      Money   a lot of
```
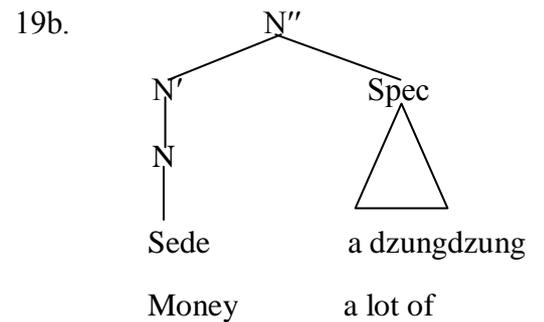
In (19b) the N′ *sede* expands the specifier *a dzungdzung* to N″. Thus, it is a
complex NP. The SPEC that is dominated by N″ and is sister to N′ is a good
example of phrase that is a specifier in Jenjo NP. That is *sede* is the head and *a
dzungdzung* is the specifier.

N+PP (Complement)

(20a) Ifɨ və eifɨ
      Ifɨ   və   e-Ifɨ
      Person   of   Pl-person
      Lit. person of people'.

20b.
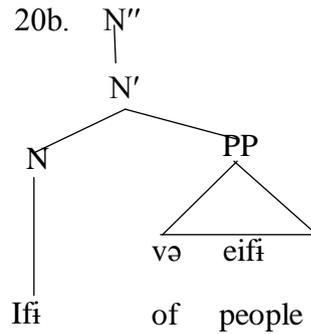
The PP   person   ople' functions as complement of the head noun *ifɨ* 'person'. It is the complement of the head noun because it completes the meaning of the head noun.

N+Genitive NP

21a. *Emwambwi və Yeso*
        Emwambwi   *və*   *Yeso*
        Disciples   *of*   *Jesus*
        'disciples of Jesus
        (H+Complement)

21b.
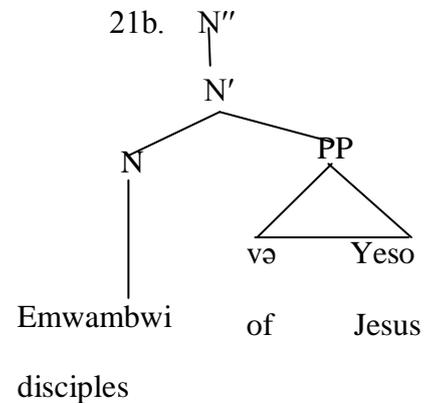
It is observed that the genitive NP *emwambwi ve Yeso* 'disciples of Jesus' could also mean 'Jesus's disciples'. This is similar to English. English has two different kinds of genitive NP as stated by Dryer (2007:177). Genitive NPs follow their head in Jenjo. There are no specifiers, and so there is no sister to bar level (N′).

N+Det+PP

22a. *Kē kəakulɨ təngsəkwə de nɨ*

Kē	*kəakulɨ*	*təngsə*	*kwə*	*de*	*nɨ*
every	*chair*	*in*	*room*	*the*	*Compl*

‘Every chair in the room’.
  (Spec+H+Adjunct)

22b.

```
                          N″
                  _____|_____
                 |                 |
               Spec               N′
                |           _____|_____
                |          |               |
                |         N′               PP
                |          |              /  \
                |          N             /____\
               Kē       kəakulɨ      təngsə kwə de   nɨ
             Every       chair     inside room the compl
```
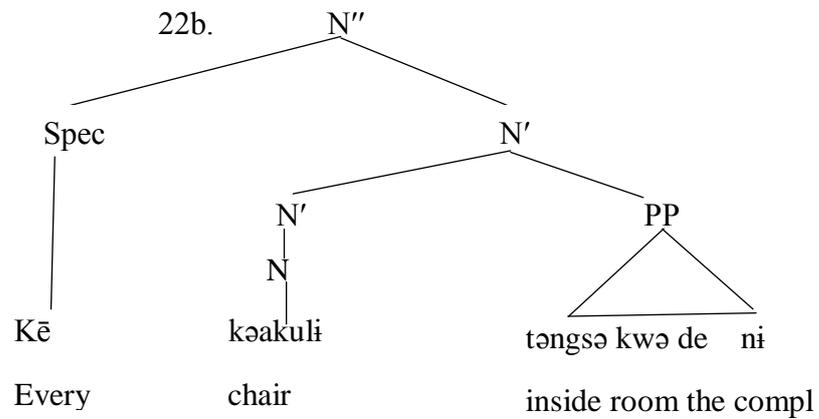
The tree diagram in (22b) has the specifier on the left, the head and the adjunct on the right. The specifier precedes the head noun and the adjunct follows the head noun. This structure is not a common occurrence in Jenjo noun phrases, it only occurs if the noun phrase contains a distributive or quantifier. It reveals adjunct rule that expands N′ into sequence [N′ PP] as stated in Radford (1988:182).

N+Rel. Cl

23a.   *Dəro <u>nɨ a sakə nɨ</u>*
       'The book which you read'.
       (H+Adjunct)

23b.
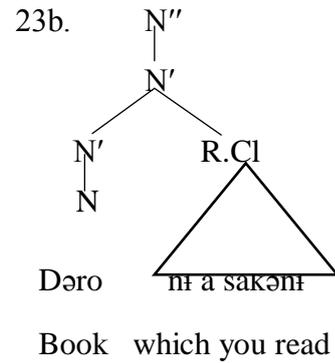
The above tree in (23) illustrates the relative clause in X-bar. The N *dəro* expands to N′ then to another N′ because the N′ which contains the relative clause is not required by the head noun *dəro* 'book'. Hence, an adjunct, adjuncts are sisters and daughter to a bar level (N′).

N+Adj+Rel.cl

24a.   *Ho hyɛ <u>nɨ a jə nɨ</u>*
       'The red bag which you bought'.
       (H+Adjunct)

24b.
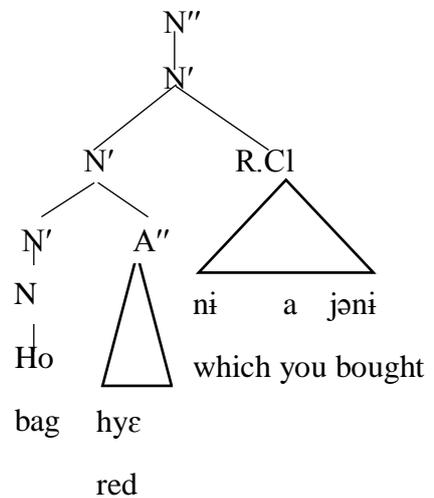
The relative clause as a modifier is an adjunct as seen in (23) and (24) according to X-bar schema. In (24b) adjective *hyɛ* 'red' is an adjunct to the head noun *ho* 'bag' and so it is sister to N′ and daughter to N′.

N+Card+Ord

25a. *Eimwə bwata ochi*

　E-imwə　　　　*bwata*　　*ochi*

　Pl-child　　　　*three*　　*first*

　'the first three　*children'.*

　(H+Spec+Spec)

25b.
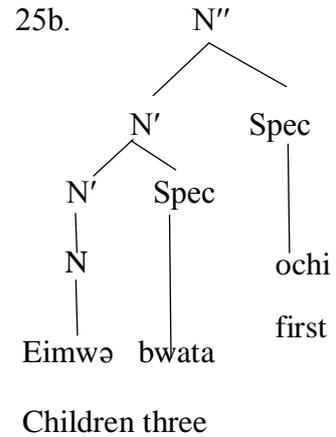
We have specifier co-occurring in (25) above which corresponds to Wabwire (2010) that, Olukhayo NPs can have more than one specifier.

N+Adj+Adj

26a. *Dəro ahu apɨkang*

　Dəro　　*ahu*　　*apɨkang*

　Book　　*new*　　*nice*

　'A new nice book'.

　(H+Adjunct)

26b.
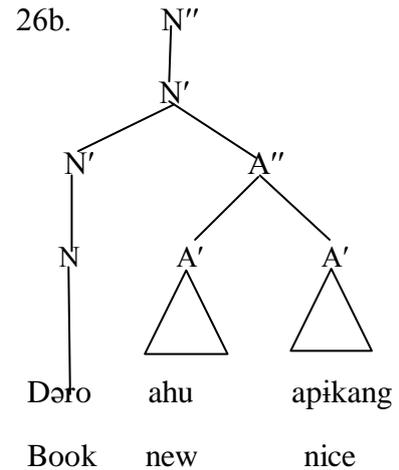
Det+N+Adj+PP

27a *Ké ekwi ibwi mi afilɨ amwilɨ bwammɨ nɨ kabi le be le kabu kwalɨ*

ké	*e-kwi*	*ibwi*	*mi*	*afilɨ*	*amwilɨ*	*nɨ*	*kabi*	*le*	*be*	*kabu*	*kwakwali*
each	*Pl-old*	*man*	*my*	*tall*	*fat*	*Det*	*black*	*those*	*with*	*leg*	*bow*

　'each of those my five tall fat black men with bow legs'.

(Spec+H+Adjunct+Aadjunct)

27b.

```
                              N″
                    ┌──────────┴──────────┐
                  Spec                    N′
                    │              ┌───────┴────────┐
                    │             A″               N′
                    │             △         ┌───────┴────────┐
                   Kē           ekwi       N′              A″
                 Every          old    ┌────┴────┐    ┌──────┴──────┐
                                      N′       Spec  A′           P″
                                      N         │    △            △
                                      │         │
                                    Ibwi       mi   afilɨ amwilɨ nɨ kabi le   be kabu kwakali
                                    man        my   tall fat black those      with leg bow
```

The above complex NP in (27) has multiple adjuncts. These adjuncts can swap their order and the meaning will still be grammatical. The N″ contains specifier, head and adjunct. The first A″ that is sister and daughter to N′ is an adjective that pre-modifies the head noun which is attributive. The third N′ that is dominated by N′ and sister to A″ contains the head noun and it can be full NP because it has the specifier *mi* 'my'. This corresponds with Wabwire (2010) whose study in Olukhayo shows that possessives, distributives and demonstratives occasionally occur in Olukhayo. These are the specifiers that are left-handed in the Olukhayo NP tree diagram which is similar to Jenjo. Also, the current study corresponds to Carnie (2000) who shows that NP can have multiple adjuncts. The illustration that follows is that of conjoined NP in Jenjo.

28a *Efarisi bi einyinasɨ lenwa və Musa*
      E-farisi   bi   e-inyinasɨ   lenwa   və   Musa
      Pl-pharisee   and   Pl-teacher   law   of   Moses
      'Phariseesand teachers of law of Moses'.
      (N+PP)

28b.

```
                                N″
                          /            \
                      N″                  P″
                /    |    \                / \
             N     Conj    N             və Musa
             |      |      |
          Efarisi  bi  einyinasi lenwa  of Moses

          Pharisees and teachers    law
```
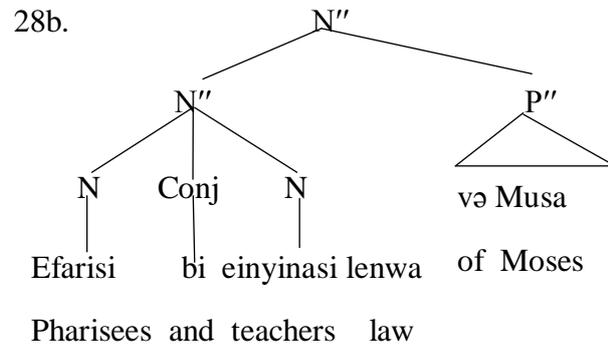
The conjunction *bi* 'and' conjoined the two heads in the NP in (28) above.

The current study shows that there is a relationship between the specifier, complement and adjunct with the head noun in Jenjo NP. This corresponds to the study by Offiong (2011) that grammatical affinity holds between syntactic constituents like determiner complement and adjunct with the head of NPs in Efik using X-bar theory.

The current study does not correspond to Dantata (2014) as he uses binding theory to compare English and Kambari on the distribution and interpretation of noun phrase while this study describes Jenjo noun phrase using X-bar theory. The study discovered that a single noun can function as a noun phrase and it is obligatory. Intermediate categories exist in Jenjo NP just as indicated by (Carnie 2000; Jacobsen 1993 and Radford 1988).

There are nominal constituents that are larger than noun but smaller than full nominal phrase.

For instance, *vəaka de a Jos* 'the city of Jos' constitutes a full noun phrase while *vəakã a Jos* 'city of Jos' is an intermediate category that is smaller than the full NP and larger than a word. Similarly, complements in Jenjo branch at X′ in the tree diagram and are vital to the head i.e. closer to the head than adjunct. Genitive NP and complement PP function as constituents in Jenjo NP. Consider *'kwə və bi'* (room our) 'our room'. This is so because they can occur with pronoun.

It is evident that there is an immediate level between the word level and the phrase level. It is possible to reduce the NP to *vəakã a Jos* that is 'city of Jos' without the determiner *de* 'the'. This shows that N″ can be reduced to N′ since it can occur alone. The above trees show the evidence of N-Bar in Jenjo.

 Similarly, the findings agree with Carnie's (2000) rules that the specifiers, complements and adjuncts can appear on left or right of a head noun depending on the language:

Specifier rule: XP ⟶ YP (X′) or   XP ⟶ X′ (YP)

Adjunct rule: X′ ⟶ X′ (ZP) or   X′ ⟶ (ZP) X′

Complement rule: X′ ⟶ X (WP) or   X′ ⟶ (WP) X

The study also joins Carnie (2000) and Jacobsen (1993), to assert that X-bar is a cross-linguistic theory because the options within the rules cater for differences between languages.

4.3 An X-bar Account of the Syntactic Functions of the Jenjo NP

This section identifies the syntactic functions of the Jenjo NP in Jenjo sentences based on X-bar.

4.3.1 NPs as a Specifier of a Sentence

The subject of the sentence occupies the specifier position in X-bar. The underlined Jenjo NP in (29a) functions as the specifier (subject) of the sentence.

29a
.

Eibwiamwilɨbwatabegyǝng lekǝakã/senwulɨ/									
eibwi	*amwilɨ*	*bwata*	*be*	*gyǝng*	*le*	*kǝakã*	*/sen*	*wue*	*lɨ/*
Men	*fat*	*three*	*with*	*chest*	*Obj.*	*big*	*Aux*	*come*	*Prog*

'The three fat men with big chest are coming'.

29b.

Eibwi amwilɨ bwata be gyǝng le kǝakã	I
Men fat three with chest their big	sen
	are

wulɨ
coming
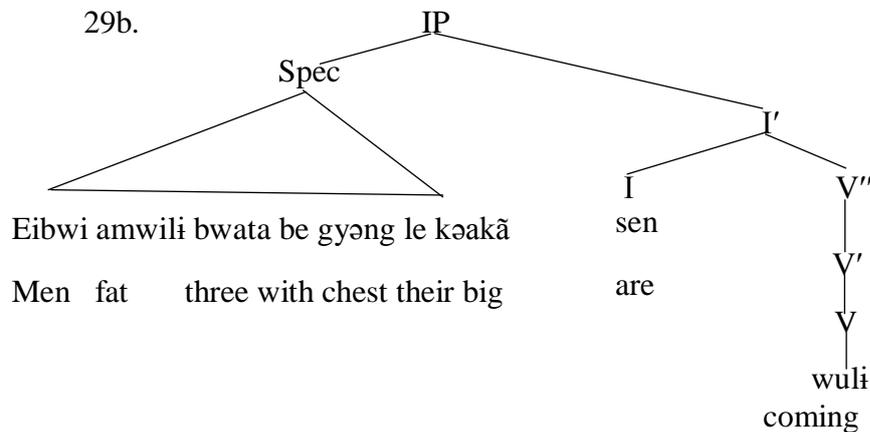
The specifier (NP) in (29b) is subject of the sentence because the subject of a clause/sentence is normally a noun phrase or nominal clause; it is important and precedes the verb in a simple declarative sentence. It agrees with the number concord by prefixing the plural marker before the noun *ibwi* and the auxiliary/copular *sen* because the subject is plural.

Sen after an NP is seen as auxiliary/copular that link the specifier (NP) with the other elements (modifiers) in the sentence. Another example of NP as specifier is seen below in (30). The present study corresponds to the study by Oro (1992) that NPs function as subjects in sentences. In this study, we treat the subject as specifier.

30a   Bɨn /nəbi/ be imwəsahu

    Bɨn   /nəbi/   be   imwə   sahu

    We   talk   with   child   sahu

    'We talked with a student'.

30b.
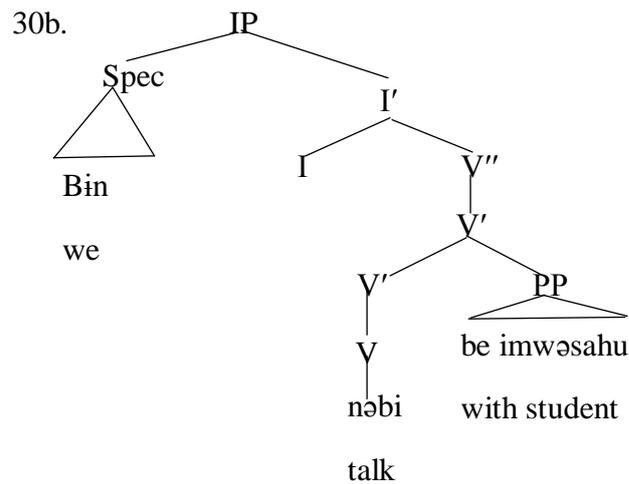
The NP *bɨn* 'we' is the specifier (subject) of the sentence in (30).   The morpheme *n* is attached to the pronoun *bɨ* 'we' to mark agreement in the sentence. This study agrees with Obatoye (2011) whose work in Koro-Ija shows that NPs function as a subject (specifier) in sentences. In our case (X-bar) NPs function as specifier in sentences. Similarly, the current study corresponds to Nweke (2012).

His study shows that Igbo pro-nominals function as the subject, direct and indirect object and completive in sentences which are specifier, complement and adjunct in X-bar view.

4.3.2 NPs as a Complement

Jenjo NPs function as complements in sentences.

31a.   [Eiye / fə́/<u>sedegbaku</u>

  [e-iye   fə́/   <u>sede</u>   <u>gbaku</u>

  Pl-woman   <u>pay</u>   <u>money</u>   <u>head</u>

  'Women pay taxes'.

31b.

```
                    IP
            _____|_____
          Spec              I′
         __|__           ___|___
        /     \         I      V″
      Eiye              |
     women             V′
                    ___|___
                   V       NP
                   |       /\
                   fə́     sedegbaku
                   pay      tax
```
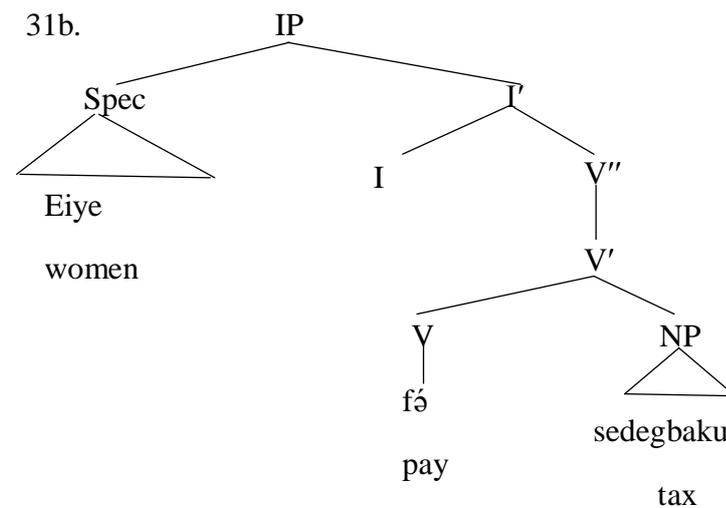
Here, the complement of the verb 'fə́' is *sedegbaku* 'taxes'. That is why it is V is a sister to NP.

32a   Inyinasinɨng de pələ<u>bɨ</u>
  Inyinasinɨng   de   pələ   <u>bɨ</u>
  Teacher   the   help   us
   'The teacher helped us'.

32b.

```
                        IP
              ┌─────────┴─────────┐
            Spec                  I′
           ╱    ╲           ┌─────┴─────┐
    Inyinasinɨng de         I          V″
    Teacher      the                    │
                                        V′
                                  ┌─────┴─────┐
                                  V           NP
                                  │           ╱╲
                                 pǝlǝ         bɨ
                                 help
                                             us
```

The pronouns *bɨ* 'us' functions as the complement of verb in sentence (32).This agrees with Wabwire (2010) that NPs function as object (complement) in sentences. The underlined complement*bɨ* 'us' gets the action of the verb. The complement tells more about the specifier *inyinasinɨng de* 'the teacher'. It is observed that the direct objects are the complement in X-bar term.

33a   nɨngnɨn yidinɨ n /pang/ nɨngtang tsingtsing
*   nɨngnɨ   n   yidi nɨ   n   /pang/   nɨngtang   tsingtsing*
*   Thing   I   love Det I   taste   food   different*
      'Lit. What I love is to taste different kinds of food'.

33b.
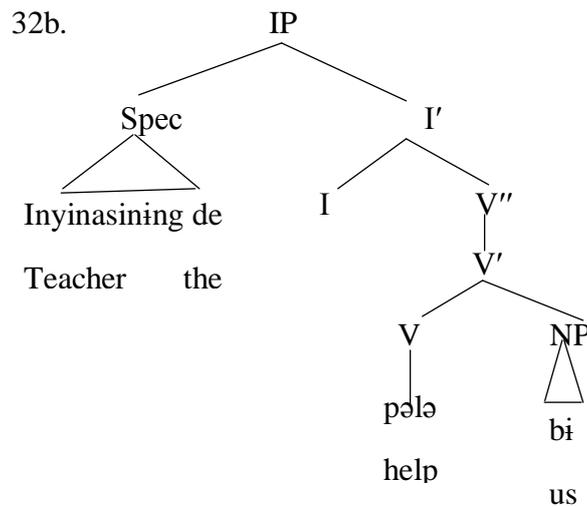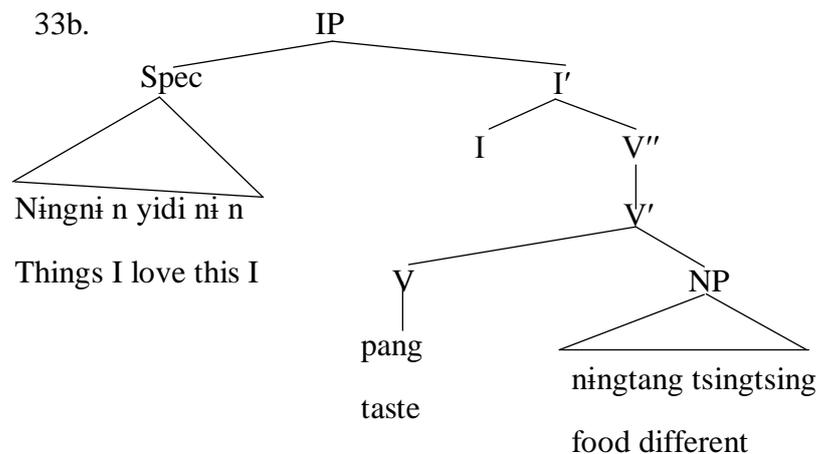
```
                          IP
              ┌───────────┴───────────┐
            Spec                       I′
           ╱    ╲               ┌──────┴──────┐
   Nɨngnɨ n yidi nɨ n           I            V″
   Things I love this I                       │
                                              V′
                                      ┌───────┴───────┐
                                      V               NP
                                      │              ╱  ╲
                                     pang      nɨngtang tsingtsing
                                     taste     food different
```
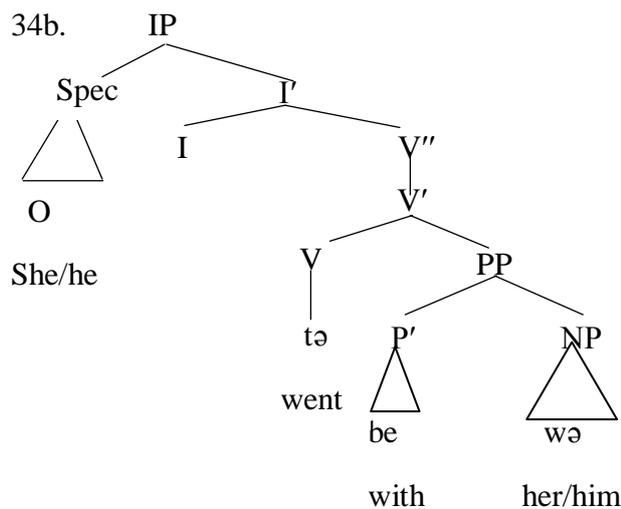
The phrase *nɨngtang tsingtsing* 'food different' is the complement of verb *pang* 'taste'.

It has been observed that the underlined phrases are the complements in the sentences because they meet the principles of complements which is the sister to a head and daughter to a bar level according to X-bar. The Jenjo NPs functioning as specifier and complement which echoes Tallerman (2011) comments that the two important NP grammatical relations are subjects and (direct) objects. Where there is no indirect object, direct object is closer to the verb. So also Broekhuis & Dikken (2012) whose work in Dutch shows NPs in Dutch function as direct objects (accusative) and indirect object (dative). In X-bar, they both the direct and indirect objects function as complements.

4.3.3 NPs as Adjuncts

Jenjo NPs functions as adjuncts in sentences.

34a. *O/tə/ be wə*
      O   */tə/*   *be*   *wə*
      She/he   *went*   *with*   *her/him*
      'She/he went with her/him'.

34b.
```
                    IP
                  /    \
               Spec     I'
               /△\     /  \
                O     I      V''
             She/he          |
                            V'
                          /    \
                         V      PP
                         |     /  \
                        tə    P'    NP
                       went  /△\   /△\
                            be    wə
                           with  her/him
```
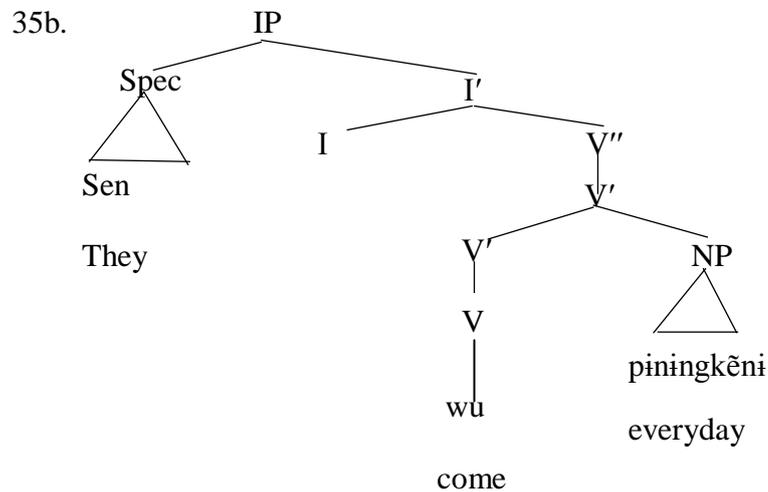
The PP in tree diagram (34b) is an adjunct because it is not required by the verb.

The verb *tə* 'went' is an intransitive verb which does not require a complement. This corresponds to Oro (1992) NPs in English which function as complement of a preposition, adverbial and apposition in a sentence which are adjuncts in X-bar.

35a. *sen/wu/piningkẽnɨ.*
   Sen   */wu/*   *piningkẽnɨ*
   They   *come*   *everyday*
   'They come everyday'.

The NP that is dominated by V′ that is sister to the another V′ is an adjunct.

36 a	*Lehẽbisɨbayipɨ yiifafɨ/lə/betsɨkunɨng*								
Lehẽ	*bisɨ*	*ba*	*yipɨ*	*yi*	*ifafɨ*	*/lə/*	*be*	*tsɨkunɨng*
All	*because*	*you*	*know*	*son*	*human*	*has*	*with*	*authority*

'All because you know the son of man has authority'.

36b.

```
                            IP
         Spec                          I′
                                 I            V″
  Lehɛ̃ bisɨ   ba  yipɨ  yiifafɨ              V′
                                       V′         PP
  All because you know son man
                                       V       be tsɨkunɨng
                                       lə
                                          with authority
                                       has
```
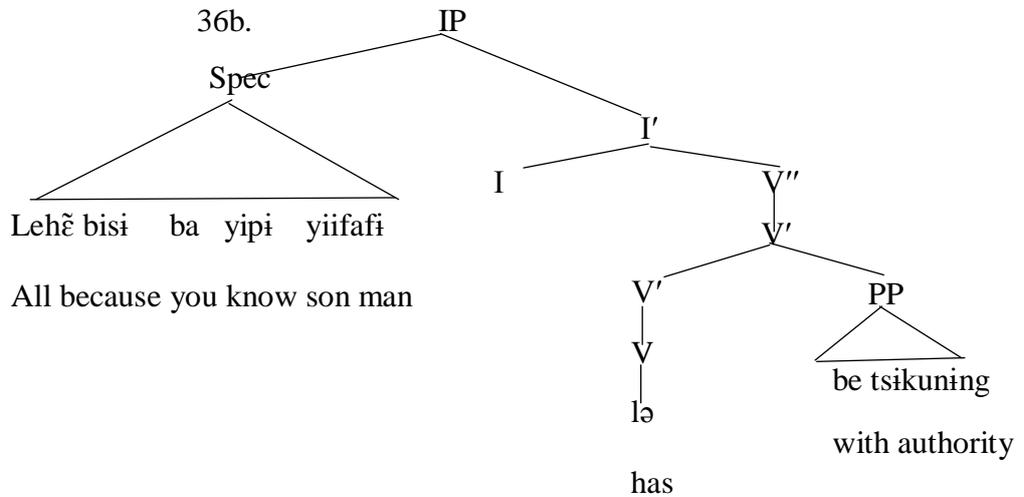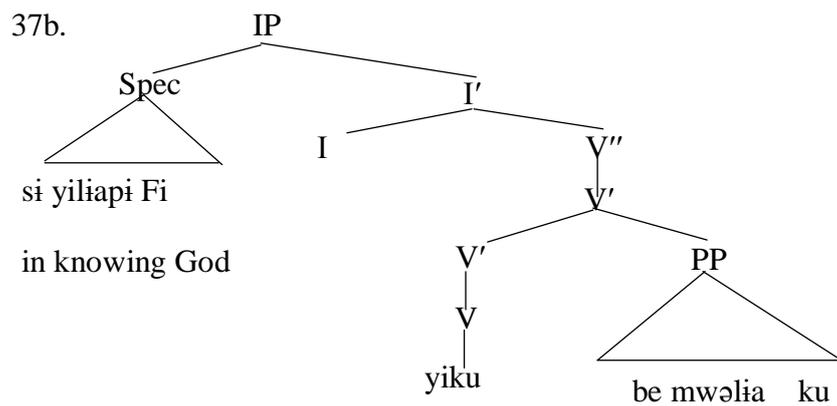
The phrase *be tsɨkunɨng* 'with authority' is the adjunct of the sentence in (36).

It is the sister and the daughter of the V′.

37a.   *SɨyilɨapɨFiba/yiku/bemwəlɨaku*
        Sɨ   yilɨapɨ   Fi   ba   /yiku/   be   mwəlɨa   ku
        in   knowing   God   you   increase   with   holding   head
         'In knowledge of God, increase self-control'.

37b.

```
                       IP
        Spec                      I′
                           I            V″
  sɨ yilɨapɨ Fi                         V′
                                  V′         PP
  in knowing God
                                  V      be mwəlɨa   ku
                                  yiku
                                    be mwəlɨa   ku
```

The PP *be mwəlɨa ku* 'with holding   increase   adj   with holding head   and

daughter of a bar level (V′).

The underlined phrases from (34)-(37) are adjuncts because according to the X-bar rules, an adjunct is a sister and daughter to a bar level. This corresponds to Oro (1992), Huddleston & Pullum (2002) and Obatoye (2011) that NP functions as adjuncts in English and Koro-Ija sentences respectively.

As seen in the analysis, that intermediate constituents exist in Jenjo according to Carnie (2000) and Radford (1988), *vəakã* is an N, *a Jos* is an N′ and *vəakã de a Jos* is the N″ that is the full NP. In (2), the determiner is a post-modifier so it expands N to N′ which violates the determiner rule by Radford (1988) but agrees with Carnie (2000) that gave the options that determiner, complement and adjunct could appear on the left or right of the head. And so the complement of the head noun is sister and daughter to N′. Other proof can be seen in the analysis above.

The possible grammatical elements found in each category of the sentences are: in specifier: nouns, pronouns, adjectives, nominal, genitives, and numerals but the obligatory are nouns, pronouns or nominal and they cannot co-occur. Verbs are copular verbs and main verbs. Complements are nouns, pronouns, PP and nominal. Adjuncts are nouns, nominal and PP. In view of the recommendation by Jacobsen (1993), White (2006) and Chitebeta (2007) X-bar theory applies to Jenjo.

4.4 Chapter Summary

This chapter has described the Jenjo noun phrase structure, analyzed the Jenjo noun phrase using X-bar and identified the syntactic functions of Jenjo NPs in sentences using X-bar. The Jenjo noun phrases and sentences are projected on X-bar tree diagrams. The next chapter discusses the summary of findings, conclusion, recommendations of the study and suggestions for further study.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND

RECOMMENDATIONS

5.0 Introduction

This section presents the summary of findings, conclusion, recommendation of the study and suggestions for further studies. The study is on the Jenjo noun phrase structure in X-bar theory. The study considers the elements that constitute the noun phrase structure of Jenjo and the syntactic functions of Jenjo NP in Jenjo sentences. Both Jenjo noun phrases and sentences are projected on X-bar tree diagrams.

5.1 Summary of findings

The findings are discussed based on the objectives. The first objective was to describe the noun phrase structure of Jenjo. The noun phrases obtained are analyzed and discussed from simple to complex. The simple NPs contain: head alone, this could be nouns or pronouns; determiner and noun; determiner, adjective and noun; numeral and noun. The complex NPs contain: noun and PP; noun and genitive NP; determiner, noun and PP; noun and relative clause; noun, adjective and relative clause; noun, cardinal and ordinal numeral; noun and adjectives; determiner, noun, adjectives and PP and conjoined NP.

The study shows that the noun phrase of Jenjo has both simple, complex and conjoined structures.

The second objective analyzed Jenjo noun phrase structures within X-bar theory. The study shows that a single noun in Jenjo can be a full NP and can be in a maximal projection. The Jenjo complements branch at X′. That is to say, complements are sister to the head noun and daughter to N′. The adjunct rule applied to Jenjo NP. Adjuncts in Jenjo expand N′ to N′ that is they are sister and daughter of a bar level (N′). Jenjo relative clauses are adjuncts. Specifiers can co-occur and are mostly right headed in Jenjo NPs. Specifiers in Jenjo can occur at N″ and N′ level. Specifiers in Jenjo can occur on the right and left because of the distributive determiners.

It is observed that the Jenjo NP can be analyzed using X-bar theory. The rules allow cross-linguistic differences whereby the elements can occur on the left or right of the noun phrase.

The third objective identifies the functions of Jenjo NP in sentences within X-bar. Jenjo NP functions as specifiers, complements and adjuncts in Jenjo sentences.

5.2 Conclusions

In the quest to understand linguistic theory, noun phrase and X-bar, an attempt is made to describe Jenjo NP syntactically. The objectives of the study were attained and the research questions were also answered. In addition, the research assumptions were validated in that there are various elements that constitute the noun phrase structure in Jenjo, the Jenjo noun phrase can be accounted for using X-bar and that the Jenjo noun phrase has syntactic functions within X-bar.

5.3 Recommendations

The study discussed the Jenjo noun phrase structure and its syntactic functions within X-bar, a minority Adamawa-Ubangi language. A similar study can be conducted in other minority languages to prevent their extinction.

In addition, the Nigerian government Education Policy makers should campaign for and sponsor publications in Jenjo. A conscious effort should be made by teachers in Jenjo community to teach pupils in lower primary school in Jenjo as stated in the Education Policy in Nigeria. Pastors should endeavour to use the Jenjo Bible as they give their sermons in churches. Similarly, Jenjo people should make conscious effort to preserve the language by investing in developing the language and passing on the language to their children by speaking it to them in all domains. Publications in Jenjo newsletter (WI-IDZA) should be done in Jenjo only. Lastly, the findings from this work can also be useful to the linguists, teachers, preachers and Jenjo people.

5.4 Suggestions for Further Studies

The above discussion has shown that there is the need for a complete syntactic description of Jenjo. This work is only on the NP of Jenjo. There are other aspects which have not been studied. Linguists need to explore this opportunity by further researching on the morphosyntactic, and phonosyntactic to get the full grammar of the language so that the language can be preserved.

A similar study can be carried out on other Adamawa-Ubangi languages. The researcher suggests that the X-bar linguistic theory can be applied to study other languages within the Adamawa-Ubangi language group.

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APPENDICES

A1: Map showing the language area of Jenjo
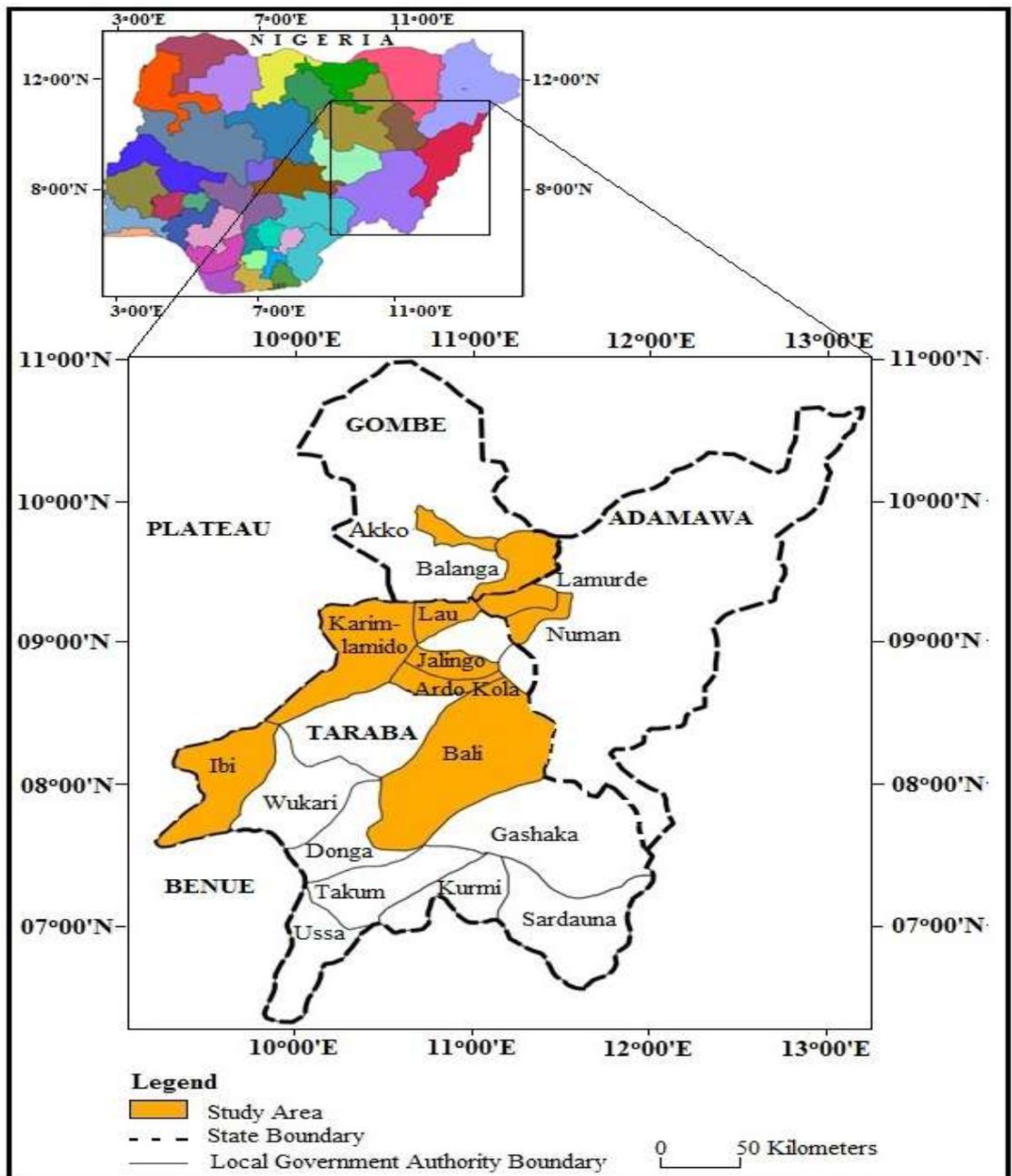
A2: Jenjo Oral Vowels

	Front	Central	Back
Close	i	ɨ	u
Close-Mid	e		o
Mid		ə	
Open-Mid	ɛ		ɔ
Open			

(WI-IDZA, 2013)

A3: Jenjo Nasal Vowels

	Front	Central	Back
Close	ĩ	ɨ̃	ũ
Mid		ə̃	
Open-Mid	ɛ̃		ɔ̃
Open			

(WI-IDZA, 2013)

A4: Jenjo Consonants

JENJO CONSONANTS:

	Bilabial	Labio-dental	Aveolar	Palatal-aveolar	Palatal	Labial-palatal	Velar	Labial-velar	Global
Plosives	p b		t d		c ɟ		k g	k͡p g͡b	
Fricatives		f v	s z	ʃ ʒ	ç				h
Nasals	m		n		ɲ		ŋ		
Lateral Approximant			l		j	ɦ ɥ		ʍ w	
Affricattes			ts dz	t͡ʃ d͡ʒ					

Source: borrowed from (WI-IDZA, 2013)