RESEARCH ARTICLE

THE INFLECTIONAL AFFIXES OF BAMBASI MAO LANGUAGE: MORPHOLOGICAL ANALYSIS OF MAWESE

Taliye Beletew[1] and Negassa Etana[2]
1. Debark University, College of Social Science and Humanities, Department of English Language and Literature.
2. Assosa University, College of Social Science and Humanities, Department of English Language and Literature.

……………………………………………………………………………………………………......

Manuscript Info	Abstract
……………………..	…………………………………………………………………

This study aimed at describing the inflectional affixation processes in Bambasi Mao language, spoken around Bambasi area particularly at Yaku, Sshewara and Kosa in Benishangul Gumuz Regional State, Western Ethiopioa. It had two objectives: identifying inflectional affixes in the language, and analyzing their distribution in the word formation process. The Lexicalist Approach developed by Selkirk (1982) - qualitative data analysis- was used to identify the inflectional affixes and their distribution in the language. The result showed that past verbal inflection is marked by /-á/; present progressive is marked by /-biŠ/; past progressive is marked by /-bitè/ suffix; future tense marker is also marked by the inflectional suffix /-gàmŠ/. Comparative adjectival inflection is marked by /-íte/ suffix; superlative inflection affix is marked by /gija/; plural inflection is marked by/-wole/, and possessive inflection is marked by /-íŋ/ suffix.

……………………………………………………………………………………………………......

Introduction:-

Morphology refers to the structure of words through the smallest elements of morphemes meaning, which includes the structure of base words, prefixes, roots and suffixes. Morphological awareness can be viewed as the ability to infer word meaning and grammatical function through morphemes. Henry (1997) states that "The greatest benefit from instructional time spent on word study can be gained from exploring roots, prefixes, suffixes, and networks of related words."

Furthermore, morphology describes the rules of word formation process in any language. According to (Kemmer, 2011) there are two types of word formation processes. These are major and minor word formation processes.

Major word formation processes are highly productive ways of creating new words, while minor word formation processes are small scale in productivity (Yule 2006, 57). The scholar explains derivation as "the most common word formation process" that enables to create new words by adding morphemes to stems. These morphemes are added to the target stem by affixation, through prefixes and suffixes.

The name 'Mao' has been used to refer to a variety of groups and languages. The people who are usually referred to as 'Mao' include the following: (1) Anfillo, (2) The Hozo and Sezo clans of the Begi area; sometimes called Southern Mao, is classified as Nilo-Saharan (3) The Mao of Bambassi and Didessa, sometimes called Northern Mao, is Omotic (Ahlang 2010). The Northern Mao of Ethiopia people primarily reside in rural villages in western

Corresponding Author:- Taliye Beletew	1474
Address:- Debark University, College of Social Science and Humanities, Department of English Language and Literature.	

Ethiopia, around Bambassi town and in Didessa River Valley. The majority of Northern Mao people are farmers. These Northern Mao people who settled around Bambassi and in Didessa River Valley share common culture and language regardless of religion. According to Fleming (2007) description, 33,683 mother tongue speakers of Mao language were located in Bambasi, Tongo, Hozo and Sezo districts. Moreover, the National census Statistic Agency (2007) indicates that the total population in Babasi district to be 48,694. Among those, 24,720 were men and the remaining 23,974 were women.

Mao Language is a branch of Omotic language family (Ahland 2010), which is spoken in Ethiopia and in Sudan. The language that is spoken in Ethiopia has been categorized into Bambasi Mao, Diddesa Mao, Tongo Mao, Ganza Mao, Hozo and Sezo Mao. The classification of this language dialect is concerned with the settlement area of the language speakers (Bender 1971). The focus of this study was on the Bambasi Mao language, which is spoken throuhout Bambasi district particularly at Mus'a-Yaku, Mus'a-Shewara and Mus'a-Kosa villiages. Bambasi Mao language has different names. These names are spelled out as: Bambashi Mao, Siggoyo Mao, Amam Mao, Fadiro Mao, as well as Kere Mao.

Revious Studies:
The Mao language family in Omotic has the weakest documentation. Only few works have been done on the description of Mao language. For instance, Grottanelli (1940) presents history of Mao people with minimal linguistic information in the form of word lists.

Ahland (2010) explains that Mao language is classified into Northern and Southern Mao. Fleming (1988) reconstructs the Proto-Mao phonology nearly similar to Ahland. The Mao language of Bambassi and Didessa, sometimes called Northern Mao is Omotic, whereas the Mao language of Begi, sometimes called Southern Mao is classified as Nilo-Saharan. In his (2012:85) justification the language is tonal. He also described the phonetic inventory of consonants and vowels as it has been listed below:

Table1:- Consonants from Ahland (2012:54).

	Labial		Alveolar		Palatal		Velar		Glottal
Plosive	p	b	t	d			k	g	
Ejective	p'		t'				k'		
Fricative	f		s	z	Š or ʃ				h
Ejective			s'						
Affricative					Č or tʃ	dʒ or ǰ			
Nasal		m	n				ŋ		
Lateral			l						
tap			r						
semivowel		w	j						

Table 2:- Vowels from Ahland (2012).

	Front		central	back	
High	i	i:		u	u:
Mid	e	e:	ä (ə)		
Low			a	o	o:

As it can be seen in the above table (1) and (2), Ahland (2012) has modified twenty four consonants from Bender (2003) on the base of their place of articulation and manner of articulation and six vowels based on the occurrence of tongue position when they are uttered.

Furthermore, Siebert (1994) has also analyzed the Northern Mao speech including Bambasi Mao speakers referring to their own language with the autonym /mawésə ats' tose/ which is literally translated as 'Mao person-talk'. However, the aforementioned linguists did not raise any idea about the morphological feature of the language (i.e. the role of derivational affix morphemes, inflectional affix morphemes, and the function of affixes such as prefixes and suffixes that can be added on root morphemes. Therefore, the focus of the present investigation is to describe the morphological feature of the language.

One part of the function of grammar in linguistics study is the justification of word part categories in a language. Many languages have different componental parts of a word such as prefixes, roots, base words, and suffixes. Speakers may know the lexical and functional category of words in their language orally, but they may not know the technical terms of the internal constituents of word parts. Similarly, in Bambasi Mao language, words have different constituent parts and new words are formed by affixation. However, their internal constituents haven't been fully described so far.

Negassa and Taliye (2018) studied derivational affixes in the language using the same approach described in this article. However, the description cannot be complete morphologically excluding inflectional affixes. Therefore, this article gives structural analysis of morphological (lexical and functional category) in Bambasi Mao language as a complement to the authors' previous work. This article distinguishes the feature of inflectional affix morphemes as well as the distribution or function of prefixes and suffixes in content words of the language. In this article, two basic questions were raised: 1. What inflectional affixes are used in the language? 2. How prefixes and suffixes are distributed through content words? Thus, the inflectional affix features (i.e. verbal inflections, adjectival inflections, adverbial inflections and nominal inflections), and their distributions were discussed.

Theoretical Framework:
Approaches:
In Generative Grammar, various approaches were outlined to the study of word structure. Among these approaches, the Transformationalist and the Lexicalist Approaches are very influential. After Chomsky's 'Remarks on Nominalization' in (1970), it was argued that much of derivational morphology was semantically irregular and should not be handled by syntactic rules which are regular. Out of this argument the Lexicalist Approach were developed. The Lexicalist Approach, contrary to the Transformationalist Approach, advocates that syntax does not have access to the internal structure of words. As pointed out above, Chomsky (1970), the pioneer of the Lexicalist Approach, strongly argues that words with derivational features cannot be derived syntactically from the deep structures as they should be part of it (Selkirk, 1982:1).

Based on the assumption that the Lexicalists have on derivational and inflectional morphology, the Lexicalist Approach was divided into two: Weak and Strong Lexicalist (Selkirk 1982:1) and (Aronoff 1976:9). The Weak Lexicalist Approach assumes that derivation and inflection takes place in the lexicon. On the other hand, the strong Lexicalist Approach assumes that inflectional and derivational morphology are in the lexicon; and excludes all morphological issues out of syntax (Aronoff 1976:9). As a guide for this study, the researchers have used the model of Selkirk (1982).

In the description of Bambasi Mao language, the researchers followed the Weak Lexicalist Approach for the Weak Lexicalist Approach stipulates words with derivational morphology and inflectional morphology are not formed by syntactic transformation.

Feature of Morphology:
In linguistics Morphology refers to the mental system involved in word formation or to the branch of linguistics that deals with words, their internal structure, and how they are formed.

Selkirk (1982) explicitly argues that morphology is the study of the syntax of words, while what traditionally called syntax is the study of the structure of sentences. In the study of both 'word syntax' and 'sentence syntax' phrase structure rules are used to generate permissible strings and to assign structural descriptions. Rules of word syntax specify the combinations of morphemes that words are made up of in the same way that rules of sentence syntax specify concatenations of words which result in well-formed sentences. Therefore, syntax as the set of rules and principles governs how words are put together to form phrases. Under such phenomena, the sub domain of linguistic features that deals with word properties particularly word structure is called morphology (O'Grady, 1987).

Morphology in linguistics has the function to do with how words are shaped and how the shapes of words systematically adjust in order to accomplish communicative tasks (Robert, 2001). Morphology is also considered as the study of how meaningful units are combined to shape words (Matthews, 1991). Koopman (1991: 2) has analyzed some kinds of morphological properties, which are basically relevant to syntax. These morphological properties are:
1. Words come in categories
2. Words can be made up of smaller meaningful units (morphemes)

3.   Morphemes are combined within regular rules.

These morphological features are described in detail as follows:
Word categories:
In traditional grammar, words are assigned into grammatical categories on the base of their morphological and semantic properties. According to Radford (2009) there are two different types of word 'categories': content words (which have substantive lexical words) and on the other hand function words (which essentially serve to make grammatical properties).

Corresponding to these two different types of content and function words, nouns, verbs, and adjectives are content or lexical words; on the other hand conjunctions, prepositions, adverbs, determiners, articles, pronouns, auxiliaries, negation and numerals are functional categories, whose members are functional words (Robert, 2001). According to Pavey (2010) expression verbs commonly take inflectional affixes to show agreement with the person, number and gender, (the participants) in the event. Nouns can also carry inflectional affixes, which make whether the referent depicted by the noun is doing the action undergoing the actor or performing some other roles such as instrument.

The morphological criteria for categorizing words are concerned on their inflectional and derivational properties. Inflectional properties relate to different forms of the same word, while derivational properties relate to the processes by which a word can be used to form different kind of words by the addition of an affix of some kind (Pavey, 2010). However, the morphological (form) based criterion in many cases is not sufficient condition for determining the type of lexical categories. Kim (2007: 13) expresses that "the most reliable criterion in judging the lexical category is based on its syntactic function or distributional possibilities."

On the other hand Carnie (2006) suggests that words can be classified into different lexical categories according to three criteria: morphological form, syntactic function, and semantic representation.

Syntactic distribution refers to what other words appear near the word. Nouns can appear after adjectives (i.e. the big house); nous can also follow prepositions such as (into school), and nouns can appear as the subject of the sentence. Robert (2001) analyzes that "lexical categories have notional definitions; i.e. they are characterized in terms of their semantic content." He illustrates that noun is defined as the name of person, place or things; while verb is defined as the indication of an action and adjective is defined as a word expressing a property or attribute of noun.

Morphemes:
Morphemes are the minimal meaningful units of grammatical or lexical meaning in a sentence (Robert, 2001). Minimal does not necessarily mean small, but "it means that the unit cannot be broken down further into meaningful pieces" (Pavey, 2010). Morphemes give grammatical or lexical information where they are inserted in the appropriate position.

Morphemes are the smallest and lowest meaningful units of the five fundamental units of grammar (i.e. morpheme, word, phrase, clause and sentence). A morpheme with the main lexical meaning is called Root (Koopman, 1991), and "roots have a lexical meaning typically nouns, verbs and adjectives by themselves in a dictionary are expected to have lexical meanings." (Pavey, 2010: 11). However, some other morphemes cannot occur on their own stand, they have to be attached or affixed to another morpheme. For this reason they are called affixes.

Morphological distribution:
Morphemes that are added to the root word have different functions or purposes. Carnie (2006) expresses that "morphological distribution refers to the kind of affixes (i.e. prefixes, infixes and suffixes)."Affixes that make words out of other words are derivational morphemes.

For instance, the word "distraction" has contained the derivational suffix "-ion" which changes the verb distract into noun "distraction". Such kind of distribution is morphological distribution.

Derivational affixes change the lexical category of the stem, while inflectional morphemes do not change its category, but attach to certain categories in order to show a grammatical form (Radford, 2009). Morphemes that cannot stand on their own are bound morphemes.

According to Pavey's (2010) explanation affixes that cannot stand on their own are bound morphemes. Affixes are also examples of grammatical morphemes rather than naming something or referring an action, but they grammatically provide information about features like the time an event occurred in past (-ed)or number indicator inflection(-s). Such inflectional operations include person, number, gender, tense and aspect. Panye (1997:26) has analyzed the characteristics of inflectional operations as follows:

Inflections are grammatically required in certain environment; they tend to be regular and productive at least in comparison to derivational operations. They tend to occur in paradigms. (i.e. in the sets of forms one form must be selected in certain environments).

According to Aronoff (1976:2), inflections are purely grammatical markers, such as tense, aspect, person, number, gender, case and etc. Inflectional affixes simply produce word-forms of a single morpheme, while, derivational affixes conversely produce new lexemes. In most cases, in natural languages as Bauer (1983:26) puts, "where both derivational and inflectional elements are found together, the derivational element is more intimately connected with the root".

Generally, inflectional operations create fully formed words that can be integrated into discourse, whereas derivational operations create stems that are not necessarily fully grounded and which may still require inflectional operations before they can be integrated into discourse (Panye, 1997). In this article, inflectional affixes: verbal inflections, adjectival inflections, adverbal inflections, nominal inflections, and their distributions in Bambasi Mao language were described as they were used by native speakers.

Methodology:-
The methodology employed in this study is informant method, where native speakers of Bambasi Mao were interviewed. The researchers prepared appropriate linguistic questionnaires: inflectional paradigms of words, phrases, clauses and sentences that help us to collect qualitative data. The lingua franca was Amharic which both the researchers and all the informants speak and understand. The informants were asked to utter each linguistic unit through elicitation and in the form of texts from continuous speech. The researchers record on the informants' speech utterance and then transcribed them phonemically using the International Phonetic Alphabet (IPA symbols) and glossed them in English.

Basically there two kinds of sources to collect data: primary sources and secondary source. In this study, the researchers collected data essentially from primary sources. It has been mentioned that sources indicate the total population who speak the language in Babasi district are 48,694. Since it is difficult to ask and collect data from the whole community, researchers used purposive sampling technique and select four bi/multilingual Bambasi Mao speakers as informant from each of three areas of the district. The reason that such bi/multilingual informants are selected from different places is to collect reliable data and to make cross checking activity on the collected data through primary sources. At the same time the total number of respondents is limited to 12 to avoid dialectical factors.

The data collecting instrument for this study is interview. In the interview, elicitation technique has been applied. Researchers have prepared questions in Amharic language in order to make clear communication with informants. Even though there are two basic elicitation techniques: scheduled elicitation and analytical elicitation techniques; the second technique was employed for this research data collection, because it enables the researchers to get considerable data from the informants by conducting open-ended questions. Therefore, the researchers used only analytical elicitation so as to get original, genuine and detail data from the selected informants in a face to face situation.

The collected data from the informants by elicitation technique using Amharic language was translated into English. Then, the translated words, phrases, and sentences are organized. Finally, the transcribed inflectional morphological aspects of the language were analyzed within examples based on the selected theoretical framework.

Results:-
In Bambasi Mao language, nouns can be marked by possessive and plural inflectional markers. The vast majority of nouns in the language can take plural number marking and thus may be considered as 'count' nouns. There are also

a few mass nouns like /kiːme/ 'money',/Šáwè/ 'sand', /haːs'è/ 'water' and /maːre/ 'bush'; these don't take number marking in their prototypical usages.

According to Ahiland (2012:428) explanation the inflectional system of the verb involves the following grammatical categories: person, number, gender, aspect and mood. In this article tense or verbal inflectional affixes (past marker inflectional suffixes, progressive marker suffixes, Present perfect inflectional suffixes, past perfect inflectional suffixes and future marker inflectional suffixes); adjectival inflectional affixes (comparative inflectional suffixes and superlative inflectional Prefixes) as well as noun inflectional affixes (possessive inflectional suffixes and plural inflectional suffixes) are identified and descried.

Past Marker Verbal Inflectional Suffixes:
According to Comire (1985: 41) past tense is an event or action which completely occurs at time prior to the present moment. Such occurrence can be morphologically represented by different tense markers in different languages. Therefore, in such description past tense marker in Bambasi Mao has been illustrated in morphological representation. The morphological representation of past marker is symbolized by the suffix /-á/ which is added to the selected main verb of simple past structure. Consider the following examples.

1.   ha-tí-jéːs'-á AFF-1SG-run-SUFF "I ran." (In the past).
2.   kwalla ha-tí-jéːs'-á yesterday AFF-1SG-run-SUFF "I ran yesterday"

The above sentential examples are clarified with additional data in table (3) as follows:

Table 3:- Past Inflectional Suffixes Added To Root Verbs.

No	Mao root Verbs	gloss	Inflected Adverbs	gloss	Past inflectional Suffix	
1	jéːs'	'run'	jéːs'-á	'ran'	-á	
2	s'eːl	'finish'	s'e:l-á	'finished'	-á	
3	Hadem	'work'	hadem-á	'worked'	-á	
4	goːm	'plan'	go:m-á	'planed'	-á	
5	Piy	'kill'	piy-á	'killed'	-á	
6	Winz	'write'	winz-á	'wrote'	-á	

Even though the past marker is symbolized by the suffix /-á/, in Bambasi Mao present tense is not morphologically determined by any affix in the structural constituent of main verbs. Therefore, the discussion here is proceeded towards progress and future marker inflectional suffix structural features.

Progressive marker Verbal Inflectional suffixes:
Progressive aspect is the subtype of imperfective aspect which refers specifically to an action or event that is in progress at the moment of speaking.

In Bambasi Mao present progressive is represented by /-bíŠ/ suffix which has the functional expression of present action; while past progressive is represented by /-bitè/ suffix as structured in the following examples.
1.   ha-tí-mí biŠ –jà now AFF-1SG-eat PGS-be 'I am eating now'
2.   ha-tí-mí bitè -jà AFF-1SG-eat-PGS-be 'I was eating'

Present progressive is indicated morphologically by adding the suffix /-bíŠ/ to main verbs as illustrated below.

Table 4:- Present progressive inflectional Suffixes added to root Verbs.

No	Mao root Verbs	gloss	Inflected Verbs	gloss	Present progressive inflectional Suffix	
1	k'op	'cut'	K'o-bíŠ	'cutting'	-bíŠ	
2	P'et	'help'	P'et-bíŠ	'helping'	-bíŠ	
3	jeːs'	'run'	je;s'-bíŠ	'running'	-bíŠ	
4	Tew	'arrange'	tew-bíŠ	'arranging'	-bíŠ	
5	koŠ	'play'	koŠ-bíŠ	'playing'	-bíŠ	
6	Táj	'give'	táj-bíŠ	'giving'	-bíŠ	

Future Marker Verbal Inflectional Suffixes:
The future tense indicates an action carried out at a time subsequent to the moment of speaking. The future tense marking elements are correlated with modality. The fact that statements made upon the speakers belief, predication and often used in a temporal function associated with modality (Comrie 1985). Panye (1997) states that future tense markers often derive historically from free verbs such as "give", "come" or "go". In Bambasi Mao future tense marker is represented by the morphological suffix /-gàmŠ/. It occurs preceded by the subject markers and hosted to the main verbs as illustrated in the following examples.

    hás'à   ha-kí-gàmŠ-tí-bíŠ-á
            tomorrow AFF-come-FUT-1SG-AUX-DECL
       'I will come tomorrow'
    tí-Š   pònd-kòt'-gàmŠ-ít-ná
          1SG-SBJ arrive-PF-FUT-1SG-AUX
       'I will have arrived before he comes'

Regarding to verbal inflectional suffix, the above sentential examples are clarified with additional data in table (5) as follows:

Table 5:- Future marker Verbal Inflectional suffixes added to main verbs.

No	Mao root Verbs	gloss	Future Inflected Verbs	gloss	Future inflectional Suffix	
1	Kíj	'come'	kíj-gàmŠ	'will come'	-gàmŠ	
2	Míj	'eat'	míj-gàmŠ	'will eat'	-gàmŠ	
3	koŠ	'play'	koŠ-gàmŠ	'will play'	-gàmŠ	
4	Wol	'search'	wol-gàmŠ	'will search'	-gàmŠ	
5	Pas	'leave'	pas-gàmŠ	'will leave'	-gàmŠ	
6	ta:j	'give'	ta:j-gàmŠ	'will give'	-gàmŠ	

Adjectival Inflectional Affixes:
Adjective indicates the properties of nouns including their amount, size, quality and color. Tallerman (2011: 56) states that adjectives have two basic functions "attributive and predicative functions." Attributive adjectives directly modify a noun and normally have fixed position. In Bambasi Mao adjectives have two common inflectional affixes: comparative and superlative affixes. These are added to the head adjectives. Here are some possible examples of comparative and superlative adjectival inflections.

Comparative Adjectival Inflectional Suffixes:
    (8)   **a.**   kèt'-Š   ke:m-ite -ta Šəribn -á
                house-SBJ big -SUFF than-tent -DECL
                'House is bigger than tent.
          b.   hambele-Š qes'-íte -ta dule-á
                camel-SBJ long -SUFF -than -hyena DECL
                'Camel is longer than hyena'

The above sentential examples are constructed from the following tabulated data.

Table 6:- Comparative Inflectional suffixes added to adjectives.

No	Mao Adjectives	gloss	Inflected Adjectives	gloss	Comparative inflectional Suffix
1	ke:m-e	'big'	ke:m-íte	'bigger'	-íte
2	qes'-e	'long'	qes'-íte	'longer'	-íte
3	kaun-e	'short'	kaun-íte	'shorter'	-íte
4	zengl-e	'thin'	zengl-íte	'thinner'	-íte
5	Šengl-e	'simple'	Šengl-íte	'simpler'	-íte
6	Šek-e	'near'	Šek-íte	'nearer'	-íte

The above data show that comparative adjectival inflectional suffix /-íte/ is added to different head adjectives to express two comparable things.

Superlative Inflectional Prefixes:
In grammar, the superlative form of an adjective is the form that indicates something has more of a quality than anything else in a group. In Bambasi Mao adjective superlative inflection is symbolized by /-gija/ prefix which can be added before the inflected adjectives as described in the following examples:

(9)   a.   àŠja-Š   adwliti gija- ke:mite -k'es'
             Asia-SBJ world PREF big   continent
             'Asia is the biggest continent in the world'
        b.   najl-Š itjop'jat-i gija- qes'íte -wàmé
             Nile-SBJ Ethiopia from-PREF long river
             'Nile is the longest river from Ethiopia'

Table 7:- Superlative Inflectional prefixes added to adjectives.

No	Mao Adjectives	gloss	Inflected Adjectives	gloss	Superlative inflectional Prefix
1	ke:m-e	'big'	gija-ke:míte	'biggest'	gija-
2	qes'-e	'long'	gija-qes'íte	'longest'	gija-
3	kaun-e	'short'	gija-kauníte	'shortest'	gija-
4	zengl-e	'thin'	gija-zenglíte	'thinnest'	gija-
5	Šengl-e	'simple'	gija-Šenglíte	'simplest'	gija-
6	Šek-e	'near'	gija-Šekíte	'nearest'	gija-

From the above data, it can be noticed that superlative inflection prefix /gija-/ is affixed before the inflected adjectives, therefore, this superlative inflection is called prefix.

Noun inflectional Affixes (Suffixes):
In Bambasi Mao language, nouns are inflected for plurality and possessive formation by adding inflectional suffix markers as separately described below.

Possessive Inflectional Suffixes:
In English language possessive marker is expressed by various kinds of inflectional suffixes, such as /-'s/, /-s'/, preposition /of/ or by possession verb 'has'/ 'have' and by different possessive pronouns like (my, his, her, your and their) these all must be agree with an assigned subject.   A noun may inflect as the dependent member of an agreement relation with a possessor noun phrase (Andrew, 2001:23). In Bambasi Mao, possession is expressed by either possessive verb /kòt'/ 'have' which is always used with the transitive construction or it can be fully inflected by morphological suffix /-íŋ/ as illustrated in table (8) below:

Table 8:- Possessive Inflections added to base Nouns.

No	Mao base Nouns	gloss	Inflected nouns	gloss	inflectional Suffix
1	e:frík-e	'Africa'	e:frík-íŋ íŠm-e	'horn of Africa'	-íŋ
2	se:r e	'law'	se:r-íŋ kèm-e	'rules of law'	-íŋ
3	e:nt'wol-e	'men'	e:nt'wol-íŋ kep-e	'men's hat'	-íŋ
4	muns'ol-e	'women'	muns'ol-íŋ kejt-e	'women's room'	-íŋ
5	P'íŠ-e	'boy'	P'íŠ-íŋ kep-e	'boy's cap'	-íŋ
6	Palt'-e	'girl'	Palt'-íŋ	'girl's room'	-íŋ

The above data depicts that possessive noun inflection is expressed by /-íŋ/ suffix which is added to base nouns.

Plural Inflectional Suffixes:
In the plural formation system of Bambasi Mao, there is a clear distinction of singular and plural forms, but only the plural form is marked morphologically. As shown in the table below suffixing the morpheme /-wole/ with base noun forms to form plural nouns.

Table 9:- Plural Noun Inflections added to base Nouns.

No	Mao base Nouns	gloss	Inflected nouns	Gloss	Noun inflectional Suffix	

1	ket'-e	'house'	ket'-wole	'houses'	-wole
2	P'íŠ-e	'boy'	P'íŠ-wole	'boys'	-wole
3	hím-e	'cow'	hím-wole	'cows'	-wole
4	ans-e	'star'	ans-wole	'stars'	-wole
5	se:r –e	'rule'	se:r-wole	'rules'	-wole
6	èsé-e	'man'	ès-wole	'men'	-wole
7	jeríp'eŠ-e	'child'	jeríp'eŠ-wole	'children'	-wole
8	imepol-e	'ox'	imepol-wole	'oxen'	-wole
9	kítab-e	'book'	kítab-wole	'books'	-wole
10	palt'-e	'girl'	palt'-wole	'girls'	-wole

As it can be seen in the table (9) above, terminal vowels of the singular noun forms are deleted when the plural marker is suffixed to them.

Gender marker Inflectional Suffixes:
Gender system is distinguished as masculine and feminine. In most cases, gender distinction is a characteristic of animate nouns. In Bambasi Mao, the feminine gender can also be used for the expression of activeness or smallness, irrespective of their biological sex. Even though these kinds of nouns are not morphologically marked, they semantically express feminine gender. Consider the following examples of feminine gender expression with empty /-Ø / suffix:

Table 10:- Feminine Lexical Gender expression.

No.	Mao Feminine Nouns	gloss	Inflectional Suffix
1	hagníŠ-e	'bee'	/-Ø/
2	Šəwen-e	'spider'	/-Ø/
3	Šəl-e	'flea'	/-Ø/
4	èns-e	'moon'	/-Ø/
5	həutok-e	'sun'	/-Ø/
6	muns'-e	'woman'	/-Ø/
7	wəŠíl-e	'rabbit'	/-Ø/

Furthermore, gender in Mao is expressed by different suppletive terms for masculine and feminine nouns to denote the gender of several animate nouns. In the majority of cases, kinship terms are lexically expressed as it is mentioned in table (11) below:

Table 11: Suppletive Lexical Gender expression:

No	Mao Masculine nouns	gloss	Suffix	Mao Feminine nouns	Gloss	Suffix
1	kembab-e	'grandfather'	/-Ø/	ow-e	'grandmother'	/-Ø/
2	nít'-e	'father's brother'	/-Ø/	àp-e	'mother's brother'	/-Ø/
3	ámád –e	'father-in-law'	/-Ø/	e:p-e	'mother-in-law'	/-Ø/
4	wís'k –e	'father's sister'	/-Ø/	u:Šnok-e	'mother's sister'	/-Ø/
5	ne:k –e	'father'	/-Ø/	no:k-e	'mother'	/-Ø/
6	o:b-e	'brother'	/-Ø/	ád-e	'sister'	/-Ø/

In addition to the above kinship terms, there is also other supplementary gender expression lexically as shown in table (12).

Table 12:- supplementary lexical gender expression:

No.	Mao Masculine nouns	gloss	Suffix	Mao Feminine nouns	Gloss	Suffix
1	P'íŠ-e	'boy'	/-Ø/	pa:lt'-e	'girl'	/-Ø/
2	e:nt'-e	man	/-Ø/	mu:ns'-e	'woman'	/-Ø/
3	wa:kpol-e	'stork, cock'	/-Ø/	wa:knok-e	'hen'	/-Ø/
4	hímpolmal-e	'bull'	/-Ø/	hímwo:lík-e	'heifer'	/-Ø/

5	ímkəŠ-e	'bullock'	/-Ø/	ímnok-e	'cow'	/-Ø/
6	Šek'pol-e	'billy-goat'	/-Ø/	Šek'nok-e	'nanny-goat'	/-Ø/
7	bagípol-e	'ram'	/-Ø/	Bagínok-e	'ewe'	/-Ø/

Personal Marker Inflectional Suffixes:
Lieber (2009:89) defines that verbs in different languages are marked for the inflectional category of person: that is, verbs exhibit different endings depending on whether the subject of the sentence is the speaker (first person), the hearer (second person), or someone else (third person).

In Bamnasi Mao personal pronouns are identified in their citation forms as well as in their subject and object case inflectional forms.

In the citation forms, each pronoun ends with the terminal vowel [e], or [je] if immediately following [i] (i.e. 1SG and 2SG forms). The subject and object case markers follow the pronoun stems. The subject case marker is /-iŠ/ and the object case marker is /-nà/. Alternative case forms may be used on the 1st, 2nd and 3rd plural pronouns: /-té/ for subject and /-tá/ for object. Shorter forms of the 1PL and 2PL pronoun forms are used when the /-té/ and /-tá/ case markers are present (/hambèl-/ > /ham-/ 1PL and /hàwèl-/ > /hàw-/ 2PL).

Subject case can also be marked with /-té/ on the 3SG pronoun; when the /-té/ suffix is used, the pronoun is shortened to /í-/ from /iŠ-/.

Table 13:- Personal pronouns in citation and case forms.

Gloss	Pronoun in Citation form with Terminal vowel	Pronoun with Subject Case	Pronoun with Object Case	Pronoun with Possession
1SG	tí-jé	tí-Š	tí-ná	tí-íŋ
1DU	han-é	han-íŠ	án-ná	han-íŋ
1PL	hamb-èl-è	hamb-èl-ìŠ ham-té	hamb-èl-là ham-tá	hamb-íŋ
2SG	hì-jè	hì-Š	hì-nà	hí-íŋ
2DU	háw-é	háw-íŠ	háw-ná	háw-íŋ
2PL	hàw-èl-è	hàw-èl-ìŠ hàw-té	hàw-èl-là hàw-tá	hàw-íŋ
3SG	íŠ-è	íŠ-ìŠí-té	íŠ-nà	íŠ-íŋ
3DU	íŠ-kuw-e	íŠ-kuw-íŠ	íŠ-kuw-nà	íŠ-íŋ
3PL	íŠ-kol-è	íŠ-kol-ìŠ íŠ-kol-té	íŠ-kol-là íŠ-kol-tá	íŠ-kol-íŋ

As it is shown in the above data possessive pronouns and object case pronouns are derived from subject personal pronouns by adding different inflectional suffixes.

Each of the plural pronouns includes either the /-el/ PL suffix (on 1PL and 2PL) or /-kol/ PL suffix (on 3PL). The /-el/ PL suffix is not found elsewhere, but the suffix /-kol/ PL marker appears to be related to the morpheme /-wole/ PL suffix found on nominals. The only nominals which take the full /-kol/ suffix with the /k/ are the 3PL pronoun and kinship terms, such as 'father' / ne:k-e / > / ne:k-kol-è/ 'fathers'

The 1st and 2nd person dual and plural pronouns begin with a sequence /ha-/ of various different tones. The 3rd person dual pronoun has been constructed from a demonstrative /íŠ-é/with the dual marker /-kuw/.

The distribution of Affixes (prefixes and suffixes):
As it is mentioned in the statement part of this study, morphology refers to the structure of words through the smallest elements of morphemes meaning, which includes the structure of base words, prefixes, roots and suffixes. The minimal meaningful units that are used to form words are called morphemes. Some of the morphemes that can stand alone as words are called free morphemes. The morphemes that cannot stand alone are called bound morphemes.

Bound morphemes come in different varieties. Those are prefixes and suffixes; the former are bound morphemes that come before the base of the word, and the latter bound morphemes that come after the base. Together, prefixes and suffixes can be grouped together as affixes.

New lexemes that are formed with prefixes and suffixes on a base are often referred to as derived words, and the process by which they are formed as derivation. Lieber (2009:35) expresses that prefixes and suffixes usually have special requirements for the sorts of bases they can attach to. Some of these requirements concern the phonology (sounds) of their bases, and others concern the semantics (meaning) of their bases. In Bambasi Mao Language the distribution of inflectional affixes (i.e. numerical prefixes, temporal prefixes, negative marker suffixes and positive marker suffixes) are separately distinguished and described with different examples as follows:

Numerical Prefixes:
Prefixes are one or more syllables that are added at the beginning of the base word. Some prefixes have the capacity to change word classes, while some others have the capacity to change only meaning and form of the base word.

Table 14:- Numerical prefixes added to base words.

No.	Mao base words	gloss	Numerical form	gloss	Numerical prefixes
1	kúal-e	'syllable'	íŠkí-kúal-e	'mono-syllable'	íŠkí-
2	ke:t'Š-e	'form'	íŠkí- ke:t'Š-e	'uni-form'	íŠkí-
3	khal-e	'lingual'	numbu-khal-e	'bi-lingual'	numbu-
4	s'é:l-e	'lateral'	numbu-s'é:l-e	'bi-lateral'	numbu-
5	ket'íŠ-e	'angle'	te:z- ket'íŠ-e	'tri-angle'	te:z-
6	hadem-e	'function'	gejesí- hadem-e	'multi-function'	gejesí-

Temporal prefixes:
Temporal prefixes are time related expressing which are limited in number and they have the semantic notions like 'before', 'now' and 'after'. Consider the following examples:

Table 27:- Temporal prefixes added to base words.

No.	Mao base words	gloss	Temporal formed	gloss	Temporal prefixes
1	s'og-e	'exam'	P'at'wiŠin- s'og-e	're-exam'	P'at'wiŠin-
2	dilid-e	'graduate'	tiwiŠin-dilid-e	'post-graduate'	tiwiŠin-
3	à:lid-e	'knowledge'	jeníŠ-à:lid-e	'pre-knowledge'	jeníŠ-

As it is shown in table (26) and (27) different numerical prefixes and different temporal prefixes are added to different base words. These different prefixes can change the form and meaning of the base words without word class changing.

Discussions:-
Inflections differ from derivations in that derivations are lexical matter in which choices are independent of the grammatical environment. Inflection refers to word formation that does not change category and does not create new lexemes, but rather changes the form of lexemes so that they fit into different grammatical contexts (Lieber, 2009). Inflectional affixes are highly productive. They are formatives and always added on countable nouns to form plurals. In Bambasi Mao nouns can be marked by possessive and plural inflectional markers. The vast majority of nouns in Mao language can take plural number marking and thus may be considered as 'count' nouns. There are also a few mass nouns like /ki:me/ 'money',/Šáwè/ 'sand', /ha:s'è/ 'water' and /ma:re/ 'bush'; these don't take number marking in their prototypical usages.

Verbal Inflectional Affixes:
According to Ahiland (2012:428) explanation the inflectional system of the verb involves the following grammatical categories: person, number, gender, aspect and mood. In this study tense or verbal inflectional affixes (past marker inflectional suffixes, progressive marker suffixes, Present perfect inflectional suffixes, past perfect inflectional suffixes and future marker inflectional suffixes); adjectival inflectional affixes (comparative inflectional suffixes and

superlative inflectional Prefixes) as well as noun inflectional affixes (possessive inflectional suffixes and plural inflectional suffixes) were identified and descried. Past marker inflection: past marker /-á/ 'ed' is added to main verbs in simple past structure. In Bambasi Mao present tense is not morphologically represented. Therefore, present tense is /Ø/ (zero morph). Present progressive or gerund is marked by /-biŠ/ '-ing', whereas past progressive is represented by /-bitè/ inflectional suffix. According to Comire (1985: 41) past tense is an event or action which completely occurs at time prior to the present moment. Such occurrence can be morphologically represented by different tense markers in different languages. Even though the past marker is symbolized by the suffix /-á/ in Bambasi Mao, the present tense is not morphologically determined by any affix in the structural constituent of main verbs.

The future tense marking elements are correlated with modality. The fact that statements made upon the speakers belief, predication and often used in a temporal function associated with modality (Comrie 1985). Panye (1997) states that future tense markers often derive historically from free verbs such as "give", "come" or "go". In Bambasi Mao future tense marker is represented by the morphological suffix /-gàmŠ/. It occurs preceded by the subject markers and hosted to the main verbs as illustrated in the following examples.

a.   hás'à   ha-kí-gàmŠ-tí-bíŠ-á
            tomorrow AFF-come-FUT-1SG-AUX-DECL
        'I will come tomorrow'
b.   tí-Š   pònd-kòt'-gàmŠ-ít-ná
            1SG-SBJ arrive-PF-FUT-1SG-AUX
        'I will have arrived before he comes'

Adjectival Inflectional Affixes:
Adjective indicates the properties of nouns including their amount, size, quality and color. Tallerman (2011: 56) states that adjectives have two basic functions "attributive and predicative functions." Attributive adjectives directly modify a noun and normally have fixed position. In Bambasi Mao language, two common inflectional affixes: comparative /-íte/ '-er' and superlative /gija-/ '-est' affixes are identified.

Noun Inflectional Affixes :
Two noun inflectional affixes (possessive inflectional suffix and plural inflectional suffix) are marked by /-íŋ/-'s' genitive and /-wole/ '-s' plural morphological affixes respectively.

All inflectional affixes are class maintaining suffixes. When they added to base words, they do not bring word category change. They are mainly suffixes.
 Gender marker Affix

In Bambasi Mao, gender is not morphologically marked. Even though gender related nouns are not morphologically marked, they semantically expressed in suppletive terms, kinship terms and supplementary gender expression. The only nominals which take the full /-kol/ suffix with the /k/ are the 3PL pronoun and kinship terms, such as 'father' / ne:k-e / > / ne:k-kol-è/ 'fathers'. The 1st and 2nd person dual and plural pronouns begin with a sequence /ha-/ of various different tones. The 3rd person dual pronoun has been constructed from a demonstrative /íŠ-é/with the dual marker /-kuw/.

Personal Pronouns Affix:
Nine personal pronouns are distinguished within their citation form suffix /-e/, object case marker suffix /-ná /and possessive case marker suffix /-íŋ/. The pronouns have dual gender function. In Bambasi Mao, possession is expressed by either possessive verb /kòt'/ 'have' which is always used with the transitive construction or it can be fully inflected by morphological suffix /-íŋ/.

Gender system is distinguished as masculine and feminine. In most cases, gender distinction is a characteristic of animate nouns. In Bambasi Mao, the feminine gender can also be used for the expression of activeness or smallness, irrespective of their biological sex. Even though these kinds of nouns are not morphologically marked, they semantically express feminine gender.

(Distribution of Affixes (prefixes and suffixes):
Lieber (2009:35) expresses that prefixes and suffixes usually have special requirements for the sorts of bases they can attach to. Some of these requirements concern the phonology (sounds) of their bases, and others concern the semantics (meaning) of their bases. In Bambasi Mao Language the distribution of derivational and inflectional affixes (i.e. numerical prefixes, temporal prefixes, negative marker suffixes and positive marker suffixes) are separately distinguished and described with different examples.

Prefixes:
Reflexives are verbal stems that refer to actions performed to one's own benefit, or simply, the subject and the object relate to the same entity. In Mao language reflexive affix is symbolized by the morpheme /-ink/ and often suffixed on verb roots to form reflexive verbals. Numerical affixes, such as /íŠkí-/ 'mono-', /numbu-/ 'bi-', /te:z-/ 'tri-' and /gejesí-/ 'multi-'; temporal affixes like, /tiwiŠin-/ 'post-' and /jeníŠ-/ 'pre-' as well as superlative affix /gija-/ 'est' are added at the beginning of lexical words. Some prefixes have the capacity to change word classes, while some others have the capacity to change only meaning and form of the base word. Different numerical prefixes and different temporal prefixes are added to different base words. These different prefixes can change the form and meaning of the base words without word class changing.

Suffixes:
Inflectional affixes (verbal inflectional affixes, adjectival inflectional affixes, noun inflectional affixes and personal pronoun affixes) are suffixes that can be added to produce word-tokens. In English language possessive marker is expressed by various kinds of inflectional suffixes, such as /-'s/, /-s'/, preposition /of/ or by possession verb 'has'/ 'have' and by different possessive pronouns like (my, his, her, your and their) these all must be agree with an assigned subject. A noun may inflect as the dependent member of an agreement relation with a possessor noun phrase (Andrew, 2001:23). In Bambasi Mao the majority affixes are suffixes. Negative marker suffix, such as /-íkot'/ '-less', and positive marker suffix /-íkot'te/ '-ful' and derivational affixes (i.e. nominal affixes, verbal affixes, adjectival affixes and adverbial affixes except the superlative /gija-/) all of these are suffixes which are added at the end of different lexical words. Word class maintaining negative marker suffix /-íkot'/ is added to different base words and can change the form and meaning of the base words, but there is no word class change. Also Word class maintaining positive marker suffix /-íkot'te/ is added to different base words and can change the form and meaning of the base words without word class changing.

When both inflectional and derivational affixes are used, the derivational affixes are inner, closer to the stem, and inflectional affixes are outer or farthest from the stem.

Summary:
The following inflectional Affixes and their distribution were identified.

Verbal Inflectional Affixes:
Past marker inflection: past marker /-á/ 'ed' is added to main verbs in simple past structure. In Bambasi Mao present tense is not morphologically represented. Therefore, present tense is /Ø / (zero morph)

Present progressive or gerund is marked by /-biŠ/ '-ing', whereas past progressive is represented by /-bitè/ inflectional suffix.

Future tense marker is represented by the inflectional suffix /-gàmŠ/ 'will'.

Adjectival Inflectional Affixes:
Two common inflectional affixes: comparative /-íte/ '-er' and superlative /gija-/ '-est' affixes are identified.

Noun Inflectional Affixes:
Two noun inflectional affixes (possessive inflectional suffix and plural inflectional suffix) are marked by /-íŋ/'-'s' genitive and /-wole/ '-s' plural morphological affixes respectively.

All inflectional affixes are class maintaining suffixes. When they added to base words, they do not bring word category change. They are mainly suffixes.

Gender marker Affix:
In Bambasi Mao, gender is not morphologically marked. Even though gender related nouns are not morphologically marked, they semantically expressed in suppletive terms, kinship terms and supplementary gender expression.

Personal Pronouns Affix:
Nine personal pronouns are distinguished within their citation form suffix /-e/, object case marker suffix /-ná /and possessive case marker suffix /-íŋ/. The pronouns have dual gender function.
Distribution of Affixes (prefixes and suffixes)

Prefixes:
Numerical affixes, such as /íŠkí-/ 'mono-', /numbu-/ 'bi-', /te:z-/ 'tri-' and /gejesí-/ 'multi-'; temporal affixes like, /tiwiŠin-/ 'post-' and /jeníŠ-/ 'pre-' as well as superlative affix /gija-/ 'est' are added at the beginning of lexical words.

Suffixes:
In Bambasi Mao the majority affixes are suffixes. Negative marker suffix, such as /-íkot'/ '-less', and positive marker suffix /-íkot'te/ '-ful' and derivational affixes (i.e. nominal affixes, verbal affixes, adjectival affixes and adverbial affixes except the superlative /gija-/) all of these are suffixes which are added at the end of different lexical words. Similarly, inflectional affixes (verbal inflectional affixes, adjectival inflectional affixes, noun inflectional affixes and personal pronoun affixes) are suffixes that can be added to produce word-tokens.

When both inflectional and derivational affixes are used, the derivational affixes are inner, closer to the stem, and inflectional affixes are outer or farthest from the stem.

Conclusion:-
This study has attempted to present the process of Affixes in Bambasi Mao language.
In the process of inflectional affixation in Bambasi Mao language,
1. There is no present time marker morpheme;
2. Past marker, Present progressive marker, past progressive marker, and future tense markers possess their own feature.
3. All inflectional affixes are class maintaining suffixes. When they added to base words, they do not bring word category change. They are mainly suffixes.

Recommendations:-
Mao language learners, language users, teachers, curriculum designers, researchers, and Regional Education Bureau of Benishangul Gumuz, should give emphasis to the following recommendations drawn from findings of the study.
1. Because of the existence of dual pronouns in the language, meaning is well identified in context.
2. The language syllabus should be designed in the way it helps students to construct new words from different word classes in derivational process.
3. In the process of inflectional affixation, affixes should be understood as grammatical function rather than new word forming; past marker, present progressive marker, past progressive marker, and future tense marker features should be well identified separately for learners.
4. Finally, the researchers believe that further studies should be conducted in the syntactic and semantic areas of the language independently.

supervision on the course of data collection and writing up the report. These bodies were grateful for they didn't make any pressure that affects the study.

Conflict of interests:
The authors declare no conflict of interest.

References:-

1. Ahland, M. (2010). Aspects of Northern Mao (Bambassi-Diddesa) phonology. Linguistic Discovery 7.1-38.
2. ----------------(2012). A Grammar of Northern Mao (Ma`we´s ase`): Oregon University.
3. Alemayehu Dumesa. (1999). "Word formation in Diddissa Mao. Addis Ababa University: Graduate School."
4. Bender, M. (1975) "The Beginning of ethno-history in Western Wellega: The Mao language problem."
5. Chomsky, N. (1986a).Knowledge of Language. New York: Praeger.
6. ----------- (1970). ''Remarks on Nominalization.''Massachusetts: Ginn.
7. Fleming, H. C. (1988). "Mao's Ancestor: Consonant Phonemes of Proto-Mao, stage one." Proceedings of the Ninth International Congress of Ethiopian Studies. Moscow, 21-26.
8. Henry, M. (1997). The decoding / spelling curriculum: Integrated decoding and spelling instruction from the school to early secondary school. Dyslexia, 3, 178-189.
9. Kroeger, P. (2005). Analyzing Grammar: An Introduction. New York: Cambridge University Press.
10. Lieber, R. (2009). Introductions to Language and Linguistics: Word Mental lexicon inflection. New York: Cambridge University Press.
11. Nagy, W. (2007). Contribution of morphology beyond phonology to literacy outcomes of upper elementary and middle school students. Journal of Education Psychology, 98(1),134-147.
12. Negassa, E. and Taliye, B. The Derivational Affixes of Bambasi Mao Language: Morphological Analysis. International Journal of Academic Research. ISSN: 2348-7666; Vol.5, Issue-1, January, 2018.
13. Payne, E. (1997). Exploring Language Structure. New York: Cambridge University press.
14. Selkirk, E. (1982). The Syntax of Words. Cambridge: The MIT Press.
15. Siebert, R. (2002). "Third S.L.L.E Survey of languages of the Begi in Assosa area."
16. O,Grady, W. (1987).Contemporary Linguistic Analysis. New York: Longman Company.