

Analyzing Prefix /me(N)-/ in the Indonesian Affixation: A Corpus-Based Morphology

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Abstract—This paper presents a corpus-based study of the prefix /me(N)-/ in Indonesian, a productive affix used to form predicative constructions. The analysis was based on the Indonesian – Leipzig Corpora Collection (ILCC). It explored the prefix's distribution, functions, and productivity, focusing on its role in encoding semantic and syntactic features. The results showed that the prefix /me(N)-/ was predominantly used to derive verbs, accounting for over 68,7% at the mean value of 7,1. However, /me(N)-/ was also employed to derive adjectives, albeit less frequently (19,4%), at the mean value of 6,3, and about 12% of forming new words from noun stems (mean value was about 5,9). Semantically, the prefix can uniquely express causative (49,24% at a mean value of 43), instrumental (11,45% at a mean value of 10), reflexive (19,47 at a mean value of 17), possessive/state meanings (10,31% at a mean value of 9), and reciprocal (9,54% at a mean value of 8,3). Derived verbs with the prefix /me(N)-/ had syntactic functions influenced by their semantic meaning. Some of the most common and distinctive syntactic functions of /me(N)-/ are form monovalent (29,18% having a mean value of 27,33), bivalent (48,40% having a mean value of 45,33), and trivalent (22,42% having a mean value of 21). The study demonstrated that /me(N)-/ was highly productive. Future research could examine the cognitive and processing mechanisms involved in understanding /me(N)-/derived words.

Index Terms—affixation, corpus, Indonesian, prefix /me(N)-/, words construction

I. INTRODUCTION

Indonesian is known for having a complex and intricate morphological system that utilizes prefixes, suffixes, and infixes to derive words from stems (Isodarus, 2023; Nugraha & Baryadi, 2019; Sneddon, 1996). Among these affixes, the prefix /me(N)-/ is particularly noteworthy for its versatility and widespread usage. It can be attached to a wide range of stems, including both native and borrowed words, to form derived constructions. This prefix is crucial to Indonesian language structure since it encodes semantic and syntactic features. However, comprehending its meaning and usage has been challenging for researchers due to the limitations of traditional morphological analysis. The traditional approach relies on intuition and limited data sets, often leading to subjective interpretations and an incomplete understanding of affixation patterns. Researchers have adopted a more systematic approach to overcome this challenge (Dal & Namer, 2015; Gries & Paquot, 2020). This approach involves analyzing large data sets of actual language usage to obtain an objective and comprehensive understanding of affixation patterns. By adopting corpus-based morphology (Gries & Durrant, 2020; Paquot & Larsson, 2020), researchers can gain valuable insights into the usage and meaning of the prefix /me(N)-/, contributing to a more accurate and detailed understanding of Indonesian.

This research paper uses corpus-based morphology to explore the intricate workings of the prefix /me(N)-/ in the Indonesian language. We have relied on the Indonesian – Leipzig Corpora Collection (hereafter ILCC) as our primary data source. Our analysis comprehensively examines the prefix's distribution, functions, and productivity. Through our findings, we aim to provide a detailed insight into the roles the prefix plays in forming Indonesian words. Therefore, the following are the questions this study aims to answer: 1) what distribution does the prefix /me(N)-/ have in Indonesian words; which situations are the most frequent ones in which it appears? and 2) what syntactic and semantic roles does the prefix /me(N)-/ serve?

II. LITERATURE REVIEW

A. Theoretical Framework

The study of the prefix /me(N)-/ in Indonesian affixation is grounded in the principles of morphology. Morphology seeks to uncover how morphemes, the minor meaning-bearing language units (Embick, 2013), are combined to form words (Hathout & Namer, 2019). To analyze the prefix /me(N)-/, we rely on the Word and Paradigm Morphology (Bonami & Strnadov 2019). The paradigm consists of sets of words that share a standard stem and exhibit systematic changes in form due to affixation (Ronneberger-Sibold, 2015). This approach enables us to identify patterns using the prefix, which can help us determine its meaning in different grammatical contexts.

The prefix /me(N)-/ demonstrates a system of allomorphy where the form of the prefix changes depending on the initial consonant of the stem it is attached to. To understand and analyze the distribution and functions of /me(N)-/ better, it is essential to have a clear and comprehensive understanding of these allomorphic patterns (Dressler, 2015).

The prefix /me(N)- has several allomorphs: /me-/ , /men-/ , /mem/ , /meng-/ , /menge-/ , and /meny-/ . The choice of allomorph depends on the initial sound and vowel of the base word. The distribution of the allomorphs of /me(N)-/ can be explained by a general rule that states that the prefix /me(N)-/ takes the form /men-/ or /mem-/ if the base word starts with a consonant, it takes the form /me-/ or /meng-/ if the base word starts with vowel, it takes the form /menge-/ if the base word is monosyllabic, and it take form /meny-/ if the base starts with fricative consonant.

Furthermore, the present study adopts a corpus-based methodology to investigate the distribution, functions, and productivity of the Indonesian language's morpheme /me(N)-/. This research employs large datasets of Indonesian texts to conduct a rigorous and data-driven analysis of this morphological unit, scrutinizing a corpus-based approach (Gries, 2015; Kilgarriff, 2005). Corpus linguistics provides a systematic and empirical approach to linguistic analysis (Baayen, 2008; B   b   e et al., 2021). In addition, the prefix /me(N)-/ can be analyzed from two perspectives: syntactic (Lieber, 2006a) and semantic (Can   ado & Gon   alves, 2016). The syntactic analysis examines the grammatical roles of derived constructions in their respective sentences to determine how /me(N)-/ affects the structure of sentences and contributes to the expression of semantic and syntactic relationships. This analysis can provide insights into how /me(N)-/ modifies the meaning of words in context. A comprehensive understanding of the functions of /me(N)-/ requires both syntactic and semantic analysis, as these two approaches provide complementary insights into their effects on language structure.

B. Previous Research

Uhlenbeck's (1952) seminal work analyzed the Indonesian grammar. According to Uhlenbeck, the prefix's primary function is causative, indicating that the agent of the action causes the action to occur. However, he also observed that prefixes can express a range of other semantic functions, including reciprocity, passivity, reflexivity, and possession. Additional research has contributed to our comprehension of the semantic and syntactic functions of the prefix. Teeuw (1962) introduced a more precise semantic categorization that distinguishes between primary and secondary causative connotations. Primary causative verbs reveal an action that the agent directly prompts. In contrast, secondary causative verbs convey an indirect causal connection, where the agent initiates the action, but the real cause may be external to the agent (cf. Blust, 1987).

Furthermore, Verhaar (1983) analyzed the distributional patterns of prefixes in terms of their compatibility with different types of stems. Verhaar's study included native Indonesian words, borrowed words, and complex words. Additionally, he examined the allomorphy patterns of the prefix, highlighting its assimilation with the initial consonants of the stem. According to Tampubolon's (1983) classification, the prefix is a causative affix, meaning that the derived word describes an action that the verb's agent causes. In addition, Chaer (2008) and Kridalaksana (2009) also explored the semantic functions of Indonesian affixes. Their research showcased the affixes' capacity to express causation by indicating that the agent of the action causes the event to occur. Additionally, they observed that the affixes can be used for reciprocal actions, signifying that the action involves two or more participants in a complementary manner. Lastly, recent study has adopted corpus-based and computational methods to research morphological processes in Indonesian (e.g., Amalia et al., 2021). Notable works by Denistia and Baayen (2022) utilize quantitative approaches to investigate the frequency, distribution, and usage trends of morphemes, providing empirical evidence to support theoretical frameworks. Nevertheless, the prefix /me(N)-/ has not been thoroughly covered in these researches.

Previous studies on the prefix in Indonesian affixation have often relied on small-scale corpora or manually selected examples, which limits the generalizability of the findings and may overlook essential patterns in using the prefix. However, there is a need to explore other syntactic and semantic functions of the prefix and how these functions interact with each other. On the other hand, traditional morphological analysis methods rely on intuition and limited data sets, limiting their ability to comprehensively understand complex morphological phenomena like /me(N)-/. In short, corpus-based morphology offers a more data-driven and systematic approach to analyzing affixation patterns.

III. METHOD

In our Indonesian affixation study, we employed a corpus-based morphology approach. Specifically, we analyzed the prefix /me(N)-/ to better understand its linguistic properties and usage patterns. We drew upon the Indonesian – Leipzig Corpora Collection (ILCC) as our primary data source to do this (see Table 1). The ILCC is a comprehensive repository of Indonesian language data, containing over 1 trillion tokens spanning various genres and registers. Utilizing this corpus, we conducted a detailed and comprehensive analysis of the prefix /me(N)-/.

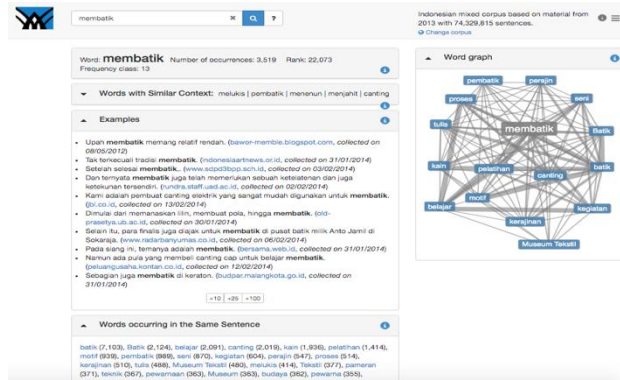


Figure 1. An Example of Occurrence Retrieval in the Corpus

TABLE 1
DETAILS OF THE INDONESIAN – LEIPZIG CORPORA COLLECTION

1.	Description	Indonesian mixed corpus based on material 2013
2.	Name	Ind_mixed_2013
3.	Language	Indonesian
4.	Genre	Mixed
5.	Year	2013
6.	Sentences	74,329,815
7.	Types	7,964,109
8.	Tokens	1,206,281,985
8.	Annotations	coocSim; GDEX
10.	Link to corpus	https://corpora.uni-leipzig.de/?corpusId=ind_mixed_2013

First, data collection. To begin the process, we carefully examined the ILCC, closely scrutinizing verb, adjective, and noun forms for occurrences of the prefix /me(N)-/. By utilizing the search features of the ILCC, we could accurately identify words that contain this prefix. This comprehensive search was conducted across the entire ILCC corpus, which includes various linguistic contexts, ensuring our findings are comprehensive and representative (see Figure 1). The data collection involved three types of matrices: one for verbal constructions (see Table 4), the second for adjectival constructions (see Table 6), and the other for nominal constructions (see Table 8). The former was constructed using the postulate of verbs (Viberg, 1983, 2014), while the latter was constructed using the premise of adjectives (Hundsnerscher, 1992, 2013), and the last one was constructed by using the hypothesis of nouns (Aikhenvald, 2017, 2020).

TABLE 2
THE FREQUENCY OF THE PREFIX /ME(N)-/ IN THE WORD CONSTRUCTIONS

Grammatical Context	Freq. per Category			Rank	(%)
	I	II	III		
Verbs stems	3,848,263	2,817,588	1,455,449	8,121,300	68,7
Adjective stems	1,303,055	457,176	527,898	2,288,129	19,4
Noun stems	799,387	182,790	432,840	1,415,017	12,0
TOTAL	5,950,705	3,457,554	2,416,187	11,824,446	100

Second, annotation and classification. To acquire a more comprehensive comprehension of the context and functions of the prefix /me(N)-/, we engaged in a meticulous annotation process. This process involved identifying and labelling each instance of the prefix with the corresponding stem and identifying the semantic and syntactic functions of the derived word. We scrutinized the UDPipe, a trainable pipeline for tokenization, tagging, lemmatization and dependency parsing (website: <https://lindat.mff.cuni.cz/services/udpipe/>).

TABLE 3
THE DESCRIPTIVE STATISTIC OF THE PREFIX /ME(N)-/ IN WORD CONSTRUCTIONS

	Verb stem	Adjective stem	Noun stem
Mean	7,1	6,3	5,9
Median	1,4	1,6	2,8
Sample Variance	26,6	85,2	49,6
Std. Deviation	5,2	9,2	7,0
Std. Error	1,4	2,3	1,7
Confidence level (95%)	3,0	4,9	3,6

Third, frequency and distributional analysis. We conducted a frequency analysis to determine the prevalence of /me(N)-/ in Indonesian affixation. This procedure involved calculating the frequency of occurrence of the prefix in various verb, adjective, and noun paradigms and across different semantic domains. This analysis gave us valuable

insights into the relative importance and distribution of /me(N)-/ in Indonesian word formation. Then, we looked for patterns and trends to explore further the distribution of /me(N)-/ across different types of constructions. Specifically, we examined the types of stems to which the prefix was attached. This analysis helped us better understand the behavior of /me(N)-/ in Indonesian morphology.

Lastly, syntactic and semantic analysis. To investigate /me(N)-/'s syntactic functions, we examined the grammatical roles of the derived verbs and adjectives in their respective sentences. Our goal was to gain insight into how /me(N)-/ influences the syntactic structure of the sentences and contributes to the expression of semantic and syntactic relationships. To further investigate the semantic functions of /me(N)-/, we analyzed the changes in meaning that occur when the prefix is attached to different types of stems. This investigation involved identifying the fundamental semantic associations of /me(N)-/ and how they contribute to expressing diverse semantic concepts.

IV. FINDINGS AND DISCUSSION

A. The Distribution of the Prefix /me(N)-/ Across Derived Constructions

The prefix /me(N)-/ holds significant importance in Indonesian morphology, as it serves as a versatile tool for creating new words from existing stems, i.e., verbs, adjectives, and nouns; consider the sentence (1) – (3) respectively. The verb /mendengar/ ‘heard’ (Σ -occurrence: 148,865) is derived by the prefix /me(N)-/ from the verb stem /dengar/ ‘hear,’ meanwhile the verb /memerah/ ‘blush or bloodshot’ (Σ -occurrence: 5,803) is derived by the same prefix from the adjective /merah/ ‘red,’ and the verb /merakyat/ ‘popular’ (Σ -occurrence: 2,470) is prefixed from the noun stem /rakyat/ ‘populace.’ Understanding its distribution and usage patterns across these stems is crucial for comprehending the intricate mechanics of Indonesian word formation (see Figure 2). To gain a comprehensive grasp of the prefix’s distribution, it is essential to examine its prevalence in verbal, adjectival, and nominal constructions and identify the most common contexts in which it appears (cf. Loukides et al., 2023; Michaliszyn et al., 2023).

- (1) *Tiba-tiba aku **mendengar** suara lirih memanggil namaku* (ILCC, 2013).
Sudently.ADV I.PS1 hear.VERB voice.NOUN soft.ADJ call.VERB name-NOUN my-PS1
‘Suddenly I heard a soft voice calling my name.’
- (2) *Matanya pun **memerah** karena kelelahan* (ILCC, 2013).
Eyes.NOUN his/her.PS3 blush.VERB because.ADP fatigue.NOUN
‘His/her eyes were bloodshot from fatigue.’
- (3) *Kini mereka lebih **merakyat*** (ILCC, 2013).
Now.ADV they.PP3 more.ADV popular.VERB
‘Now they are more popular.’

Our corpus-based analysis of the Indonesian prefix /me(N)-/ reveals a complex and nuanced distribution across verbs, adjectives, and nouns derivation (see Table 2). The prefix is predominantly used to derive verbs, accounting for over 68,6% of its occurrences in the corpus. This dominance of verbs reflects the prefix’s primary function as a causative affix, adding the notion of cause or agency to the meaning of the stem. However, /me(N)-/ is also employed to derive adjectives, albeit less frequently (19.4%), and about 12% of forming new words from noun stems. The descriptive statistic has been presented in Table 3. The data analyzes the usage of the prefix /me(N)-/ across three types of stems: verb, adjective, and noun. Each stem type has five descriptive statistical values. Based on the mean values, the prefix is most frequently used with verb stems (7,1), followed by adjective stems (6,3) and noun stems (5,9). These values suggest that the prefix may primarily facilitate the transformation of verb stems into verb constructions. The median values reveal a different pattern, with nouns having the highest median (2,8), followed by adjectives (1,6) and verbs (1,4). These values indicate a central tendency towards noun stems for prefix use. The sample variance and standard deviation are highest for adjective stems (85,2 and 9,2), suggesting more significant variability in prefix usage compared to verb (26,6 and 5,2) and noun stems (49,6 and 7,0). These values imply more diverse interpretations of prefix meaning with adjective stems. The estimated ranges for each stem type, with a 95% confidence level, offer insights into the possible spread of prefix usage. The broader range of adjectives (4,9) reinforces the observed variability compared to nouns (3,6) and verbs (3,0).

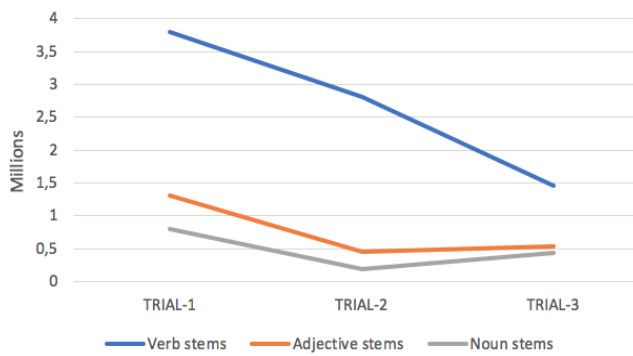


Figure 2. Comparison of the /me(N)-/ Prefixation in the Word Constructions

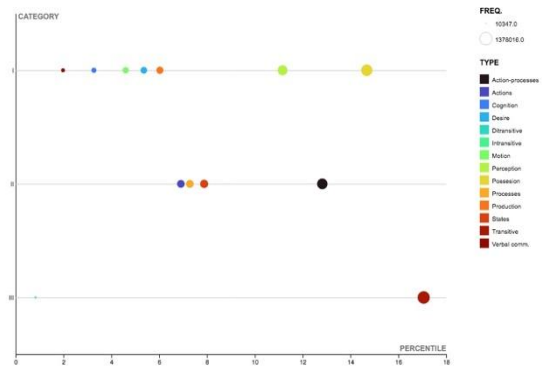


Figure 3. Distribution of Prefix /me(N)-/ in the Verb-Stem Constructions

One exciting aspect of the prefix /me(N)-/ is its versatile nature regarding its distribution across verb paradigms (*see* Figure 3). A detailed analysis of the verb stem constructions reveals that this prefix is most attached to stems of three types: transitive, possession, and action-processes. This graph displays the distribution of the prefix /me(N)-/ within the Verb-Stem Constructions of the Indonesian language. The x-axis indicates the frequency of the prefix (in percentile), while the y-axis displays the different types of verb stems. Based on this graph, the prefix /me(N)-/ is frequently utilized with verbs associated with an agent’s actions and states or conditions that an agent causes. However, it is less commonly used with verbs attached to stems of two types: verbal communication and desire.

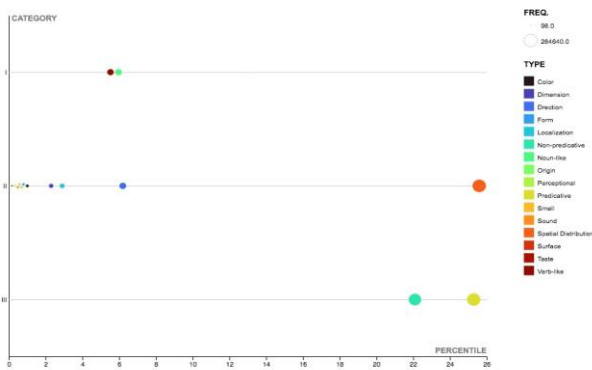


Figure 4. Distribution of Prefix /me(N)-/ in the Adjective-Stem Construction

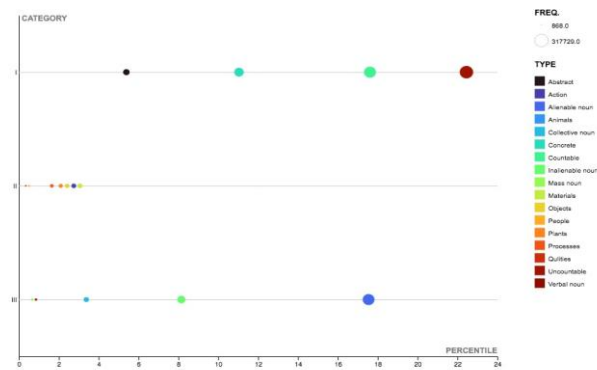


Figure 5. Distribution of Prefix /me(N)-/ in the Noun-Stem Constructions

TABLE 4
THE TABULATION OF FREQUENCY OF PREFIX /ME(N)-/ IN THE VERB-STEM CONSTRUCTIONS

Category I: Typological Aspects		Freq.1	Category II: Semantic Aspects		Freq.2	Category III: Syntactic Aspects		Freq.3		
Motion	/menghilang/ 'disappear'	26,014	States	/menebak/ 'to guess'	5,412	Transitive	/meminjam/ 'to borrow'	17,775		
	/mendatang/ 'to come'	231,404		/menyentuh/ 'to touch'	43,751		/membawa/ 'to bring'	343,743		
	/mengalir/ 'to flow'	57,793		/memuja/ 'to adore'	4,119		/membayar/ 'to pay'	132,427		
	/mengejar/ 'to chase'	56,274		/merasa/ 'to perceive'	456,937		/membeli/ 'to buy'	208,964		
Possession	/memberi/ 'to give'	380,176		/mengukur/ 'to measure'	40,005		/menjual/ 'to sell'	130,584		
	/mengambil/ 'to take'	340,161		/menimbang/ 'to weigh'	4,923		/menghapus/ 'to erase'	30,433		
	/mengirim/ 'to ship'	64,365		/menyangkut/ 'to involve'	79,765		/memberi/ 'to give'	380,176		
	/mengunduh/ 'to have'	7,775		/menyanjung/ 'to laud'	1,214		/melewati/ 'via'	94,276		
	/menerima/ 'to receive'	393,274		/mencipta/ 'to create'	3,415		/melempar/ 'to throw'	13,329		
Production	/mengarang/ 'to compose'	4,201		Processes	/membakar/ 'to burn'		29,433	Intransitive	/melamar/ 'to apply'	11,900
	/membangun/ 'to construct'	316,211			/melukis/ 'to paint'		7,541		/menginjak/ 'to step'	14,409
	/membina/ 'to build'	22,598			/meledak/ 'to explode'		22,099		/meronta/ 'struggling'	1,628
	/memakai/ 'to use'	144,074	/mendapat/ 'to acquire'		483,245	/mengernyit/ 'frowning'	297			
Verbal communication	/menyanggah/ 'to say'	2,133	/menggoyang / 'to rock'		2,643	/melirik/ 'glance'	12,545			
	/menyapa/ 'to greet'	14,141	/menukar/ 'to change'		6,440	/melaju/ 'drove'	31,663			
	/memanggil/ 'to call'	50,610	/memotong/ 'to cut'		27,041	/memejam/ 'closes'	129			
	/menyebut/ 'to mention'	124,627	Actions		/memakan/ 'to eat'	57,359	/memicing/ 'squint'		52	
	/menyanyi/ 'to sing'	14,079			/melompat/ 'to jump'	13,371	/melotot/ 'glared'		1,898	
Perception	/melihat/ 'to see'	728,150			/menulis/ 'to write'	157,919	/menggelinjang/ 'rolling'		1,212	
	/mendengar/ 'to hear'	148,865			/memasak/ 'to cook'	24,601	/merejan/ 'whooping'		12	
	/menggeleng/ 'shook his head'	6,525			/menggeser/ 'to move'	11,423	/merosot/ 'degenerate'		16,626	
	/mencium/ 'to smell'	17,731	/membaca/ 'to read'	227,845	/mengejan/ 'straining'	1,024				
	/mencecap/ 'to taste'	239	/menyanyi/ 'to sing'	14,079	Ditransitive	/menyematkan/ 'embed'	3,391			
Cognition	/mengerti/ 'to understand'	3,190	/menyusun/ 'to arrange'	63,235		/menjahitkan/ 'sewing'	165			
	/menyitir/ 'to cite'	753	/mengikat/ 'to bind'	27,967		/menugasi/ 'assign'	535			
	/mengenal/ 'to recognize'	118,603	/membuka/ 'to open'	270,784		/menidurkan/ 'lull'	735			
	/mengingat/ 'to remember'	141,425	/memeluk/ 'to hug'	23,178		/menulisi/ 'write'	104			
Desire	/mengembara/ 'to wander'	2,221	Action-processes	/memeriksa/ 'to verify'		61,654	/membangunkan/ 'wake'	5,322		
	/menjelajah/ 'to explore'	6,263		/menutup/ 'to close'		103,091	/menyeduhkan/ 'brew'	15		
	/mengharap/ 'hope'	8,432		/melatih/ 'to train'		40,679	/menggorengkan/ 'fry'	6		
	/meminta/ 'to ask'	385,164		/mengajar/ 'to teach'		92,742	/merebuskan/ 'boil'	7		
	/memohon/ 'to request'	30,792		/mencari/ 'to search'		409,678	/meniriskan/ 'drain'	67		
TOTAL		3,848,263	TOTAL	2,817,588		TOTAL	1,455,449			

The prefix /me(N)-/ is a productive prefix in Indonesian, forming a wide range of verbs. It can be added to the roots of both native and foreign Indonesian stem-forms to form causative, reciprocal, and reflexive verbs. Causative verbs describe the action of causing something to happen. For example, the verb /memasak/ 'to cook' (Σ -occurrence: 24,601) derives from the root /masak/ 'to be cooked.' The prefix /me(N)-/ implies that the subject of the verb is causing the action of cooking to occur on something else. Reciprocal verbs describe how two or more people or things interact with one another. For example, the verb /memeluk/ 'to hug' (Σ -occurrence: 23,178) derives from the root /peluk/ 'to be hugged.' The prefix /me(N)-/ signifies that two individuals are hugging. Reflexive verbs describe the action of someone or something doing something to itself. For example, the verb /membaca/ 'to read' (Σ -occurrence: 227,845) derives from the root /baca/ 'read.' The prefix /me(N)-/ denotes that the subject of the verb wipes themselves. In general, the prefix /me(N)-/ can be appended to any root that can be combined to make a verb.

Furthermore, in Indonesian, the prefix /me(N)-/ is also a productive prefix for deriving adjectives (see Figure 4). It is most common in the formulation of causative verbs, which describe activities that cause a change in status or situation. When it comes to adjectives, /me(N)-/ is employed to transform static or descriptive adjectives into active verbs that indicate the process or act of achieving the quality or trait represented by the adjective. Adjective causativization is the process by which adjectives become verbs. The distribution of /me(N)-/ among Indonesian adjectives is determined by a number of elements, including the adjective stem's first consonant, the adjective's semantic character, and the existence of certain prefixes or suffixes on the stem. The prefix /me(N)-/ is typically applied straight to consonant-initial adjective stems. However, if the adjective stem starts with the consonant [b], the prefix becomes /mem-/. For example, the adjective /bahagia/ 'happy' can be used to form the causative verbs /membahagiakan/ 'felicitate' (Σ -occurrence: 7,918). Besides, the prefix /me(N)-/ is more commonly used with adjectives that express static qualities, such as size, color, or physical state. For instance, from the adjective /besar/ 'big', we can derive the verb /membesar/ 'to grow' (Σ -occurrence: 11,878). With adjectives that express abstract qualities or mental states, the use of /me(N)-/ is less common. Despite that, other causative prefixes or verbs are typically employed. For example, to express the action of 'making someone happy,' we would use the verb /menyenangkan/ 'to make something enjoyable or pleasant' (Σ -occurrence: 83,909).

In terms of noun-stem constructions (see Figure 5), the prefix /me(N)-/ is most typically used to build verbs indicating activities performed by an agent. For example, the noun /buku/ 'book' can have prefixed with /me(N)-/ to form the verb /membukukan/ 'to chronicle' (Σ -occurrence: 21,338), which meaning 'to perform the action of writing.' The prefix /me(N)-/ can also be used to build verbs describing states or conditions caused by an agent. The noun /panen/ 'growth' can have prefixed with /me(N)-/ to form the verb /memanen/ 'harvest' (Σ -occurrence: 3,963), meaning 'to cause growth to be in a state of harvesting.' The prefix /me(N)-/ can be used to create verbs that refer to instruments or tools used to complete an action. For example, the noun /gunting/ 'scissors' can have preceded by /me(N)-/ to produce the verb /menggunting/ 'to cut' (Σ -occurrence: 1,677) which means 'to use a scissors to cut something.' In some circumstances, the prefix /me(N)-/ can be utilized to create verbs that indicate changes in state or condition. For example, the word /beku/ 'freeze' can have prefixed with /me(N)-/ to generate the verb /membeku/ 'turn into freeze' (Σ -occurrence: 3,848), which meaning 'to transition from a liquid to a solid state'.

B. Semantic Functions of Prefix /me(N)-/

The prefix /me(N)-/ is a highly productive and versatile affix in the Indonesian language. It is mainly used to form verbs but can also be added to stem of adjectives or nouns. The prefix can uniquely express causative (49,24% at a mean value of 43), instrumental (11,45% at a mean value of 10), reflexive (19,47 at a mean value of 17), possessive/state meanings (10,31% at a mean value of 9), and reciprocal (9,54% at a mean value of 8,3). This analysis explores the complex semantic functions of /me(N)-/ and how they transform derived words' meanings and grammatical roles (see Figure 6). We examine the prefix's role in expressing causation, highlighting how it introduces the concept of agency and an agent-initiated event. We also explore /me(N)-/'s role in encoding reflexivity, illustrating how it marks actions directed back at the agent. Additionally, we investigate /me(N)-/'s contribution to encoding reciprocity, revealing how it conveys the simultaneous involvement of two or more agents in an action. We examine the prefix's use in forming possessive and state adjectives, revealing how it denotes possession or a state of being. Analyzing these intricate semantic and syntactic functions gives us a deeper understanding of the multifaceted nature of /me(N)-/ and its pivotal role in shaping Indonesian word formation (cf. Cahyani, 2021; Nugraha, 2017, 2021).

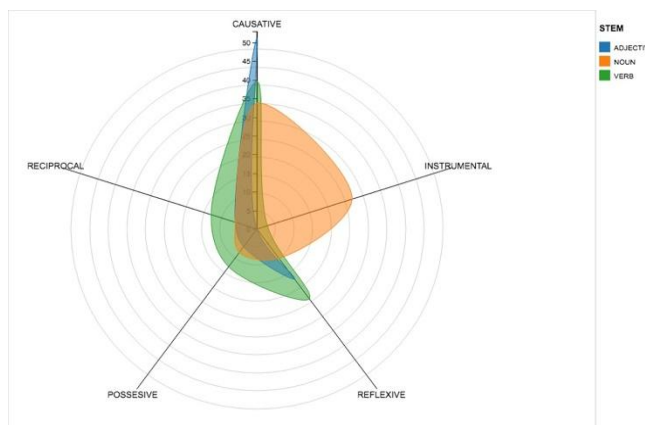


Figure 6. Spread of the Semantic Functions of the Prefix /me(N)-/ in Word Structures

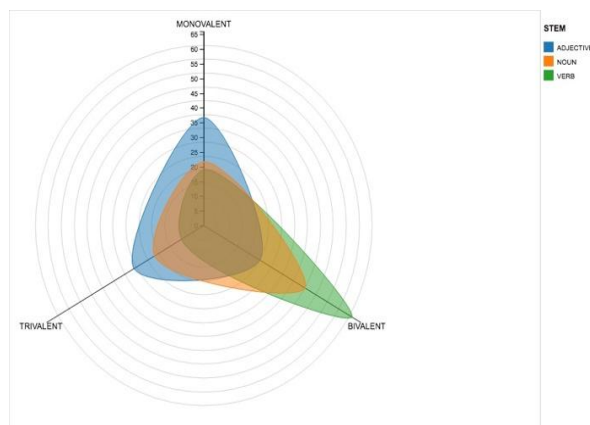


Figure 7. Propagation of the Syntactic Functions of the Prefix /me(N)-/ in Word Structures

The Table 5 displays the correlation coefficients between various functions associated with the prefix /me(N)-/ in Indonesian. The strongest correlation exists between Reflexive and Reciprocal functions, with a value of 0.866, indicating a positive and moderate to strong association. This suggests that verbs with a reflexive meaning are often also reciprocal, meaning they are performed by two or more entities on each other. Positive correlations exist between Reciprocal and Possessive (0.961) and Reflexive and Possessive (0.693), indicating that verbs with a reciprocal or reflexive meaning are more likely to have a possessive meaning. A negative correlation (-0.818) exists between Instrumental and Reflexive functions, meaning that verbs with an instrumental meaning (using a tool) are less likely to be reflexive (done to oneself). The remaining weak correlations, ranging from -0.454 to -0.141, suggest a limited relationship between these functions in the prefix /me(N)-/. While the matrix provides insights into the relationships between different functions, further analysis is necessary to understand the underlying reasons behind these correlations and how they interact in specific contexts.

TABLE 5
CORRELATION TEST RESULTS ON THE MEANING PRODUCED BY THE PREFIX /ME(N)-/ IN WORD STRUCTURE

	CAUSATIVE	INSTRUMENTAL	REFLEXIVE	POSSESSIVE	RECIPROCAL
CAUSATIVE	1				
INSTRUMENTAL	-0,818	1			
REFLEXIVE	0,327	-0,818	1		
POSSESSIVE	-0,454	-0,141	0,693	1	
RECIPROCAL	-0,189	-0,410	0,866	0,960	1

Furthermore, the prefix /me(N)-/ is frequently used to create verbs that indicate actions carried out by an agent. This prefix is added to a noun and forms a verb that signifies the act of performing a particular action. For instance, the noun /gembala/ 'shepherd' can have prefixed with /me(N)-/ to form the verb /menggembala/ 'to herd' (Σ -occurrence: 557) as in sentence (4). This construction is commonly used in the Indonesian language to create verbs and communicate actions carried out by a subject.

- (4) *Suatu hari aku menggembala cukup jauh dari desa* (ILCC, 2013).
One.DET day.NOUN I.PS1 to herd.VERB quite.ADV far.ADJ from.ADP village.NOUN.
'One day I was herding quite far from the village.'

The prefix /me(N)-/ is often used to form verbs denoting states or conditions caused by an agent. This prefix is particularly useful for expressing the causative aspect of a verb, which is the idea that an action or event is caused or brought about by another person or thing. For example, the noun /hukum/ 'law' can have prefixed with /me(N)-/ to form the verb /menghukum/ which means 'to convict' (Σ -occurrence: 14,971) as in sentence (5). In this case, the prefix /me(N)-/ indicates that the agent performs the action of causing oneself to be in a state of punished (i.e., the person experiencing the punishment).

- (5) *Li menghukum banyak menteri setia yang menentangnya* (ILCC, 2013).
Li.PROPN punish.VERB many.ADV minister.NOUN loyal.NOUN who.PRON oppose.VERB nya.PS3
'Li punished many loyal ministers who opposed him.'

In Indonesian, the prefix /me(N)-/ forms verbs that indicate the tools or instruments used to perform an action. To illustrate, take the noun /gunting/ 'scissors' which can be combined with the prefix /me(N)-/ to form the verb /menggunting/ 'to cut.' This newly formed verb conveys the idea of 'using a scissors to cut something.' Therefore, the

prefix /me(N)-/ helps create verbs that are descriptive of the actions carried out with the help of specific tools or instruments.

- (6) *Rupanya, dia sedang **menggunting** sebuah kertas* (ILCC, 2013).
 Apparently.ADV he/she.PRON currently.AUX cutting.VERB a piece of.DET paper.NOUN
 ‘Apparently, he was cutting a piece of paper.’

Subsequently, prefix /me(N)-/ can also convey reflexive meanings. Reflexive meaning is conveyed when the action is done to oneself. Reflexive meanings refer to semantic meanings in which the agent and the patient of an action are identical. In other words, the action is performed by and on the same individual. Reflexive verbs, prevalent in many languages, such as Indonesian, convey these meanings. They express that the action of a verb is directed at the same person or entity that is performing it. This configuration can effectively highlight an action's self-oriented nature. For instance, consider the construction /membaca/ ‘to read’ as in sentence (7).

- (7) *Ammar memang suka **membaca**, apalagi buku-buku PTS* (ILCC, 2013).
 Ammar.PROPN really.ADV like.VERB reading.VERB especially.ADP book.NOUN PTS.PROPN
 ‘Ammar really likes reading, especially PTS books.’

TABLE 6
THE TABULATION OF FREQUENCY OF PREFIX /ME(N)-/ IN THE ADJECTIVE-STEM CONSTRUCTIONS

Category I: Typological Aspects		Freq.1	Category II: Semantic Aspects		Freq.2	Category III: Syntactic Aspects		Freq.3
Verb-like	/memampukan/ 'enabling'	1,577	Perceptual	/menerangi/ 'illuminate'	5,242	Predicative	/meneliti/ 'research'	4,464
	/melayakkan/ 'make proper'	128		/mengg gelapkan/ 'darken'	2,149		/mencermati/ 'pay close attention'	10,613
	/mematutkan/ 'demanding'	12	Color	/memerah/ 'redden'	5,803		/menenangkan/ 'calm'	14,668
	/memerlukan/ 'need'	124,695		/membiru/ 'turn blue'	991		/melengkap/ 'to complete'	52,332
	/mewajibkan/ 'oblige'	16,803		/memudar/ 'faded'	4,633		/melapangkan/ 'to expand'	1,247
	/mengharuskan/ 'necessitate'	20,712	Sound	/mengeras/ 'become louder'	4,770		/memanjangkan/ 'lengthen'	1,731
	/mementingkan/ 'prioritize'	12,276		/melembutkan/ 'soften'	1,810		/membahagiakan/ 'felicitate'	7,918
	/memantaskan/ 'appropriate'	114	Taste	/memaniskan/ 'sweeten'	53		/menyenangkan/ 'delight'	83,909
	/memuliakan/ 'glorify'	6,929		/memasamkan/ 'acidify'	17		/menenteramkan/ 'reassure'	697
	/mewajarkan/ 'make neutral'	67		/mengasinkan/ 'marinate'	28		/menyedihkan/ 'sadden'	11,853
	/meninggikan/ 'elevate'	4,313	Smell	/mewangi/ 'fragrant'	287		/mengagetkan/ 'surprise'	4,083
	/merendahkan/ 'condescending'	9,819		/mengharumkan/ 'scented'	6,517		/memarahi/ 'reprove'	3,140
	/membolehkan/ 'enable'	9,261	Surface	/mengasari/ 'to rough'	138		/mengecewakan/ 'disappointing'	15,601
	/menentukan/ 'specify'	194,451		/menghaluskan/ 'to smooth'	2,416		/memuaskan/ 'satisfying'	48,904
	/memastikan/ 'determine'	133,796	Dimension	/memanjang/ 'elongates'	9,471		/membangunkan/ 'confusing'	9,380
	/menetapkan/ 'stipulate'	103,296		/memendek/ 'shorten'	630		/memalukan/ 'embarrassing'	10,745
	Noun-like	/menyulitkan/ 'complicate'		15,256	/melebar/ 'widen'		11,856	/menghitam/ 'blackened'
		/memudahkan/ 'simplify'	64,621	/menyempit/ 'narrows'	3,355		/memutih/ 'turned white'	1,089
		/memperbarui/ 'update'	5,490	Direction	/memajukan/ 'advance'		32,226	/menguning/ 'turned yellow'
/membesar/ 'grow up'		11,878	/mengesampingkan/ 'rule out'		6,095	/mengemas/ 'become golden'	10,124	
/mengecil/ 'wane'		5,410	/membawahi/ 'under'		5,598	/melemas/ 'exanimate'	441	
/membaik/ 'improved'		31,174	/mengedepankan/ 'put forward'		25,630	/merapuh/ 'fragile'	71	
/memburuk/ 'worsened'		11,930	Localization	/mendekat/ 'come closer'	13,328	/menguat/ 'strengthen'	51,765	
/melunakkan/ 'accentuate'		12,276		/merapat/ 'huddle'	5,978	/melemah/ 'weakened'	43,849	
/memurahkan/ 'cheapen'		62	Origin	/menjauh/ 'avoid'	12,635	/meluas/ 'expand'	20,050	
/memahalkan/ 'make high'		29		/mengasingkan/ 'isolate'	1,416	/membaik/ 'improved'	31,174	
/memperbanyak/ 'increase'		14,027		/mengakrabkan/ 'familiarize'	1,449	/melucu/ 'crack a joke'	561	
/memendek/ 'shortened'		630	Spatial distribution	/memenuhi/ 'fulfil'	284,132	/meredup/ 'overcast'	2,658	
/menambahkan/ 'contribute'		252,002		/menyesaki/ 'to crowd'	508	/meredam/ 'muffled'	13,522	
/mengurangi/ 'reduce'		204,549	Form	/melingkar/ 'form a circle'	5,887	/melayu/ 'wither'	8,964	
/memberatkan/ 'incriminating'		14,902		/meruncing/ 'tapered'	2,094	/mengganas/ 'violent'	751	
/meringankan/ 'lighten up'		20,570		/menumpul/ 'become blunt'	34	/melarang/ 'forbid'	58,153	
TOTAL		1,303,055	TOTAL	TOTAL	457,176	TOTAL	527,898	

Lastly, the prefix /me(N)-/ also has a semantic function in indicating reciprocity and the changes in state or condition. By adding this prefix to a noun, one can create a verb that denotes a change in the state or condition of that noun. For instances as in the sentence (8a) and (8b), the verb /memeluk/ ‘to hug’ derives from the root /peluk/ ‘to be hugged.’ This verb shows the process of hugging each other. Additionally, the noun /beku/ ‘freeze’ can be transformed into the verb /membeku/ ‘turn into freeze’ by adding the /me(N)-/ prefix. This verb means ‘to change from a state of being unfreeze to a state of being freeze.’ This prefix usage allows for a more precise description of a change in state or condition, making it a valuable tool in Indonesian communication.

- (8) a. *Dara memeluk Anita, hatinya sedih sekali* (ILCC, 2013).
Dara.PROPN hug.VERB Anita.PROPN hati.NOUN nya.PS3 sad.ADJ sekali.ADV
‘Dara hugged Anita, her heart was very sad.’
- b. *Madu asli tidak membeku di kulkas* (ILCC, 2013)
Honey.NOUN real.ADJ not.PART membeku.VERB in.ADP refrigerator.NOUN
‘Real honey does not freeze in the refrigerator.’

In addition, the prefix /me(N)-/ can be used in language to form another type of verb for denoting emphatic and descriptive verbs. Firstly, it can be utilized to form emphatic verbs that emphasize the intensity or degree of the action. For instance, the adjective /besar/ ‘big’ can have prefixed with /me(N)-/ to form the verb /membesar/ ‘to enlarge’ as in sentence (9a). The subsequent use of the prefix /me(N)-/ is to create descriptive verbs that describe the appearance or state of something. By adding this prefix to an adjective or noun, one can create a verb that describes the state or appearance of that adjective or noun. For example, the adjective /kuning/ ‘yellow’ can be transformed into the verb /menguning/ ‘turned yellow’ (Σ -occurrence: 1,896) as in sentence (9b).

- (9) a. *Tapi kini gurita usahanya terus membesar* (ILCC, 2013).
But.ADV now.NOUN octopus.NOUN business.NOUN his/her.PS3 continues.ADV to enlarge.VERB
‘But now his corporate business continues to grow.’
- b. *Tubuh dan mata akan menguning* (ILCC, 2013).
Body.NOUN and.CONJ eyes.NOUN will.AUX turn.VERB yellow.NOUN/ADJ
‘The body and eyes will turn yellow.’

C. Syntactic Functions of Prefix /me(N)-/

Regarding syntactic functions, derived verbs with the prefix /me(N)-/ have syntactic functions influenced by their semantic meaning. In Indonesian, the prefix /me(N)-/ is adaptable and can be used for many syntactic functions. Some of the most common and distinctive syntactic functions of /me(N)-/ are form monovalent (29,18% having a mean value of 27,33), bivalent (48,40% having a mean value of 45,33) and trivalent (22,42% having a mean value of 21) (see Figure 7). Based on the correlation test (see Table 7), the study’s key findings reveal a clear pattern of mutual exclusivity between bivalent and trivalent verbs, with a solid negative correlation of -0.9977 between these two types. This indicates that verbs with two arguments are unlikely to co-occur with verbs requiring three. On the other hand, monovalent verbs display strong associations with both bivalent and trivalent verbs, suggesting a more complex relationship. The correlation coefficient of -0.9248 between monovalent and bivalent verbs suggests a robust negative association between these two verb types. In comparison, the correlation coefficient of 0.8967 between monovalent and trivalent verbs suggests a strong positive association between these two types. In short, verbs with one argument tend to have fewer instances of verbs with two arguments, and vice versa, while verbs with one argument are more likely to be found with verbs requiring three arguments (cf. Denistia & Baayen, 2022; Nugraha, 2024).

TABLE 7
CORRELATION TEST RESULTS ON THE SYNTACTIC FUNCTIONS INITIATED BY THE PREFIX /ME(N)-/ IN WORD STRUCTURE

	MONOVALENT	BIVALENT	TRIVALENT
MONOVALENT	1		
BIVALENT	-0,9248	1	
TRIVALENT	0,8967	-0,9977	1

Furthermore, the functions of language can be classified into six specific actions. These actions include transforming nouns into verbs, identifying the agent of a verb, specifying the object of a verb, denoting the instrument of the verb, indicating changes in the verb’s state or condition, and deriving adjectives that primarily function as possessive adjectives. In the following section, each of these functions will be explained in detail. First, forming verbs from nouns. In Indonesian, despite as the verb derivation affix, the prefix /me(N)-/ is frequently used to derive verbs from nouns. This is achieved by adding the prefix to the root form of the noun. To exemplify, take the noun /batu/ ‘rock,’ which can

have combined with /me(N)-/ to create the verb /membatu/ 'harden' (-occurrence: 31,991), signifying 'the act of remaining silent' as in sentence (10).

- (10) *Semuanya membatu melayani perasaan masing-masing* (ILCC, 2013).
 Everyone.ADV harden.VERB serve.VERB feeling.NOUN each.DET
 'Everyone is petrified of serving each other's feelings.'

TABLE 8
 THE TABULATION OF FREQUENCY OF PREFIX /ME(N)-/ IN THE NOUN-STEM CONSTRUCTIONS

Category I: Typological Aspects		Freq.1	Category II: Semantic Aspects		Freq.2	Category II: Syntactic Aspects		Freq.3
Concrete	/menggambar/ 'portray'	12,334	People	/merakyat/ 'popularize'	2,470	Verbal noun	/membatik/ 'make a batik'	3,519
	/memotret/ 'photograph'	9,213		/memasyarakat/ 'civilize'	1,237		/membubur/ 'mush'	10
	/mengecat/ 'paint'	2,004		/menua/ 'aging'	1,967		/menyurati/ 'write'	3,427
	/menari/ 'dance'	16,719		/memanusiakan/ 'humanize'	1,441		/menenun/ 'wave'	1,365
	/menimba/ 'draw'	9,121	Plants	/menguncup/ 'bumps'	153		/mematung/ 'sculpting'	1,047
	/menyendok/ 'spoon'	152		/merumput/ 'grazing'	4,407		/melantai/ 'to be listed'	1,465
	/menggaraji/ 'sawing'	379		/membuahkan/ 'yield'	20,522		/meminyaki/ 'oiling'	262
	/menggunting/ 'cut'	1,677		/mengakar/ 'toughten'	4,604		/menelurkan/ 'spawn'	4,254
/mencetak/ 'print'	104,585	Animals	/menggembala/ 'herding'	557	Mass noun	/menguangkan/ 'cashing'	211	
/menarasikan/ 'narrate'	201		/mencicit/ 'squeak'	128		/membungkus/ 'wrap'	4,282	
/mendebatkan/ 'debate'	153		/menernakkan/ 'raise'	43		/membahasakan/ 'speak'	406	
/mendiskusikan/ 'discuss'	11,267		/mengembik/ 'bleat'	140		/menyetrika/ 'ironing'	1,192	
Abstract	/menganalisis/ 'analyze'	29,266	Materials	/membatu/ 'petrified'	31,991	Inalienable noun	/mengepalai/ 'lead'	1,604
	/mengklasifikasi/ 'classify'	737		/membeku/ 'freeze'	3,848		/menguliti/ 'skinning'	567
	/mengelaborasi/ 'elaborate'	724		/menguap/ 'evaporate'	6,590		/menangani/ 'handle'	89,803
	/menjustifikasi/ 'justify'	1,091		/menggarami/ 'salt'	138		/memperistri/ 'marry a wife'	540
	/mewacanakan/ 'discuss'	1,805	Objects	/menelepon/ 'call'	6,655		/menemani/ 'accompany'	20,606
	/mempromosikan/ 'promote'	31,005		/merumahkan/ 'lay off'	832		/menjiwai/ 'animates'	2,199
	/melaut/ 'go to sea'	13,442		/membukukan/ 'to chronicle'	21,338		/menggereja/ 'active in church'	318
	/membumi/ 'grounded'	2,476		/menyekolahkan/ 'educationalize'	5,473		/mempidanakan/ 'convict'	358
Countable	/menempatkan/ 'put'	66,361	Qualities	/mendisiplinkan/ 'discipline'	1,360	Alienable noun	/menghasilkan/ 'produce'	227,463
	/menggurui/ 'patronize'	1,612		/memesona/ 'charming'	1,829		/memanen/ 'harvest'	3,963
	/membentuk/ 'form'	163,956		/memerdaya/ 'deceptive'	1,953		/menandai/ 'mark'	16,127
	/menggariskan/ 'outline'	1,378	Action	/merumuskan/ 'formulate'	23,811		/memarkahi/ 'mark-up'	7
	/menghasilkan/ 'produce'	227,463		/mempersoalkan/ 'question'	7,526		/mengelompokkan/ 'group'	3,126
	/menguntungkan/ 'profitable'	66,729		/memerankan/ 'act'	8,382		/mengelaskan/ 'clusterify'	9
Uncountable	/mengoreksi/ 'correct'	6,044	Processes	/memanggungkan/ 'stage'	121	Collective noun	/mendaftar/ 'register'	43,276
	/memerintah/ 'reign'	14,241		/menghukum/ 'punish'	14,971		/mengolngkan/ 'classify'	1,317
	/mendakwa/ 'accuse'	1,487		/memperkarakan/ 'litigate'	828		/menjeniskan/ 'separate'	10
	/mengetes/ 'test'	1,765		/mempermasalahkan/ 'concern'	7,475		/memaketkan/ 'package'	107
	TOTAL	799,387		TOTAL	182,790		TOTAL	432,840

Second, indicating the agent of a verb, a prefix called /me(N)-/ that can be added to a noun to create a verb. This prefix indicates the agent of the verb, which refers to the entity performing its action. When this prefix is added to a noun, it changes the noun into a verb that describes the action being performed by the noun. For example, take the sentence (11). In this sentence, the noun /batik/ 'batik' is being used as the agent of the verb /membatik/ 'to make a batik' (Σ -occurrence: 3,519) which means that the batik is acting as the verb. In other words, the prefix /me(N)-/ shifts the sentence's focus from the person acting on the object performing the action.

- (11) *Bahkan, ia juga piawai membatik* (ILCC, 2013).
In fact.SCONJ he/she.PRON also.ADV
'In fact, he is also skilled at making batik.'

Third, indicating the object of a verb, in some cases, the prefix /me(N)-/ can be used to indicate the object of a verb. This is usually done when the verb is transitive and requires an object. For example, in sentence (12), the noun /surat/ 'letter' functions as the object-intensifier of the verb /menyurati/ 'to write a letter' (Σ -occurrence: 3,427). Using the /me(N)-/ prefix helps clarify the relationship between the verb and its object in the sentence.

- (12) *Saya sudah menyurati Dewan Komisaris PTKA sepuluh hari yang lalu* (ILCC, 2013).
I.PRON already.AUX write.VERB Board.NOUN Commissioners.NOUN PTKA.PROPN ten.NUM days.NOUN
lalu.ADJ
'I wrote to the PTKA Board of Commissioners ten days ago.'

Fourth, indicating the instrument of a verb, in some cases, the prefix /me(N)-/ can also be used to indicate the instrument of a verb. The prefix /me(N)-/ can be used to indicate the instrument of a verb. This usage is typically reserved for intransitive verbs, which are verbs that do not require an object. For example, the sentence (13), where the word /timba/ 'bucket' functions as the instrument of the verb /menimba/ 'draw from a well' (Σ -occurrence: 9,121). In this context, the prefix /me(N)-/ is used to convey that the bucket is the tool used to specify act.

- (13) *Mereka seperti perempuan Samaria yang menimba air di sumur saat teriknya matahari* (ILCC, 2013)
They.PRON like.ADP woman.NOUN Samaritan.PROPN yang.CONJ drew.VERB water.NOUN di.CONJ
well.NOUN when.CONJ hot.VERB sun.NOUN
'They are like the Samaritan woman who drew water from a well when the sun was hot.'

Subsequently, indicating changes of state or condition. The Indonesian language allows the usage of the prefix /me(N)-/ to indicate changes of state or condition. This prefix can be used to convey the idea of a shift in the state of a noun due to some external factor. For instance, if we take the sentence (14), the noun /gereja/ 'church' is the cause of the change of state of the noun. In this case, the prefix /me(N)-/ indicates that the /gereja/ 'church' has become an action as in /menggereja/ 'active in church life' (Σ -occurrence: 318).

- (14) *Waktu itu hampir empat tahun aku lepas dari kehidupan menggereja* (ILCC, 2013).
Time.NOUN itu.DET almost.ADV four.NUM years.NOUN I.PS1 away.VERB from.ADP life.NOUN
churching.VERB
'At that time, I had been away from church life for almost four years.'

Moreover, the prefix /me(N)-/ in Indonesian language is often used to derive adjectives that function primarily as a form of possessive adjective. These derived adjectives are used to indicate ownership or a state of being. An example of the usage of such adjectives can be seen in the sentence (15), where the derived adjective /penting/ 'important' conveys the idea of possession, while the prefix /me(N)-/ serves to add emphasis and emphasis on the possession as in /mementingkan/ 'prioritize' (Σ -occurrence: 12,276).

- (15) *Dia selalu mementingkan anak buahnya terlebih dulu* (ILCC, 2013).
He/she.PS3 always.ADV prioritize.VERB subordinates.NOUN his.PS3 moreover.ADV firstly.ADV
'He always puts his subordinates first.'

V. CONCLUSION

This study applies corpus-based morphology to analyze the prefix /me(N)-/ in Indonesian affixation. Our analysis reveals that this affix is highly productive and versatile, expressing various semantic and syntactic concepts such as causation, reciprocity, instruments, reflexivity, and possession/state. The data indicate that /me(N)-/ exhibits a strong preference for verb formation, particularly in contexts involving physical actions and mental activities. Despite the analysis, our study has certain limitations. Our research was focused on the ILCC, which mainly covers formal and written language. Thus, future research should explore its usage in spoken Indonesian and informal contexts to gain a

more nuanced understanding of the distribution and functions of /me(N)-/ in everyday usage. Also, our analysis did not consider sociolinguistic factors that may influence the use and interpretation of /me(N)-/. Based on our findings, several avenues for future research can be explored. Firstly, the role of /me(N)-/ in discourse and pragmatics can be investigated to understand better how the prefix contributes to the overall meaning and context of sentences and utterances. Secondly, exploring the cognitive and processing mechanisms involved in understanding /me(N)-/-derived words can shed light on how our mental representation of the prefix and its semantic range influence our interpretation of derived words. Additionally, analyzing the diachronic development of /me(N)-/ in Indonesian can help us understand how the prefix's usage and meaning have evolved.

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