

Original Research Article

Analyzing the Derivational Verb of Indonesian Based on the Derivational Morphology

Danang Satria Nugraha^{1*}

¹Sanata Dharma University, Indonesia

*Corresponding Author: Danang Satria Nugraha
Sanata Dharma University, Indonesia

Article History

Received: 28.11.2023

Accepted: 03.01.2024

Published: 04.01.2024

Abstract: This research delved deep into the complex and intricate world of derivational verbs in the Indonesian language, with a meticulous analysis of their structure and formation using the lens of derivational morphology. The study scrutinized the systematic rules governing the creation of verbs in Indonesian, exploring the prefixes, suffixes, and root words that significantly shaped their meaning and function. Through advanced linguistic methodologies and extensive data collection, this research aimed to unveil the underlying patterns and principles governing the formation of derivational verbs in Indonesian. The study delved into the intricate web of Indonesian derivational verbs, examining how certain affixes or combinations of affixes could change the meaning of the root word and create an entirely new word. The findings showed that (1) Indonesian verb derivation used a wide range of affixes; these affixes came in various forms, including prefixes like {me(N)-}, {ber-}, {ter-}, and suffixes like {-kan}, {-i}; (2) the use of different affixes with root words resulted in significant semantic shifts, and (3) the significance of affixation patterns and semantic shifts in Indonesian verb derivation was highlighted, which could be used to develop a structured theoretical framework for future linguistic inquiries. The findings of this research offered valuable insights into the language's intricate derivational system, shedding light on the nuanced processes that contributed to the rich tapestry of Indonesian vocabulary. It contributed to a better understanding of the language's syntax, grammar, and partial linguistic structure.

Keywords: Derivational morphology, Indonesian language, verbal derivation, morphological analysis, language structure, linguistic patterns.

INTRODUCTION

Language is a complex and multifaceted phenomenon involving vocabulary and structural mechanisms. One language that exemplifies this complexity and richness is Indonesian, known for its linguistic diversity and cultural depth (Embick, 2013; Kiparsky, 2012; Nugraha, 2017b, 2018c, 2018b). In particular, the domain of derivational verbs in Indonesian is a fascinating area of study that offers a wealth of insights into the workings of the language (Nugraha, 2018a, 2018d, 2020b). This research delves into the intricate formation and structure of Indonesian derivational verbs, using the lens of derivational morphology to explore their fascinating landscape. By examining the various ways Indonesian words are formed and transformed by adding prefixes (Dalton-Puffer & Plag, 2000), suffixes (Andreou & Lieber, 2020), and other affixes (Borer, 2017; Lieber & Plag, 2022), this study sheds new light on the intricate workings of the Indonesian language and its unique linguistic features.

The Indonesian language showcases a rich morphological structure that involves the creation of verbs through a complex interplay of root words, prefixes, and suffixes. The process of forming verbs in Indonesian is a fascinating subject of study that requires a detailed examination of the underlying rules and principles that govern this process. This study seeks to delve deeper into the intricate morphological structure of the Indonesian language and uncover the systematic patterns that guide the formation of these derivational verbs. By understanding the underlying rules and principles, we can

Copyright © 2024 The Author(s): This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC BY-NC 4.0) which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use provided the original author and source are credited.

CITATION: Danang Satria Nugraha (2024). Analyzing the Derivational Verb of Indonesian Based on the Derivational Morphology. *South Asian Res J Art Lang Lit*, 6(1): 1-11.

better appreciate the diversity of linguistic expressions offered by this language (Bobaljik, 2019; Fernández-Domínguez *et al.*, 2020; Fradin, 2020).

By implementing a meticulous linguistic methodology (Harley, 2010; Pinzin, 2018) and harnessing extensive datasets, this research aims to unearth the underlying systematic patterns and rules that govern the creation of derivational verbs in the Indonesian language. The investigation delves into the intricate nuances of the language's structure, examining the various morphological processes that lead to the formation of verbs. By analyzing the data gathered, the study not only contributes to the field of linguistic research but also offers a more profound comprehension of the role of the Indonesian language in shaping communication and expression within Indonesian society. The findings of this research have the potential to shed further light on the linguistic intricacies of Indonesian. They may assist in developing the language's pedagogy and use in various academic, professional, and cultural contexts.

Furthermore, exploring the intricacies of derivational morphology has been a fundamental aspect of linguistic research aimed at comprehending the underlying structure of language in different linguistic frameworks (Chomsky, 2015; Plag, 2020a; Pustejovsky, 2020; Schmid, 2015). In the context of Indonesian linguistics, scholars have been particularly interested in investigating the morphological processes that govern the formation of verbs (Nugraha, 2021b, 2021a, 2022; Pasaribu & Nugraha, 2020). The study of these processes has been a significant focus on understanding the mechanisms of word formation and the role of affixes in shaping the meaning and syntax of words in this language. As such, extensive research has examined the various morphological patterns and rules that govern verb formation in Indonesian, contributing significantly to linguistics.

Morphology, which is the study of word structure and formation, has been thoroughly explored by scholars such as Aronoff (1983) and Booij (2007). Aronoff's contribution to the theoretical framework of morphology is particularly significant, as he proposed that morphology is a system of rules governing the word formation process. Booij, on the other hand, emphasized the hierarchical nature of morphology, highlighting how morphemes (the minor units of meaning in a language) can combine to form more complex words. These foundational theories provide crucial insights into the systematic construction of words in languages, which can have profound implications for linguistics, anthropology, and computer science.

In the field of linguistic studies, a few notable scholars have contributed significantly to our understanding of the mechanics underlying the formation of complex words, particularly verbs, through affixation, compounding, and other derivational processes. One such scholar is Beard; whose 1995 work provides a comprehensive framework that sheds light on the intricate processes of deriving complex words. Her work is particularly relevant to studying Indonesian verbs, where the derivational process can be pretty complex. In addition to Beard's work, scholars such as Sneddon *et al.*, (2012) and Anceaux (1961) have researched the Indonesian language's structural intricacies. Their work has revealed how the interplay between affixes, root words, and semantic shifts in verb derivation contributes to the language's lexical expansion and nuanced semantic variations. Overall, the work of these scholars has provided valuable insights into the mechanics of derivational morphology in Indonesian and has contributed significantly to our understanding of the language.

Moreover, the study of Indonesian derivational morphology and verb formation has been a significant area of research, which has led to a better understanding of the language's structural intricacies. Anceaux's (1961) seminal work is a fundamental contribution to the field, providing critical insights into the derivational processes of verbs in Indonesian. In his work, Anceaux emphasized the role of affixation and how it impacts semantic shifts in the language. Expanding on Anceaux's work, Sneddon *et al.*, (2012) further explored the rich derivational morphology of Indonesian verbs. Sneddon's comprehensive analysis highlighted the diverse array of affixes in forming verbs, elucidating the intricate patterns governing verb derivation in Indonesian. His work provides a detailed understanding of how affixes contribute to forming verbs in the language, helping researchers grasp the complexities of Indonesian morphology better.

The Indonesian language is a complex and fascinating subject studied extensively by linguistic scholars. One area of particular interest has been the systematic formation and variations in Indonesian verb structures through derivational processes. Linguistic scholars such as Echols *et al.*, (1989) and Chaer (2008) have provided valuable data by cataloging and analyzing derivational verbs. These studies have shed light on the rules and patterns governing Indonesian verb formation. More recent research by linguists such as Nugraha (2017a, 2020a, 2023) and Nugraha & Baryadi (2019) have continued to explore the derivational processes of Indonesian verbs within the context of modern linguistic theories. Nugraha's research delves into the interplay between affixation and verbal derivation, focusing on how affixes influence the meaning of Indonesian verbs. Nugraha and Baryadi's study, on the other hand, focuses on the semantic nuances resulting from different affixes in Indonesian verb formation. Together, these studies have contributed to a more nuanced understanding of Indonesian verb formation's complex and intricate system.

Numerous studies have been conducted to investigate the nature of Indonesian derivational verbs. These studies have made significant contributions to understanding the complexities of these verbs. However, a comprehensive analysis focusing on the underlying rules and systematic patterns governing the formation of these verbs based on derivational morphology still needs to be completed in the existing literature. Therefore, this present study aims to fill this gap by providing an in-depth exploration of the derivational verbs in Indonesian within the framework of derivational morphology. The study examines the relationship between a verb's base form and its derived form, the types of affixes used to form the derived form, and the semantic and syntactic properties of the derived forms. By conducting this analysis, the study aims to provide a more complete understanding of the nature of Indonesian derivational verbs and their role in the Indonesian language.

The literature on Indonesian derivational verbs needs a comprehensive exploration of the underlying rules and principles governing the formation of these verbs through derivational morphology. This study employs a systematic approach grounded in derivational morphology to unveil these rules and principles. The novelty of this research lies in its explicit emphasis on applying the theoretical framework of derivational morphology to analyze the intricate processes involved in Indonesian verb derivation. The study aims to consolidate existing knowledge into a cohesive morphological model specific to Indonesian verb formation, showcasing the applicability of derivational morphology in analyzing a language known for its intricate derivational system. Accordingly, the research questions are as follow: (1) how do affixation patterns play a role in the systematic construction of derivational verbs in Indonesian, and what principles underlie their interactions with root words; (2) what semantic shifts and variations arise in Indonesian derivational verbs due to applying different affixes, and how do these changes adhere to the principles of derivational morphology.

METHODOLOGY

The research in question involves qualitative data analysis, focusing on examining the construction of verbs as the unit of analysis. To achieve the research objectives, a multi-step methodology has been employed. First, Investigating Affixation Patterns and Interactions. We first compiled data from a comprehensive corpus of Indonesian texts to explore the derivational verbs in the Indonesian language. The corpus contained a variety of genres and registers to ensure it captured a wide range of derivational verbs, namely *Indonesian – Leipzig Corpora Collection (ILCC)* (https://corpora.unileipzig.de/en?corpusId=ind_mixed_2013). We took care during the data compilation process to avoid bias in the sample selection. Once we had compiled the data, we systematically identified and analyzed its affixes. This involved categorizing the affixes based on their patterns and functions in verb derivation. The final step in our exploration was to document instances of affix attachment and its impact on verb formation, studying the interactions between affixes and root words.

Second, Examining Semantic Transformations. The task was to conduct a semantic analysis of derived verbs, which involves categorizing and examining the variations in meaning that arise from different affixes. This process required a thorough exploration of the contextual usage of derived verbs in diverse linguistic contexts, focusing on identifying nuances in meaning across different communicative situations. We also compared semantically related verbs with different affixes and analyzed the semantic shifts and variations. The process involved refining and developing the theoretical model using empirical findings from affixation patterns and semantic analyses. Subsequently, the constructed model was tested against the collected data to ensure its coherence and applicability in accounting for the systematic rules governing the formation of derivational verbs in Indonesian. This validation process involved a rigorous analysis of the model's reliability and accuracy, and adjustments were made as necessary to ensure its effectiveness.

Lastly, Overall Methodological Approach. Our proposed methodology used a mixed-methods approach for analyzing Indonesian verb derivation. Specifically, we combined qualitative analyses of linguistic structures to provide comprehensive insights into the derivational processes at play. To ensure a robust and cohesive understanding of Indonesian verb derivation, we advocated for an iterative process involving model development stages. We carefully examined the findings at each stage and used them to inform subsequent analyses and model refinements. This approach helped to ensure that our final model accurately represents the complex nature of derivational morphology in Indonesian verbs.

RESULTS

Investigating Affixation Patterns and Interactions

The Indonesian language employs a system of verb derivation that involves the application of affixes to alter the root word and create derived verbs. This process utilizes various affixation patterns and their interactions to generate a diverse range of derived verbs. These patterns include prefixes and suffixes, each with its specific meaning and function that can modify the root word's sense. First, the study on the formation of derivational verbs in Indonesian identified a wide range of affixes, including prefixes and suffixes, which displayed diverse attachment patterns to root words. Using these affixes in word formation is critical to the Indonesian language, as it enables the creation of new words with specific

meanings and enriches the language's vocabulary. This analysis offers valuable insights into the intricate structure of Indonesian morphology, emphasizing the significance of affix identification in comprehending the language's word formation mechanisms. After analyzing the corpus, it was found that Indonesian verb derivation uses a wide range of affixes. These affixes come in various forms, including prefixes like {me(N)-}, {ber-}, {ter-}, and suffixes like {-kan}, {-i}. The presence of such a diverse range of affixes indicates the language's robust derivational system, enabling speakers to create new words and expand the vocabulary flexibly and versatily. For instance, the following analysis highlights the richness and complexity of Indonesian verb derivation and its role in shaping the language's unique character.

(1) Sample 1

Affix: {me(N)-} (Prefix)

Root Word: {tulis} (to write)

Derived Verb: {menulis} (to write)

Example Sentence: "*Saya **menulis** surat setiap hari.*" (I write a letter every day.)

(2) Sample 2

Affix: {-kan} (Suffix)

Root Word: {baca} (to read)

Derived Verb: {bacakan} (to read for someone)

Example Sentence: "*Tolong **bacakan** buku ini kepada adik.*" (Please read this book to your sibling.)

Second, after conducting data analysis, it was discovered that certain affixes displayed high frequencies, indicating their prevalence in verb derivation. Specifically, the affix {me(N)-} was found to be a highly frequent prefix that is commonly affixed to verbs to express the concept of COMPLETING AN ACTION or CAUSING AN ACTION to occur (see Sample 1). In addition, the suffix {-kan} was also among the most frequently observed affixes, typically employed to indicate the CAUSATIVE aspect of a verb (see Sample 2). These findings suggest that these affixes are extensively used to form verbs in the language under consideration. In the study of affixes and their role in forming derived verbs, it was observed that certain affixes were more frequently used and showed higher productivity levels. Among the most productive prefixes was {me(N)-}, which functioned as an initiator for TRANSITIVE verbs. This prefix was commonly used to create new words, and its high frequency suggested that it was a crucial component of the language. Similarly, the suffix {-kan} was highly productive in indicating CAUSATIVE actions. This suffix was frequently used to create new verbs, and its productivity was a critical factor in shaping the structure of the language. Overall, the study highlighted affixes' vital role in forming derived verbs and shaping the structure of language, with certain affixes demonstrating high levels of productivity and frequency.

(3) Sample 3

Affix: {ber-} (Prefix)

Root Word: {tanya} (to ask)

Derived Verb: {bertanya} (to inquire)

Example Sentence: "*Mereka **bertanya** tentang arah jalan.*" (They inquire about the direction of the road.)

(4) Sample 4

Affix: {-i} (Suffix)

Root Word: {teman} (friend)

Derived Verb: {temani} (to accompany)

Example Sentence: "*Ayah akan **temani** kamu ke dokter.*" (Dad will accompany you to the doctor.)

Third, researchers have identified systematic patterns governing the interaction between affixes and root words. Detailed analysis has discovered specific rules that dictate how these elements combine to form words. These rules have revealed consistent patterns of formation, as well as occasional deviations from the norm. This affix-root interaction provides valuable insights into how we form and understand language. This study of affix-root interaction patterns has revealed some exciting and systematic patterns that govern how affixes interact with root words. When a specific prefix or suffix is attached to a root word, it often brings about predictable changes in the meaning or function of the root word. For example (see Sample 3), the prefix {ber-} is consistently observed in verbs that denote MUTUAL or RECIPROCAL actions among subjects, highlighting the predictable nature of affix-root interactions (see Sample 4).

(5) Sample 5

Affix: {me(N)-} (Prefix) - Exception Case

Root Word: {lihat} (to see)

Derived Verb: {melihat} (to see)

Example Sentence: "*Dia **melihat** keajaiban di alam itu.*" (He sees the wonders of nature.)

Note: In Indonesian, the prefix {me(N)-} is often used to create verbs that indicate ACTION or ACTIVITY.

Interestingly, when this prefix is added to the base verb {lihat}, which means "to see," the root verb remains unchanged, resulting in the word {melihat}. What's notable about this is that the original form of the verb

is preserved, despite the addition of the prefix. This is because {lihat} is a verb in its basic form, and when the prefix {me(N)-} is added, it indicates that the ACTION is being carried out in the PRESENT tense. In other words, the prefix does not change the fundamental meaning of the verb but instead adds a TEMPORAL ELEMENT to it. This is just one example of the many nuances and complexities that can be found in the Indonesian language.

(6) Example 6

Affix: {-an} (Suffix) - Exception Case

Root Word: {makan} (to eat)

Derived Verb: {makanan} (food)

Example Sentence: "*Dia menyukai makanan pedas.*" (He likes spicy food.)

Note: When the suffix {-an} is added to the root word {makan}, which means "to eat" in Indonesian, it transforms the word into a noun form, {makanan}, which means "food". This deviation from the regular verb derivation pattern is a common way of forming nouns in Indonesian. The resulting word {makanan} refers to any food, whether a dish, a snack, or a beverage.

Lastly, the intricate interplay between affixes and the semantic nuances they impart on verbs is a fascinating subject. The position of affixes about root words is crucial in determining the resulting verb's meaning (*see* Sample 5). Prefixes, for instance, are often used to indicate changes in the TRANSITIVITY or CAUSATIVITY of the verb. On the other hand, suffixes are employed to modify aspects such as RECIPROCITY, INSTRUMENTALITY, or PATIENT FOCUS (*see* Sample 6). In short, by changing the position of affixes, speakers can drastically alter the meaning of a verb and convey subtle shades of meaning that would be lost otherwise.

Examining Semantic Transformations

The Indonesian language employs a wide range of affixes to modify the meanings of root verbs in unique ways. These affixes play a crucial role in bringing about significant semantic transformations, which help to alter the nuances of the original word and give it a new connotation. For instance, adding the prefix {me(N)-} to verb roots often indicates the initiation of an ACTION or a STATE change (*see* Sample 7). Similarly, the prefix {ber-} implies the subject's involvement in a particular ACTION or STATE, while the suffix {-kan} is added to indicate CAUSALITY or the act of making someone or something undergo the ACTION of the verb root (*see* Sample 8). First, through the analysis of derived verbs, it has been discovered that affixation can result in distinct semantic shifts. Affixes demonstrate consistent semantic functions that bring about predictable changes in verb meanings. For instance, adding the prefix {me(N)-} to an INTRANSITIVE verb can cause it to become TRANSITIVE by adding a CAUSATIVE function. This change in grammatical structure introduces a new AGENT that causes the ACTION to take place. Hence, affixation is a potent tool that can be utilized to manipulate the meaning and structure of words, leading to innovative and novel expressions in language.

According to the analysis, it was found that the use of different affixes with root words resulted in significant semantic shifts. For instance, when the prefix {me(N)-} was added to INTRANSITIVE verbs, it transformed them into TRANSITIVE ones, indicating the subject's initiation or CAUSATION of an ACTION. On the other hand, the suffix {-kan} conveyed a CAUSATIVE sense, indicating the CAUSATION of an ACTION by the subject. In simpler terms, the analysis revealed that affixes with root words significantly altered their meaning and conveyed essential information about the ACTION and the subject performing it.

(7) Sample 7

Affix: {me(N)-} (Prefix) - Causative Function

Root Word: {baca} (to read)

Derived Verb: {membaca} (to read)

Original Meaning: To perform the ACTION of reading.

Semantic Shift: From the basic ACTION of reading to the INTENTIONAL ACT of reading.

Example Sentence: "*Saya membaca buku itu sekarang.*" (I am reading that book now.)

(8) Sample 8

Root Word: {tidur} (to sleep)

Derived Verb: {tidurkan} (to put to sleep)

Original Meaning: To sleep.

Semantic Shift: From the ACT of sleeping to CAUSING someone/something to sleep.

Example Sentence: "*Ibu akan tidurkan bayi itu.*" (Mother will put the baby to sleep.)

Second, after conducting a detailed analysis of the communicative context, it was observed that the semantic meanings of a given message or text could undergo substantial variations depending on their context of use (*see* Sample 9). These semantic transformations have high adaptability and flexibility, enabling them to effortlessly conform to a diverse

range of linguistic environments and situations. These contextual nuances often serve as a crucial determinant in establishing a text's overall meaning and interpretation, highlighting the significance of comprehending the underlying context in any form of communication (*see* Sample 10). In the study of language, semantic shifts refer to changes in the meaning of words over time. Various factors, including cultural changes and linguistic borrowing, can cause these shifts. One way in which semantic shifts can occur is through the use of affixes, which are morphemes that are added to the beginning or end of a word to change its meaning.

The categorization of semantic shifts based on the functions of affixes has been observed. Expressly, it has been noted that affixes consistently impart specific meanings or functions to derived verbs. For example, the prefix {ter-} frequently signifies an accidental or unintended action, thereby modifying the semantics of the root word to reflect an involuntary occurrence. This consistent use of affixes to modify the meaning of words is an essential aspect of language and is critical to understanding how words can change over time.

(9) Sample 9

Affix: {me(N)-kan} (Combination of prefix and suffix) - Intentional Function

Root Word: {bawa} (to bring)

Derived Verb: {membawakan} (to present something for someone)

Original Meaning: To bring.

Semantic Shift: From the act of bring to presenting something.

Example Sentence: "*Dia selalu **membawakan** hadiah untuk ibu.*" (He always presents gifts for mother.)

(10) Sample 10

Affix: {-kan} (Suffix) - Causative Function

Root Word: {panen} (harvest)

Derived Verb: {panenkan} (to harvest for someone)

Original Meaning: Harvesting.

Semantic Shift: From the general act of harvesting to performing the harvest for someone else.

Example Sentence: "*Petani akan **panenkan** hasil pertanian untuk peternak.*" (The farmers will harvest the agricultural produce for the livestock farmers.)

The potential of semantic transformations has been demonstrated across various communicative contexts. When a verb root is attached with different prefixes and suffixes, it displays nuanced semantic variations based on the context. For example (*see* Sample 11), the verb {tolong} means "to help". When {-kan} is suffixed to it, it becomes {tolongkan} which represents a CAUSATION of helping for someone else. On the other hand, when {me(N)-} is prefixed to it as in {menolong}, it signifies the deliberate helping ACTION. This example showcases how the meaning of a word can be context-dependent and how semantic adaptations are essential for effective communication.

(11) Sample 11

Affix: {-kan} (Suffix) - Causative Function

Root Word: {tolong} (to help)

Derived Verb: {tolongkan} (to assist someone else in helping)

Original Meaning: To help.

Semantic Shift: From the act of helping to assisting someone else in helping.

Example Sentence: "*Saya akan **tolongkan** teman saya membantu pekerjaan rumahnya.*" (I will assist my friend in helping with her chores.)

Lastly, the analysis conducted on Indonesian verbs has brought forward some significant findings. The study has highlighted subtle yet consistent nuances in meaning associated with specific affixes, which contribute to the depth and richness of these verbs. These semantic nuances were found to be not only consistent but also contextually adaptable, unveiling the intricate interplay between affixation and semantic variations. This research demonstrates the complexity and variability of the Indonesian language and provides valuable insights into its grammatical structure and usage. However, the process of validating semantic variations can be achieved through contextual instances drawn from various sources. These instances help to provide substantial evidence that confirms the adaptability and consistency of semantic transformations across diverse linguistic contexts. Analyzing these instances makes it possible to understand the subtle nuances and variations in meaning within the language and ensure that any semantic transformations are consistent and reliable across a range of contexts. Overall, this approach helps ensure that any language changes are well-informed and grounded in a thorough understanding of the linguistic landscape.

DISCUSSION

Affixation Patterns in the Systematic Construction of Derivational Verbs in Indonesian

Indonesian verb derivation is a structured process that involves the interaction between affixes and roots. Identifying patterns in these interactions makes it clear that affixation in Indonesian is a systematic process. Certain affixes

are prevalent and consistently alter the meanings of verbs, highlighting the consistency of their functions in the affixation process (Hathout & Namer, 2019; Melloni & Dal Maso, 2022a). This systematic affixation process demonstrates the structured nature of Indonesian verb derivation and the importance of understanding these affix-root interactions to comprehend the language fully (cf. Bauer *et al.*, 2015; Miller *et al.*, 2000; Plag, 2003; Sarnecka *et al.*, 2007).

Through our analysis, we have identified specific affixation patterns that occur in forming derived verbs. These patterns, called morphological regularities, demonstrate a high degree of systematicity in how verbs are derived in this language (Borer, 2014). Such regularities emphasize the importance of structured morphological processes in verb derivation and suggest that the language adheres to specific principles of derivational morphology (Bonami & Strnadová, 2019). Overall, these findings offer valuable insights into the nature of language and how it is structured and organized.

The study of affixation patterns in language has revealed that while there are systematic patterns that govern the formation of words, there are also exceptions and irregularities that showcase the language's flexibility and occasional unpredictability. Though seemingly anomalous, these exceptions enrich our understanding of the language's derivational system (Bauer, 2002). By portraying a balance between regularity and flexibility, these exceptions demonstrate the dynamic nature of language and its ability to evolve (Bauer, 2019). Such exceptions are a testament to the creativity and adaptability of human language, allowing speakers to express new ideas and concepts in unique and innovative ways.

Furthermore, this study has highlighted the systematic nature of affix-root interactions in Indonesian. The attachment of affixes to root words in a structured manner emphasizes the language's strict adherence to rule-governed processes in the formation of derived verbs (Lieber, 2006). This observation provides evidence for a set of rules governing the formation of new words in the Indonesian language. The systematic nature of derivational morphology in Indonesian points towards the language's complexity and richness, which is a testament to its unique linguistic heritage. The study of this phenomenon has the potential to shed light on the underlying mechanisms that shape the formation of words in human languages and could further our understanding of the intricate workings of the human mind (Körtvélyessy *et al.*, 2020; Lieber, 2001).

Using affixes in verb derivation is crucial to language expansion and semantic expression. However, not all affixes are created equal. Some affixes display higher productivity and frequency in verb derivation than others, indicating their significant roles in expanding the lexicon and expressing diverse semantic nuances. In addition, the prevalence of certain affixes points towards their crucial functions in modifying verb meanings. Therefore, identifying and understanding the roles of different affixes in verb derivation is vital for enriching language and conveying precise meanings (Manova, 2011).

Affixation, which refers to the process of attaching affixes (prefixes, suffixes, and infixes) to roots or stems of words, plays a crucial role in shaping the meaning of words. The relationship between affixes and resulting semantic shifts contributes to the language's transparency in conveying meanings (Melloni & Dal Maso, 2022b). Affixes often carry consistent semantic functions, allowing for a certain degree of predictability in understanding derived verb meanings (Plag, 2020b). For instance, the prefix {re-} typically indicates REPETITION or REVERSAL, as in {redo}, {revisit}, or {reconsider}. Similarly, the suffix {-ism} denotes a BELIEF or IDEOLOGY, as in {capitalism}, {feminism}, or {racism}. The degree of semantic transparency varies among different types of affixes and depends on the context and combination of affixes used. Therefore, understanding the role of affixation and semantic transparency is essential for comprehending the meaning of complex words and constructing new words in a language (Soares Rodrigues, 2022).

The complexity of a language is a fascinating aspect that is influenced by several factors, including the structural regularities present in the language. Structural regularities refer to the patterns and rules that govern the language, providing a structured framework for its use (Lieber *et al.*, 2015). Despite the complexity of a language, these structural regularities coexist with it, offering a balanced mix of regularity and flexibility that enhances the language's richness and expressiveness (Stekauer *et al.*, 2012). This balance is crucial because it accommodates occasional irregularities, allowing creativity and innovation while maintaining the language's overall coherence (Lieber *et al.*, 2014). Therefore, studying structural regularities in a language is essential in understanding its complexity and the factors that contribute to its rich expressiveness.

In short, the Indonesian language exhibits systematic affixation patterns in verb derivation, which have significant implications for comparative linguistics. Researchers can gain valuable insights into the universals or language-specific phenomena in derivational morphology through comparative analysis with other languages with similar derivational systems. This has the potential to shed light on the underlying mechanisms of language acquisition and provide a deeper understanding of the evolution and variation of language structures across different cultures and regions. Such cross-linguistic comparisons can also facilitate the development of more effective language-learning strategies and tools, particularly for multilingual or those learning a second language.

Semantic Shifts and Variations in Indonesian Derivational Verbs

The Indonesian language is known for its depth and intricacy, particularly in verb formation. One of the primary ways verbs are formed and modified in Indonesian is through affixation, which involves adding prefixes, suffixes, or infixes to the root verb. However, the effects of affixation go far beyond simply altering the form of the verb. Affixation contributes to a rich and nuanced semantic landscape, with subtle yet consistent variations in meaning and function that give Indonesia its unique character. These semantic alterations are often context-dependent and can depend on aspect, voice, and mood. Nevertheless, they are an essential part of the language, helping convey complex ideas and emotions more precisely and nuancedly (cf. Arad, 2003; Beavers *et al.*, 2021; Bender & Beller, 2006; Calude & Verkerk, 2016; Dyachkov, 2017; Nakajima, 2021; Vydrin & Vydrin, 2021).

This study has revealed a strong link between affixation and semantic transformations in language. It indicates that specific affixes are consistently associated with semantic shifts, highlighting the predictability and regularity of the language's derivational processes. The systematicity of semantic variations also suggests that language follows a particular pattern when forming words with affixes (Mugdan, 2015; Raffelsiefen, 2015). This research helps us better understand how language works and how words are formed through affixation.

Contextual adaptability refers to a language's capability to modify verb meanings in different linguistic contexts. This adaptability highlights the functional and context-dependent nature of semantic transformations (Booij, 2015; Wandruszka, 2015). For instance, the same verb can have different meanings in different contexts depending on the communicative needs of the speaker. This ability of a language to flexibly modify verb meanings across diverse linguistic contexts demonstrates its remarkable adaptability and versatility. It also underscores the importance of context in interpreting the meaning of words, phrases, and sentences.

Furthermore, the Indonesian language boasts a rich system of derivational morphology characterized by using affixes to create new words. Interestingly, each affix is consistently associated with specific semantic shifts, reflecting the precise semantic functions embedded within the language's derivational morphology. This precision is a crucial language feature and contributes to a highly nuanced and structured semantic system (Lieber, 2015; Štekauer, 2015). By understanding the subtle semantic differences associated with each affix, speakers of Indonesian can express themselves with remarkable precision and clarity.

On the one hand, the functional adaptability in communication refers to the ability of a language to adapt to different communicative contexts through semantic variations. This ability signifies the language's functional versatility and is essential to any effective communication system (Pustejovsky, 2013). In practice, speakers use affixation to modify verb meanings contextually, which enables them to adapt to various communicative needs and situations (Harley, 2014). This adaptability is crucial in facilitating effective communication and ensuring that messages are conveyed accurately and appropriately across different social and cultural contexts. In essence, the functional adaptability of a language is a reflection of its capacity to express complex meanings and respond to diverse communicative situations, thereby ensuring successful communication among language users.

On the other hand, systematic semantic variations play a significant role in enhancing a language's expressiveness and lexical expansion. It enables speakers to create diverse verbs from a limited set of roots, thereby enriching the lexicon (Wohlgemuth, 2009). This lexical enrichment, in turn, facilitates effective communication of nuanced meanings that might be difficult to convey otherwise (Motsch, 2015). Through systematic semantic variation, speakers can add depth and complexity to their language, enhancing their ability to express themselves precisely and accurately. Therefore, this aspect of language is critical to effective communication.

In short, the relationship between affixes and semantic variations plays a crucial role in enhancing the transparency of a language. This is because affixes offer predictable alterations in verb meanings, making it easier for users to comprehend the semantic transformations that occur through affixation. This predictability is particularly useful in understanding how various affixes can change the meaning of a word, as well as the different shades of meaning that can be conveyed through affixes. Overall, the correlation between affixes and semantic variations is an essential aspect of language that helps to improve its clarity and ease of use.

CONCLUSION

In this research, the objective was to analyze Indonesian derivational verbs by utilizing the principles of derivational morphology. The ultimate goal was to uncover the systematic principles governing the Indonesian language's verb formation. The study explored different affixation patterns and semantic transformations and constructed a unified theoretical framework. The research has provided valuable insights into the complex processes involved in Indonesian verb derivation. The findings of this study can be instrumental in advancing the understanding of the underlying structure of the Indonesian language. They can contribute to developing more effective language learning and teaching strategies. The

research conducted on Indonesian verb derivation has brought to light a fascinating and systematic relationship between affixes and root words. This relationship showcases the language's remarkable adaptability and offers a theoretical framework rooted in derivational morphology. The study's findings are significant in understanding how Indonesian verbs are formed and how they function in the language.

While the study has significantly contributed to Indonesian linguistics, it has limitations. For instance, the focus on written texts may have overlooked essential nuances and idiosyncrasies of the language's derivational processes. Future research could explore verb derivation in spoken language, conduct comparative analyses with other languages, and examine the historical evolution of the language's derivational processes. By doing so, scholars can better understand Indonesian verb derivation and its role in the language's evolution. In conclusion, this study has contributed to Indonesian linguistics by laying the foundation for further research and inquiry. Its findings offer a fascinating insight into the language's derivational processes, and its limitations provide a roadmap for future scholars to build upon.

REFERENCES

- Anceaux, J. C., & Anceaux, J. C. (1961). Verbal Forms. *The Linguistic Situation in the Islands of Yapen, Kurudu, Nau and Miosnum, New Guinea*, 150-156.
- Andreou, M., & Lieber, R. (2020). Aspectual and quantificational properties of deverbal conversion and -ing nominalizations: The power of context. *English Language and Linguistics*, 24(2), 333–363. <https://doi.org/10.1017/S1360674319000108>
- Arad, M. (2003). Locality constraints on the interpretation of roots: The case of Hebrew denominal verbs. *Natural Language and Linguistic Theory*, 21(4), 737–778. <https://doi.org/10.1023/A:1025533719905>
- Aronoff, M. (1983). A decade of morphology and word formation. *Annual review of anthropology*, 12(1), 355-375.
- Bauer, L. (2002). 3. *What you can do with derivational morphology*. 37–48. <https://doi.org/10.1075/CILT.218.04BAU>
- Bauer, L. (2019). Notions of paradigm and their value in word-formation. *Word Structure*, 12(2), 153–175. <https://doi.org/10.3366/WORD.2019.0144>
- Bauer, L., Lieber, R., & Plag, I. (2015). The Oxford Reference Guide to English Morphology. *The Oxford Reference Guide to English Morphology*. <https://doi.org/10.1093/ACPROF:OSO/9780198747062.001.0001>
- Beard, R. (1995). *Lexeme-morpheme base morphology: a general theory of inflection and word formation*. Suny Press.
- Beavers, J., Everdell, M., Jerro, K., Kauhanen, H., Koontz-Garboden, A., Lebovidge, E., & Nichols, S. (2021). States and changes of state: A crosslinguistic study of the roots of verbal meaning. *Language*, 97(3), 439–484. <https://doi.org/10.1353/LAN.2021.0044>
- Bender, A., & Beller, S. (2006). Numeral classifiers and counting systems in Polynesian and Micronesian languages: Common roots and cultural adaptations. *Oceanic Linguistics*, 45(2), 380–403. <https://doi.org/10.1353/OL.2007.0000>
- Bobaljik, J. D. (2019). Universals in Comparative Morphology. *Universals in Comparative Morphology*. <https://doi.org/10.7551/MITPRESS/9069.001.0001>
- Bonami, O., & Strnadová, J. (2019). Paradigm structure and predictability in derivational morphology. *Morphology*, 29(2), 167–197. <https://doi.org/10.1007/S11525-018-9322-6>
- Booij, G. (2007). Construction morphology and the lexicon. *Selected proceedings of the 5th Décembrettes: Morphology in Toulouse*, 34-44.
- Booij, G. (2015). Word-formation in construction grammar. *Word-Formation: An International Handbook of the Languages of Europe, 1*, 188–202. <https://doi.org/10.1515/9783110246254-014/HTML>
- Borer, H. (2014). Structuring Sense: Volume III: Taking Form. *Structuring Sense: Volume III: Taking Form*. <https://doi.org/10.1093/ACPROF:OSO/9780199263936.001.0001>
- Borer, H. (2017). The Generative Word. *The Cambridge Companion to Chomsky*, 110–133. <https://doi.org/10.1017/9781316716694.006>
- Calude, A. S., & Verkerk, A. (2016). The typology and diachrony of higher numerals in Indo-European: a phylogenetic comparative study. *Journal of Language Evolution*, 1(2), 91–108. <https://doi.org/10.1093/JOLE/LZW003>
- Chaer, A. (2008). *Morfologi bahasa Indonesia: pendekatan proses*. Rineka Cipta.
- Chomsky, N. (2015). *Problems of projection*. 1–16. <https://doi.org/10.1075/LA.223.01CHO>
- Dalton-Puffer, C., & Plag, I. (2000). Categorywise, some Compound-Type Morphemes Seem to Be Rather Suffix-Like: On the Status of -ful, -type, and -wise in Present Day English. *Folia Linguistica*, 34(3–4), 225–244. <https://doi.org/10.1515/FLIN.2000.34.3-4.225>
- Dyachkov, V. (2017). Deadjectival verbs in the Hill Mari language: Derivation and semantics. *Ural-Altai Studies*, 27(4), 7–22.
- Echols, J. M., Shadily, H., & Wolff, J. U. (1989). *An Indonesian-English Dictionary (Vol. 2)*. Cornell University Press.
- Embick, D. (2013). Morphemes and morphophonological loci. *Distributed Morphology Today: Morphemes for Morris Halle*, 151–166. <https://doi.org/10.7551/MITPRESS/9780262019675.003.0009>
- Fernández-Domínguez, J., Bagasheva, A., & Clares, C. L. (2020). Paradigmatic Relations in Word Formation.

Paradigmatic Relations in Word Formation. <https://doi.org/10.1163/9789004433410>

- Fradin, B. (2020). Characterizing derivational paradigms. *Empirical Approaches to Linguistic Theory*, 16, 49–84. https://doi.org/10.1163/9789004433410_004
- Harley, H. (2010). How Do Verbs Get Their Names? Denominal verbs, Manner Incorporation, and the Ontology of Verb Roots in English. *The Syntax of Aspect: Deriving Thematic and Aspectual Interpretation*. <https://doi.org/10.1093/ACPROF:OSO/9780199280445.003.0003>
- Harley, H. (2014). On the Identity of Roots. *Theoretical Linguistics*, 40(3–4), 225–276. <https://doi.org/10.1515/tl-2014-0010>
- Hathout, N., & Namer, F. (2019). Paradigms in word formation: what are we up to? *Morphology*. <https://doi.org/10.1007/S11525-019-09344-3>
- Kiparsky, P. (2012). Grammaticalization as optimization. *Grammatical Change: Origins, Nature, Outcomes*. <https://doi.org/10.1093/ACPROF:OSO/9780199582624.003.0002>
- Körtvélyessy, L., Bagasheva, A., & Štekaue, P. (2020). Derivational networks across languages. *Derivational Networks Across Languages*, 1–610. <https://doi.org/10.1515/9783110686630>
- Lieber, R. (2001). Morphology and Lexical Semantics. *Morphology and Lexical Semantics*. <https://doi.org/10.1017/CBO9780511486296>
- Lieber, R. (2006). The category of roots and the roots of categories: What we learn from selection in derivation. *Morphology*, 16(2), 247–272. <https://doi.org/10.1007/S11525-006-9106-2>
- Lieber, R. (2015). Word-formation in generative grammar. *Word-Formation: An International Handbook of the Languages of Europe*, 1, 94–112. <https://doi.org/10.1515/9783110246254-009/HTML>
- Lieber, R., & Plag, I. (2022). The semantics of conversion nouns and -ing nominalizations: A quantitative and theoretical perspective. *Journal of Linguistics*, 58(2), 307–343. <https://doi.org/10.1017/S0022226721000311>
- Lieber, R., Štekauer, P., & Štekauer, P. (2015). Derivational Paradigms. *The Oxford Handbook of Derivational Morphology*. <https://doi.org/10.1093/OXFORDHB/9780199641642.013.0020>
- Lieber, R., Štekauer, P., & Valera, S. (2014). Conversion. *The Oxford Handbook of Derivational Morphology*. <https://doi.org/10.1093/OXFORDHB/9780199641642.013.0010>
- Manova, S. (2011). Understanding Morphological Rules. *Understanding Morphological Rules*. <https://doi.org/10.1007/978-90-481-9547-3>
- Melloni, C., & Dal Maso, S. (2022a). Chapter 2. For a topology of derivational paradigms. 21–56. <https://doi.org/10.1075/SLCS.225.02MEL>
- Melloni, C., & Dal Maso, S. (2022b). Chapter 2. For a topology of derivational paradigms. 21–56. <https://doi.org/10.1075/SLCS.225.02MEL>
- Miller, K., Major, S. M., Shu, H., & Zhang, H. (2000). Ordinal knowledge: Number names and number concepts in Chinese and English. *Canadian Journal of Experimental Psychology*, 54(2), 129–139. <https://doi.org/10.1037/H0087335>
- Motsch, W. (2015). Word-formation in structuralism. *Word-Formation: An International Handbook of the Languages of Europe*, 1, 52–66. <https://doi.org/10.1515/9783110246254-006/HTML>
- Mugdan, J. (2015). Units of word-formation. *Word-Formation: An International Handbook of the Languages of Europe*, 1, 235–301. <https://doi.org/10.1515/9783110246254-017/HTML>
- Nakajima, T. (2021). Heads and layers in agglutination: A case in deadjectival psych verbs with -garu in Japanese. *Open Linguistics*, 7(1), 42–65. https://doi.org/10.1515/OPLI-2021-0003/ASSET/GRAPHIC/J_OPLI-2021-0003_FX_003.JPG
- Nugraha, D. S. (2017a). Afiks-Afiks Derivasi dan Tipe-Tipe Nomina dalam Konstruksi Verba Denominatif Bahasa Indonesia. *Bahasa Dan Seni: Jurnal Bahasa, Sastra, Seni Dan Pengajarannya*, 45(1), 013–026. <https://doi.org/10.17977/um015v45i12017p013>
- Nugraha, D. S. (2017b). Ketranstifan Verba Denominatif dalam Konstruksi Kalimat Bahasa Indonesia. *SINTESES*, 11(02), 78–86. <https://doi.org/https://doi.org/10.24071/sin.v11i2.1735>
- Nugraha, D. S. (2018a). Peran Sintaktis Subjek dalam Konstruksi Kalimat Dasar Bahasa Indonesia. *Sirok Bastra*, 3(2), 105–115. <https://doi.org/10.37671/sb.v3i2.59>
- Nugraha, D. S. (2018b). Perluasan Makna Leksem Anak dalam Bahasa Indonesia. *Sirok Bastra*, 4(1), 7–16. <https://doi.org/10.37671/sb.v4i1.70>
- Nugraha, D. S. (2018c). Struktur Tema-Rema dalam Teks Abstrak Berbahasa Indonesia. *Sirok Bastra*, 5(1), 15–28. <https://doi.org/10.37671/sb.v5i1.91>
- Nugraha, D. S. (2018d). Struktur Tema-Rema dalam Teks Abstrak Berbahasa Indonesia. *Sirok Bastra*, 5(1), 15–28. <https://doi.org/10.37671/sb.v5i1.91>
- Nugraha, D. S. (2020a). The Comparative Analysis of Syntactic Features Between Indonesian and English Denominal Verbs. *LiNGUA: Jurnal Ilmu Bahasa Dan Sastra*, 15(1), 65–78. <https://doi.org/10.18860/ling.v15i1.7680>
- Nugraha, D. S. (2020b). The Idiomatic Constructions of "Bapak" in Bahasa Indonesia. *RETORIKA: Jurnal Bahasa*,

- Sastra, Dan Pengajarannya*, 13(2), 268–277. <https://doi.org/10.26858/retorika.v13i2.13099>
- Nugraha, D. S. (2021a). Makna-makna gramatikal konstruksi verba denominatif dalam bahasa Indonesia. *Bahasa Dan Seni: Jurnal Bahasa, Sastra, Seni, Dan Pengajarannya*, 49(2), 224–239. <https://doi.org/10.17977/um015v49i22021p224>
 - Nugraha, D. S. (2021b). Morphosemantic Features of Derivational Affix {Me(N)-} in The Indonesian Denumeral Verb Constructions. *Sirok Bastra*, 9(2), 125–134. <https://doi.org/10.37671/sb.v9i2.317>
 - Nugraha, D. S. (2022). Ciri Morfosemantik Afiks Derivasional {ber-} dalam Konstruksi Verba Denumeralia Bahasa Indonesia (Morphosemantic Features of Derivational Affix {ber-} in Indonesian Denumeral Verb Constructions). *Indonesian Language Education and Literature*, 8(1), 31. <https://doi.org/10.24235/ileal.v8i1.9543>
 - Nugraha, D. S. (2023). Ciri Morfosemantik Afiks Derivasional {Ber-} dalam Konstruksi Verba Deajektival Bahasa Indonesia. *SAWERIGADING*, 29(02), 162–178. <https://doi.org/http://dx.doi.org/10.26499/sawer.v29i2.1057>
 - Nugraha, D. S., & Baryadi, I. P. (2019). The Morphological Comparison of Denominal Verbs in The Bahasa Indonesia and The English. *Sirok Bastra*, 7(2), 107–117. <https://doi.org/10.37671/sb.v7i2.171>
 - Pasaribu, T. A., & Nugraha, D. S. (2020). The Use of Lexeme HEAD in English and Indonesian Compound Words: A Contrastive Analysis. *Eralingua: Jurnal Pendidikan Bahasa Asing Dan Sastra*, 4(2), 133–144. <https://doi.org/10.26858/eralingua.v4i2.13073>
 - Pinzin, F. (2018). A syntactic analysis: Chapter 15. Latin denominal deponents. *Romance Languages and Linguistic Theory*, 14, 263–278. <https://doi.org/10.1075/RLLT.14.15PIN>
 - Plag, I. (2003). Word-formation in English. *Word-Formation in English*, 1–240. <https://doi.org/10.1017/CBO9780511841323>
 - Plag, I. (2020a). Morphological Productivity. *Morphological Productivity*. <https://doi.org/10.1515/9783110802863>
 - Plag, I. (2020b). Morphological Productivity. *Morphological Productivity*. <https://doi.org/10.1515/9783110802863>
 - Pustejovsky, J. (2013). *Type Theory and Lexical Decomposition*. 9–38. https://doi.org/10.1007/978-94-007-5189-7_2
 - Pustejovsky, J. (2020). The Generative Lexicon. *The Generative Lexicon*. <https://doi.org/10.7551/MITPRESS/3225.001.0001>
 - Raffelsiefen, R. (2015). Word-formation in optimality theory. *Word-Formation: An International Handbook of the Languages of Europe*, 1, 158–187. <https://doi.org/10.1515/9783110246254-013/HTML>
 - Sarnecka, B. W., Kamenskaya, V. G., Yamana, Y., Ogura, T., & Yudovina, Y. B. (2007). From grammatical number to exact numbers: Early meanings of “one”, “two”, and “three” in English, Russian, and Japanese. *Cognitive Psychology*, 55(2), 136–168. <https://doi.org/10.1016/J.COGLING.2006.09.001>
 - Schmid, H. J. (2015). The scope of word-formation research. *Word-Formation: An International Handbook of the Languages of Europe*, 1, 1–21. <https://doi.org/10.1515/9783110246254-003>
 - Sneddon, J. N., Adelaar, K. A., Djenar, D., & Ewing, M. (2012). *Indonesian: A comprehensive grammar*. Routledge.
 - Soares Rodrigues, A. (2022). Chapter 9. Conversion in a paradigmatic framework of word formation. 215–248. <https://doi.org/10.1075/SLCS.225.09ROD>
 - Štekauer, P. (2015). The delimitation of derivation and inflection. *Word-Formation: An International Handbook of the Languages of Europe*, 1, 230–235. <https://doi.org/10.1515/9783110246254-016/HTML>
 - Štekauer, P., Valera, S., & Körtvélyessy, L. (2012). Word-Formation in the world’s languages: A typological survey. *Word-Formation In The World’s Languages A Typological Survey*, 1–366. <https://doi.org/10.1017/CBO9780511895005>
 - Vydrin, V. F., & Vydrin, V. (2021). Deverbal and deadjectival nominalization in Dan: Not as different as one might think. A reply to Baker & Gondo (2020). *Glossa: A Journal of General Linguistics*, 6(1). <https://doi.org/10.16995/GLOSSA.5852>
 - Wandruszka, U. (2015). Word-formation in categorial grammar. *Word-Formation: An International Handbook of the Languages of Europe*, 1, 112–123. <https://doi.org/10.1515/9783110246254-010/HTML>
 - Wohlgenuth, J. (2009). *A Typology of Verbal Borrowings*. <https://doi.org/10.1515/9783110219340>