Analysis Of Suffixed Words of Plywood Manufacturing Article

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Abstract

The purpose of this research to analyze and find out the suffixed words of the manufacturing process. The primary goal of this research is to determine how the suffixing process occurs in the plywood manufacturing industry. Plywood stands as a foundational building material, comprising thin wood layers or plies bonded together with adhesive. It divides into two primary categories: softwood plywood and hardwood plywood, each aligning with specific tree species. Coniferous varieties, such as firs and pines, predominantly contribute to softwood plywood, while deciduous species, including oak, poplar, maple, cherry, and larch, find prominence in hardwood plywood. This descriptive qualitative research employed linguistic methods for the analysis, i.e. morphological analysis on the plywood-manufacturing words with suffixes that applied derivational and or inflectional processes. The findings showed that the plywood fabricating industry elaborated morphological aspects within their manufacturing article, namely derivational and inflectional suffixes. These findings were acquainted during these cycles with assorted implications to the words inside the article. The ordered information showed a predominance of inflectional postfixes rather than derivational ones in the article. There was a predominance of inflectional suffixing, classified under the appropriate groupings. The outcomes recommend a far-reaching utilization of inflectional suffixing all through the examined content.

Keyword: affixation, suffix, derivation and inflection, plywood industry

INTRODUCTION

Morphology, a semantic viewpoint focused on word ID, investigates the making of new words in different dialects around the world (Erlinawati, 2018). Understanding morphology discloses the characteristics of words and reveals insight into the meaning of morphological highlights in language structure. Every language has its particular morphological attributes.

The suffix is an essential part of the morphological system that English learners must fully comprehend. Postfixes assume a crucial part in word development as they bestow various implications to the root words. As per Umera-Okeke (2007), dominating English spelling includes a significant comprehension of word-development processes.

As affixes added to the end of root words, suffixes significantly alter the meaning of words that contain them.

In linguistics, suffixes are affixes that are placed after the stem of a word. It means that there are some bound morphemes that may have to be conveyed before the central important element of the words. Common examples are case endings, which indicate the grammatical sound of nouns, adjectives, and verb endings, which form verb conjugations. Suffixes can carry grammatical information (inflectional endings) or lexical information (derivative/lexical endings).

Derivative suffixes, if added at the end of a word, will determine the type of word (word class). New words are produced through a process called derivation (the process of forming derivative words) whose meaning will be different from the previous word or root word. For example, a word that was originally an "adjective" if given a derivative suffix at the end, the word can turn into a "noun". Derivational Suffix is further divided into several types, namely:

a. Noun suffixes are final words that change the form of a word to a noun. These are examples of it:

Suffix "-ation"

Example: The basic word 'explore' is a verb which, if you add the suffix -ation, will become 'exploration' (noun).

Suffix "-ness"

Example: The basic word 'happy' is an adjective which, if you add the suffix - ness, will become 'happiness' (noun).

- Adjective suffixes is final words that change the form of a word into an adjective. These are examples of it:
 - Suffix "-ful"

Example: The root word 'forget' is a verb which, if you add the suffix -ful, will become 'forgetful' (adjective).

Suffix "-able"

Example: The basic word 'play' is a verb which, if you add the suffix -able, will become 'playable' (adjective).

c. Adverb suffixes is afinal words that change the form of a word into an adverb. These are examples of it:

Suffix "-ly" The basic word 'easy' is an adjective which, if you add the suffix -ly, will become 'easily' (adverb). Suffix "-ward"

Example: The basic word 'up' when the suffix -ward is added will become 'upwards' (adverb).

d. Verb suffixes

Verb suffixes are final words that change the form of a word to a verb.

Example:

Suffix "-en"

The root word 'hard' is an adjective which, if you add the suffix -en, will become 'harden' (verb).

Suffix "-ify"

Example: The basic word 'beauty' is a noun which, if you add the suffix -ify, will become 'beautify' (verb).

Meanwhile, Inflectional Suffix is a type of suffix which, if added to the end of the word, will bring grammatical changes but does not change the part of speech of the word or its meaning drastically. Example: Adding "-s/ -es" to a noun causes the noun to have a plural meaning, while adding "-s" to a verb indicates that the subject is in the 3rd person singular (or the pronoun).

Inflectional suffixes are endings that do not change the meaning of the base word, but are required as part of grammar (grammar). The example is Suffix "-s". Suffix -s is added to nouns to give them a plural meaning. Examples:

- 'Book' (singular) becomes 'books' (plural)
- 'House' (singular) becomes houses (plural)

Compressed wood, a generally utilized building material, is a made board made out of stuck layers of wood facade. Known for its adaptability, reasonableness, and convenience, pressed wood has been used in development since antiquated times. Starting in Egypt around 1500 B.C., compressed wood developed from facade utilized

for furniture enhancement. Hot presses and synthetic resin adhesives led to significant growth in the industry after the 1930s.

To address industry challenges, this exploration intends to notice compressed wood properties, including strength, layered steadiness, climate obstruction, and ecological effect. Point by point perceptions will add to understanding basic variables affecting compressed wood quality and execution, supporting the improvement of more effective creation strategies.

In a concentrate by De Oliveira et al. (2018), named "Exploratory Assessment and Demonstrating Approach for Static and Dynamic Primary Utilizations of Compressed wood," the creators surveyed compressed wood stacking strategies utilizing trial information models. They saw that as the "customary overlay hypothesis" is pertinent to compressed wood items, upgrading industry execution.

Raghunath et al. (2021) investigated the effect of monetary administration rehearses on the exhibition of Western India Compressed wood Ltd. Their review uncovered areas of strength for a between compelling monetary administration and higher efficiency, underlining the significance of executing checks for exact cost keep in the wood business.

Setter et al. (2021), in their examination named "Impact of Wood Species and Glue Type on the Exhibition of Multilaminate Compressed wood," assessed how wood species and cement types impact pressed wood execution. Their assessment of mechanical and actual properties featured an immediate connection between wood species and item strength, underlining the association between end-use sturdiness and handle quality.

METHODOLOGY

In this research, the data taken are: processing approaches carried out at plywood companies. The data that the author took is based on sources from books and articles about the plywood manufacturing process and was published in 2018.

The writing survey envelops various examinations that have researched the logical and actual properties of the pressed wood industry. Be that as it may, there is

an outstanding shortfall of committed research zeroing in on dissecting the exhibition in wood the executives inside these organizations.

The research objectives of this study are to Analyze the wood management process and analyze or identify what suffixes are found in the plywood management process.

The examination procedure for this study is definite in five perspectives: (1) arrangement of examination type, (2) recognizable proof of exploration subjects, (3) subtleties on data and its sources, (4) approaches utilized for information assortment, and (5) the utilization of information investigation systems. The examination falls under the classification of unmistakable subjective exploration, utilizing techniques to assemble, sort, and dissect information, trailed by reaching determinations in view of the information investigation.

This exploration paper digs into the investigation of word suffixing found on Compressed wood handling sites. The picked research procedure takes on a subjective methodology, known for its engaging nature and accentuation on insightful strategies. Understanding processes and deriving meaning from the perspectives of the subjects are two of the primary goals of qualitative research. The exploration is directed by judiciousness, adjusting the concentration to genuine realities. This coherent system presents the examination setting as well as lays out the basis for talking about the discoveries. Given the semantic idea of the information, the investigation will utilize the morphological suffixing technique. Morphological suffixing is a procedure for word development, where postfixes are added to the furthest limit of words to make new ones. Postfixes address the most straightforward type of a word that can't be additionally unraveled.

DATA FINDINGS

In the Outcomes segment, we share our discoveries acquired from the information gathered on the site. Through our morphological suffixing investigation, we have recognized and accumulated a few words with postfixes. The language patterns and subtle meanings in the website content can be better understood thanks to these results. This part gives a point-by-point outline of the suffixed words we found,

giving bits of knowledge into the language structure and its expected effect on our exploration objectives. In rundown, the Outcomes area grandstands the results of our definite assessment of the site's substance. By utilizing the morphological suffixing technique, we efficiently assembled and concentrated on different words with postfixes, disclosing complex language designs in the dataset. This investigation reveals insight into language structure as well as uncovers nuanced implications inside the words. After investigating most of the diary articles, it becomes evident that there is a commonness of inflectional suffixing, sorting them under the "supportive of postulation" grouping.

We were able to better comprehend the topic because the words we discovered with suffixes are significant indicators of the website's language. We can better interpret the data thanks to these discoveries, which also provide crucial insights into how specific language elements relate to the context. In order to set the stage for a comprehensive discussion and interpretation of the qualitative research findings, we aim to capture the variety and significance of these suffixed words in the Results section.

a) Findings

The following are the results of our research to find and analyze final data on the plywood management process:

The creation of softwood or hardwood pressed wood includes nine essential cycles: storage, **debarking**, and **bucking** of logs, heating of logs, veneer **peeling**, veneer **drying**, veneer **gluing**, hot pressing, plywood **cutting**, and **additional** finishing steps like sanding are all part of the process. Logs are first debarked by running them through a variety of debarking machines with the goal of removing the outer bark without causing much damage to the wood. Following bark **expulsion**, the logs are sliced to **suitable** lengths in a cycle known as **kicking**. In this way, the logs, presently named blocks, go through warming to upgrade the cutting **proficiency** of the facade machine or slicer, bringing about an item with a superior surface **completion**. The blocks are warmed to roughly 93°C (200°F) utilizing different strategies, including **boiling** water showers, steam heat, high temp water splash, or a blend of these procedures.

STAGES:

LOG STORAGE >LOG DEBARKING AND BUCKING > LOGHEATING(STREAMING/SOAKING) > VENEER CUTTING > VENEER DRYING > VENEER LAYUP ANDGLUE SPREADING >PLYWOOD PRESSING > PLYWOOD CUTTING >PLYWOODFINISHING >FINISHEDPRODUCT.PLYWOOD

In the wake of **warming**, the logs are **handled** to create facade. For most **applications**, a facade machine is **utilized**, yet some **embellishing**, top notch facade is **created** with a facade slicer. The slicer and facade machine both work on a similar guideline; the wood is **packed** with a nosebar while the facade blade **cuts** the blocks into facade that are commonly 3 mm (1/8 in.) thick. Enhancing hardwood facade are normally cut a lot more slenderly than 3 mm (1/8 in.) thick. The veneer **pieces** are then clipped to a width that can be used, usually 1.37 meters (54 inches), to allow for **trimming** and shrinkage. After being clipped, veneers are **transferred** to a veneer dryer, where they are **dried** to dry basis **moisture** contents ranging from 1% to 15%. Face facade **dampness** items can run up to 25 percent, dry premise. Target dampness content relies upon the sort of sap utilized in **ensuing** sticking **advances**. The average drying **temperature** goes from 150° to 200°C (300° to 400°F).

The veneer dryer can be either a jet dryer or a **longitudinal** dryer, which moves air parallel to the veneer. In order to produce a more turbulent air flow, the jet dryers aim hot, high-velocity air at the veneers' surface. The **expanded** disturbance gives more powerful **utilization** of dryer energy, in this manner lessening drying time. Facade dryers might be either immediate terminated or **backhanded** warmed. In direct-terminated dryers, hot **ignition** gases from an on location evaporator are mixed with recycled fumes from the dryer to bring down the gas temperatures. In roundabout warmed facade dryers, air is stale steam curls and coursed over the facade. Facade dryers commonly have one to three warmed zones followed by a **cooling** zone or segment. Each warmed zone has a hot air source, fans to move the warm air, and an exhaust vent or stack. Just before the veneer leaves the dryer, the cooling section moves ambient air over it to lower its **temperature**. Before reaching the plywood press, the veneers must be cooled to prevent glue from curing on them during the layup and **spreading** operations.

The rested up **gathering** of facade then is **shipped** off a hot press in which it is united under intensity and strain. There are two main goals of hot pressing: 1) to press the paste into a meager layer over each sheet of facade; and, secondly, to make the **thermosetting** resins work. Ordinary press temperatures range from 132° to 165°C (270° to 330°F) for softwood **compressed** wood, and 107° to 135°C (225° to 275°F) for hardwood **compressed** wood. Press times for the most part range from 2 to 7 minutes. The time and temperature fluctuate contingent upon the wood species utilized, the saps utilized, and the press plan. The compressed wood then is taken to a **completing** interaction where edges are managed; Sanding the back and face smooth may or may not be done. The sort of completing relies upon the final result wanted.

b) Data

No. WORDS SUFFIX MEANING 1 debarking -ing removing the bark from trees or logs			
	cutting a felled tree into logs or sections		
3 peeling -ing removing the outer layer or skin			
4 drying -ing removing moisture or making something	dry		
5 gluing -ing attaching or bonding with glue			
6 cutting -ing dividing or separating with a sharp instru	iment		
7 additional -al extra; supplementary			
8 expulsion -ion the act of forcing someone or something	out		
9 suitable -able appropriate; fitting for a particular purpo	se		
10 kicking -ing striking with the foot			
11 proficiency -cy expertise or skill in a particular activity			
12 completion -tion the act of finishing or completing			
13 boiling -ing the process of heating a liquid until it rea boiling point	aches its		
14 warming -ing the act of making something warmer			
15 handled -ed managed or dealt with			
16 applications -s practical uses or purposes			
17 utilized -ing used or employed			
18 embellishing -ed decorating or making more attractive			
19 created -ed brought into existence; made			
20 packed -ing filled or arranged in a container			
21 cuts -ed incisions or divisions made with a cutting	j tool		
22 pieces -ed separate parts or units			
23 trimming -ure cutting or clipping to make something ne	eat		
24 transferred -ness moved or conveyed from one place to ar	nother		
25 dried -ing freed from moisture or liquid			
26 moisture -es small amounts of water vapor in the air of	or on a surface		
27 dampness -ure slight wetness or humidity			
28 ensuing -al following or happening as a result			
29 advances -ed progress or improvements			
30 temperature -tion the degree of hotness or coldness			
31 longitudinal -ed extending in the direction of the length			
32 expanded -ion increased in size or scope			
33 utilization -ing the act of using or making use of someth	ning		
34 backhanded -ing indirect or not straightforward	-		
35 ignition -ing the act of setting something on fire or st process	arting a		
36 cooling -ed the process of becoming cooler			
37 temperature -ing extending over a larger area			
38 spreading -ed collecting or assembling in one place			
39 gathering -ing transported or sent by ship or other mea	ins		
40 shipped becoming permanently set when heated			
41 thermosetting -ing reduced in volume or size by pressure			
42 compressed -ing finishing or bringing to a conclusion			
43 completing -ing removing the bark from trees or logs			

Table a 1 Table Suffix that fo d in th tiala f ml d facturi

Suffix Dervational and Suffix Inflectional

Data's found:

Derivational: -ation, -es, -ing, -ion, -er, -ly, -d, -age, -ers, -ive, -ure, -ate, -able, -n Inflectional: -s, -ing, -ed

Research Ideas about the other research:

The research on journal articles that we examined almost all resulted in inflectional suffix so they are included in the "pro-thesis." Stated in the table below:

Word Morphologic		Syntatic Process	Semantic Process	
word	Process	Syntatic Process	Semantic Process	
Laugh: laughter	Add. Suffix - ter	Change Verb to Noun	Produce word denoting an act or an activity	
Teach: Teacher	Add. Suffix -er	Change verb to noun	Produce Word denoting an agent	
Red: Redness	Add. Suffix -ness	Change adjective to noun	Produce word denoting property	

Table 2. Inflectional Suffix included in the "pro-thesis"

The results in the table above show that the endings –ation, -es, -ing, -s, -ed, ion, -er, -ly, -ate, -n, -d, -age, -able, -ive, -ure, and -ers correspond to the suffixes found in the articles that were analyzed. Each word experienced in the article serves particular capabilities relying upon the derivational and inflectional postfix applied. There are 79 words with inflectional suffixes attached to them, compared to only 26 words with derivational suffixes, indicating a higher frequency in the analysis. In the content that was examined, this suggests that inflectional word usage is more common than derivational word usage.

After surveying most of the diary articles, it becomes evident that there is a predominance of inflectional suffixing, ordering them under the "favorable to proposal" characterization.

Amount of suffix

These are the amount of suffix are found in the article.

-ation	:1	- ed	:26	- ate	: 1	- able : 1
-es	: 4	- ion	: 3	- n	:1	- ive :1
-ing	: 24	er	:6	- d	:1	- ure :1
-S	: 29	- ly	: 5	- age	:1	- ers : 1

DISCUSSION

After investigating the results of the designated investigation, it becomes obvious that the record named "The Squeezed Wood Assembling Article" shows different cycles including derivational and inflectional postfixes. In the Conversation portion, we analyse our discoveries and dive into their suggestions inside the setting of our subjective exploration. We intently look at the words suffixed that were distinguished on the site, diving into their significance, how they connect with the substance of the site, and the experiences they offer. Besides, we examine the scientific strategy utilized, recognizing its assets and impediments. By connecting our results to laid out hypotheses or writing, we present a more extensive perspective on our disclosures. Basically, the Conversation segment fills in as the space where we decipher our discoveries, survey their outcomes, and position them inside the more extensive scene of subjective examination.

CONCLUSION

A quantitative assessment of the squeezed wood fabricating industry uncovers that, in view of the examination discoveries and conversations, the record named "The Pressed wood Assembling" reliably consolidates derivational and inflectional suffixing processes. These additions are acquainted during these cycles with give assorted implications to the words inside the article. The ordered information shows a predominance of inflectional postfixes rather than derivational ones in the article. The outcomes recommend a far-reaching utilization of inflectional suffixing all through the examined content.

After surveying most of the diary articles, it becomes obvious that there is a predominance of inflectional suffixing, classifying them under the "supportive of postulation" grouping.

REFERENCES

Adela Indah Nurjanah. (2021): Different Suffix and Preffix in Analysis Article.

Andrew. (2022). Business Feasibility Study For The Development of Plywood Plant. PT Multi Mustika Agung.

- Aslamiah, S. (2020, 26 September). The Use Of Prefixes and Suffixes for Increasing Vocabulary Student. FIKRUNA, 2(1), 41-55.
- Chofifah Wulandari. (2022). Analysis Of Defective Products In the Plywood Production Process, Samarinda.
- Dewangga A, and S. Suseno, "Analisa Pengendalian Kualitas Produksi Plywood Menggunakan Metode Seven Tools, Failure Mode And Effect Analysis (FMEA), Dan TRIZ", JTMIT, vol. 1, no. 3, pp. 243–253, Oct. 2022.
- Dinda Tria Pratiwi (2020). Analysis in the Plywood Production Process. Faculty of Enineering, Veterans National Development University
- Fitria, T. N. (2020). An Analysis of Derivational and Inflectional Morpheme in Selected News from Tempo. Co. Rainbow: Journal of Literature, Linguistics and Culture Studies, 9(2), 146–155.
- Ganjar O.W. (2022). Analysis Plywood Production Unit Costs and Revenues (Study PT. Salas Ambas Lestari)
- Gultom, S. M. (2014). Derivational and Inflectional Processes in Some Selected Articles
- Harleyda Dewi, N. L. P. A. A., Agustia, K. T. S., & P. Suyasa, N. L. C. (2022). ANALISIS SUFFIX DERIVATIONAL PADA ESAI MOTIVASI MAHASISWA KELAS INTERNASIONAL UNIVERSITAS DHYANA PURA: STUDI MORFOLOGI. Seminar Ilmiah Nasional Teknologi, Sains, Dan Sosial Humaniora (SINTESA), 4. Retrieved from https://jurnal.undhirabali.ac.id/index.php/sintesa/article/view/1675Roani R. (2019). *Preffix and Suffix Analysis in Relation with Students English Ability*
- Hutaminingrum, M. P. D. (2022). An Analysis of Affixation Processes of Derivation and Inflection in Article with the Title "The Government of the Republic of Indonesia". Linguistics Initiative, 2(1), 70–76. https://doi.org/10.53696/27753719.2132Moses Laksono Singgih. (2020). Implementation Lean Manufacturing Method of Plywood Manufacture Company.
- Panjaitan, H. I., Togatorop, N. R., & Damanik, D. A. (2020). THE ANALYSIS OF FINDING SUFFIX AND PREFIX IN NARRATIVE TEXT. *Jurnal Bahasa Indonesia Prima (BIP)*, 2 (1), 85-89. https://doi.org/10.34012/bip.v2i1.897
- Siyaswati (2019). The English Inflectional Suffixes and Derivational Affixes in Elt. Department of English Education. The University of Muhammadiyah Surabaya
- Meisya Zahira. (2022). Analysis of Suffixed Words in Los Angeles Time Newspaper. Universitas Dian Nuswantoro.
- Tahir, M., Rahayu, H., Ali, A., Idris, I., & Suputra, G. (2023). Morphological Error Analysis in Students' Explanatory Text : An Analysis Based on Gender. Jurnal

Kependidikan: Jurnal Hasil Penelitian dan Kajian Kepustakaan di Bidang Pendidikan, Pengajaran dan Pembelajaran, 9(1), 347-355. doi:https://doi.org/10.33394/jk.v9i1.7129

- Putrayasa, B. I. P. (2019). Kajian Morfologi (Bentuk Derivasional dan Infleksional) (Bandung).
- Taufiq R. (2022). Kekuatan Tarik plywood dari bahan sengon (ALBIZIA CHINENSIS)
- Tengku N. (2023). Value Stream Mapping in the Plywood Production Process to Improve Process Cycle Efficiency.
- Swadesh Kumar (2018). *Process Parameters for Plywood Manufacturing. International Journal* (2022). A Study on Analysis of Product Quality Problems in Plywood Production.
- Qossam, Muhammad Izzuddin Al. (2019). Analysis of Competitiveness and Market Structure Indonesian Plywood on The Market International. Malang: University Brawijaya
- Liang-liang Jia. (2019). Life Cycle Assessment of Plywood Manufacturing Process, University Yangling.