



Translating Cultural Words in News Articles Using DeepL: A Guide for Translators

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Abstract

The key issue in machine-based news translation is the difficulty of translating culturally specific terms with local references into the target language without compromising clarity or cultural identity. Although DeepL Translator is known for producing high-quality translations, its ability to translate Indonesian cultural terms in news articles requires further evaluation. This study aims to analyze the translation strategies used by DeepL in translating Indonesian cultural terms and to evaluate the communicative adequacy of the resulting translations for international readers. This study employs a qualitative approach using an embedded case study design. The data consisted of 117 cultural terms obtained from 25 news articles published by the *Pikiran Rakyat Media Network*. The analysis was conducted based on Newmark's categories of culture and translation strategies, and the translations were evaluated in terms of accuracy, clarity, and cultural appropriateness. The findings indicate that the material culture is the most dominant type of cultural term (60 instances), while the strategy most frequently used is transference (55 instances). This strategy successfully preserves the basic meaning and readability but often fails to convey cultural context, metaphorical nuances, and socio-religious meanings, potentially leading to misunderstandings among international readers. Therefore, this study recommends human post-editing through the *couplet* strategy, which combines transference with descriptive or functional explanations, to enhance communicative clarity without sacrificing the authenticity of meaning. These findings highlight the need for human-machine collaboration in news translation and provide practical insights for translators, editors, and media practitioners, particularly when dealing with culturally sensitive content.

Keywords: Cultural words; News articles; DeepL translation; Translation strategies

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INTRODUCTION

Nowadays, mass media increasingly rely on machine translation tools to present news content in various languages to reach international readers more quickly and efficiently. Unlike other types of text, news translation requires not only linguistic precision but also cultural accuracy, communicative clarity, and sensitivity to the cultural backgrounds of international readers (Pérez, 2024; Popel et al., 2020). Errors in translating cultural terms can lead to distorted information, misunderstandings of local cultural practices, and even misconceptions about the cultural identity of a community (Katan & Taibi, 2021; Taivalkoski-shilov, 2018). Among the various tools available, DeepL Translator is one of the most popular machine translation tools due to its fluency and accuracy in translating foreign languages into Indonesian or vice versa (Naveen & Trojovský, 2024). However, machine translation remains limited and lacks flexibility, particularly when translating cultural terms in texts (Bowker, 2023; Kenny, 2022;

Moorkens, 2025). Therefore, machine translation of cultural terms often still requires human intervention to ensure that meaning, context, and cultural sensitivity are adequately preserved.

Based on the existing issues, this study focuses on evaluating the performance of the DeepL machine translator in translating Indonesian cultural terms into English within the context of news media. Cultural terms refer to words or phrases that carry culturally specific meanings. Translating these cultural terms presents unique challenges because they are deeply rooted in the source language's culture and may lack direct equivalents in the target language (Larson, 1998; Rahmah, 2020; Shuttleworth & Cowie, 2014). Further, the evaluation focuses not only on the translation strategies employed but also on the quality of the translations in terms of accuracy, communicative clarity, and cultural appropriateness for international readers. Through a collaboration with *Pikiran Rakyat Media Network* (PRMN), a leading regional media platform in West Java, the researchers selected a number of online news articles containing specific cultural terms and expressions. These texts served as a corpus for the analysis, which aimed to identify the translation strategies employed by the DeepL Translator while providing practical recommendations for professional news translators.

Research specifically evaluating the translation of cultural terms in news texts using machine translation remains limited. Previous research on the translation of cultural terms using machine translation has largely focused on literary contexts and idiomatic expressions (Dewayanti & Margana, 2024; Lutfi & Amilia, 2026; Suryani et al., 2026). For example, Dewayanti and Margana (2024) examined the effectiveness of Google Translate and DeepL in translating Indonesian idiomatic expressions into English. The findings indicated that while both systems can capture literal meaning, their translations lack contextual accuracy and cultural sensitivity. Moreover, most studies also tend to focus on evaluating other machine translations more extensively, such as Google Translate, Yandex, or ChatGPT (Mentari, 2025; Mustofa et al., 2025; Putra, 2022; F. Zhou, 2024). As Putra (2022) and Zhou (2024) stated, machine translation more frequently employed literal strategies compared to human translation, though a varied yet inconsistent approach was applied to preserving cultural meaning from Indonesian into English.

Although such research has made important contributions, there is still a lack of studies specifically examining the translation of cultural terms in news texts, which require clarity, cultural appropriateness, and communicative effectiveness for a broad audience (Alwazna & Hamed, 2024; Ping, 2022). Hence, this study offers three main contributions. First, this study focuses on Indonesian cultural terms in news articles, a context that has yet to be extensively studied. Second, this study evaluates DeepL Translator as a neural machine translation system that has received less research attention compared to Google Translate. Third, this study proposes a human-machine collaborative workflow through the couplet strategy as a practical guide for media translators in producing communicative and culturally sensitive translations.

Considering the background and existing research gaps, this study aims to answer the following questions: What types of cultural terms are found in news articles from the *Pikiran Rakyat Media Network* based on Newmark's classification?; What translation strategies does DeepL Translator most frequently use when translating these cultural terms?; How does the quality of DeepL's translations in terms of accuracy, communicative clarity, and cultural appropriateness?; and How can human post-editing improve the quality of the translation of cultural terms in news texts? By addressing these questions, this study is expected to expand the body of research on the translation of cultural terms in news texts, provide empirical evidence regarding the effectiveness of DeepL Translator in a media context, and offer a model for human-machine

collaboration that translators, editors, and media institutions can apply to improve the quality of cross-cultural news translation. Overall, this study not only contributes to academic research in the field of translation but also provides tangible benefits to the industry by serving as a guide on the extent to which machine translation can be used in news translation and when human involvement remains necessary to ensure higher-quality translations.

METHOD

Research Design

This study is an applied research project in the field of translation that employs an embedded case study approach (Scholz & Tietje, 2002). The approach was chosen because it allows for an in-depth analysis of a case in a real-world context by involving several interrelated units of analysis. The case in this study is the use of DeepL Translator to translate Indonesian-language news articles into English at the *Pikiran Rakyat Media Network* (PRMN). Meanwhile, the embedded units of analysis consist of cultural terms found in the news articles, the translation strategies applied by DeepL Translator, and the quality of the translations evaluated based on accuracy, clarity, and cultural appropriateness. Thus, the evaluation not only focuses on the lexical equivalents of each term, but also considers how translation strategies affect the conveyance of information, the preservation of cultural identity, and the comprehensibility of the news for international readers.

Data Source

The data in this study consists of cultural terms found in 25 local news articles recommended by the research partner, *Pikiran Rakyat Media Network* (PRMN). These articles were previously published and cover topics such as culture, cuisine, tourism, and local events, which will be translated for foreign readers using the DeepL Translator machine translation system. The sample was selected using purposive sampling because only articles containing Indonesian cultural terms relevant to the research objectives were analyzed. Cultural terms in the articles were categorized based on cultural taxonomy proposed by Newmark (1988), including ecology, material culture, social culture, organizations, customs, activities and concepts, as well as gestures and habits.

Research Instruments

This study utilized four main instruments. First, a cultural term identification sheet was used to record every cultural term found in news articles along with the context in which it appears. Identification was based on Newmark's (1988) five cultural categories: ecology, material culture, social culture, organizations, customs, activities and concepts, as well as gestures and habits.

Table 1. Indicator of Cultural Terms Categorization based on Newmark's (1988) Theory

Category of Culture	Criteria
Ecology	The lingual unit is used to mark or point out the endemic flora, fauna, natural phenomena, and lands in the source text.
Material Culture	The lingual unit is used to mark or point out the endemic food, clothing, artifacts, buildings, and transportation in the source text.
Social Culture	The lingual unit is used to mark or point out the endemic social relations, honorifics, customs, activities, procedures, and concepts in the source text.
Organizations, Customs, Activities, and Concepts	The lingual unit is used to mark or point out the endemic flora, fauna, natural phenomena, and lands in the source text.
Gesture and Habits	The lingual unit is used to mark or point out the endemic gestures and habits in the source text.

Second, the translation strategy analysis sheet was used to identify the translation strategies applied by DeepL Translator to each cultural term based on Newmark's (1988) cultural translation strategies, such as transference, functional equivalent, descriptive equivalent, cultural equivalent, componential analysis, through translation, recognized translation, compensation, paraphrase, notes, and couplet.

Table 2. Indicator of Translation Strategies based on Newmark's (1988) Framework

Translation Strategies	Criteria
Transference	Cultural terms are retained in their original form from the SL without translation or with only very minimal spelling adjustments.
Naturalization	SL terms are retained but undergo adjustments in spelling, pronunciation, or morphological form to conform to the rules of the TL.
Cultural Equivalent	Cultural terms are replaced with other cultural terms in the TL that have similar cultural functions or values, even if they are not lexically identical.
Functional Equivalent	Cultural terms are translated based on their function or use in the SL so that they are easily understood by readers of the TL.
Descriptive Equivalent	Cultural terms are translated by providing a description of their form, function, or characteristics to explain their meaning to readers.
Synonymy	Cultural terms are translated using words or expressions that come closest in meaning when no exact equivalent is available.
Through-translation	Cultural terms or phrases are translated literally based on their constituent elements, resulting in direct equivalents in the TL.
Shift/Transposition	Changes in grammatical structure or part of speech occur without altering the core meaning of the cultural term.
Modulation	Translations are adapted by changing the viewpoint, perspective, or angle to make them sound more natural in the TL.
Recognized Translation	Use official equivalents or widely recognized terms in the TL, such as the names of institutions, organizations, or specific concepts.
Translation Label	Provide a provisional translation or a new label for terms that do not yet have a standard equivalent in the TL.
Compensation	Cultural meaning or effect lost in one part of the text is restored in another part of the translation.
Componential Analysis	The meaning of a cultural term is broken down into several semantic components, which are then translated based on those components.
Reduction & Expansion	Some elements of meaning or cultural information are omitted to produce a more concise translation without compromising the main meaning; additional information is added to the translation to clarify the meaning or cultural context that is not implied in the TL.
Paraphrase	Cultural terms are translated by explaining their meaning using expressions or sentences that are longer than the original form.
Couplets	Combining two or more translation strategies for a single cultural term.
Notes, Additions, Glosses	Adding notes, explanations, a glossary, or additional information within or outside the text to help readers understand cultural terms.

Third, the translation quality assessment rubric was developed by adapting the theories of Angelelli & Jacobson (2009) and Nababan et al. (2012). This rubric was used to evaluate the quality of the translation of cultural terms. Based on this combination, it could be simplified that three main aspects need to be assessed: accuracy, clarity, and cultural appropriateness. The assessment was conducted using a three-point scale (1 = low, 2 = moderate, 3 = high) for each aspect. The accuracy aspect measures the

precision of conveying the meaning of cultural terms; clarity assesses the comprehensibility of the translation for English-speaking readers; and cultural appropriateness evaluates the extent to which the cultural values in the source text are preserved in the target language. The assessment was conducted independently by researchers based on a rubric that had been developed.

Table 3. Rubric for Translation Quality Assessment Simplified from Angelelli & Jacobson (2009) and Nababan et al. (2012)

Aspect	Score 1	Score 2	Score 3
Accuracy	The meaning of cultural terms in SL is not accurately conveyed in TL; there is a deviation in meaning or a loss of important information.	The meaning of cultural terms is largely conveyed, but there are still gaps in information or minor shifts in meaning.	The meaning of cultural terms is conveyed fully and accurately without any deviation in meaning.
Clarity	The translation is difficult for English readers to understand because the structure is unnatural or unfamiliar terms are not explained.	The translation is understandable, but requires extra effort from the reader because some terms are uncommon or lack context.	The translation is easy for readers to understand, uses a natural structure, and unfamiliar terms are well explained.
Cultural Appropriateness	The translation ignores cultural aspects, loses the original cultural value, or uses contextually inappropriate equivalents.	The translation retains some cultural value but does not fully explain the cultural meaning it conveys.	The translation fully preserves the cultural value and, where necessary, provides additional explanations to help readers understand the original cultural nuances.

Data Collection

The data collection was carried out through the following steps. First, the researchers obtained news articles from the *Pikiran Rakyat Media Network* (PRMN) through a research collaboration. Together with PRMN editors, 25 news articles were selected that contained Indonesian cultural terms and represented a variety of news topics. Second, all articles were read thoroughly to identify cultural terms. Each term was recorded along with its contextual sentence and then classified according to Newmark's (1988) cultural categories. Third, all articles were translated using the web version of DeepL Translator, a Neural Machine Translation (NMT)-based translation engine known for producing translations with good grammatical structure and high fluency (Kamaluddin et al., 2024; Telaumbanua et al., 2024), with the same settings applied to the entire dataset. Specifically, the Indonesian-English language pair was translated without any additional modifications (default settings) to ensure consistency in the translation process. Fourth, each pair of source text and target text was documented in an analysis sheet so that each cultural term could be directly compared with its translation. Fifth, the translation strategies used by DeepL were identified based on Newmark's (1988) theory. Last, the translations were evaluated using a translation quality rubric and then compared with the results of human post-editing to identify necessary improvements.

Data Analysis

Data analysis was conducted in stages. The first stage involved grouping all cultural terms based on Newmark's (1988) five cultural categories. The second stage involved identifying the translation strategies applied by DeepL Translator to each cultural term. The third stage involved evaluating the quality of each translation output using three assessment criteria: accuracy, clarity, and cultural appropriateness. Next, the machine translation results were compared with alternative human post-edited versions in which a human translator refines the machine's output to produce a more communicative translation while preserving cultural nuances whenever a loss of cultural meaning or a lack of communicative clarity was identified. This comparison was used to identify patterns of strengths and weaknesses in the strategies applied by DeepL. In the final stage, all findings were analyzed thematically to draw conclusions regarding trends in translation strategies, the quality of translation results, and the most effective forms of human intervention for improving the quality of cultural term translation in news texts.

RESULTS AND DISCUSSION

This section presents the results of an analysis of cultural terms found in Indonesian-language news articles and their translations using DeepL Translator. The analysis focuses on answering the following research questions: (1) the types of cultural terms found in the news corpus, (2) the translation strategies used by DeepL, (3) the quality of the translations in terms of accuracy, clarity, and cultural appropriateness, and (4) the role of human post-editing in improving translation quality. Additionally, recommendations are provided on how human translators can improve machine-generated translations to achieve better communication effectiveness and cultural clarity.

Distribution of Cultural Words

To answer the first research question regarding the types of cultural terms found in news articles, 117 cultural terms were identified and classified based on the five cultural categories proposed by Newmark (1988). The distribution of each category is presented in Table 4.

Table 4. Cultural Words in PRMN's News Article

No	Category of Culture	Example of Data	Frequency	Percentage
1	Ecology	<i>Pulau Dewata, Subak, Gunung Bromo, etc.</i>	14	11.97%
2	Material Cultures	<i>Pendopo, Kain tenun, Warung, etc.</i>	60	51.28%
3	Social Cultures	<i>Pacu Jalur, Anak Coki, Tari Barong, etc.</i>	13	11.11%
4	Organizations, Customs, Activities, and Concepts	<i>Ritual pekaruan, adat istiadat, RT/RW, etc.</i>	29	24.79%
5	Gesture and Habits	<i>Merogoh kocek</i>	1	0.85%
Total			117	100%

Table 4 shows that the material culture category is the most dominant, accounting for more than half of all cultural terms identified. The dominance of this category indicates that local news reports frequently mention cultural elements related to traditional food, clothing, architecture, cultural objects, and artifacts unique to Indonesia. In contrast, the "gestures and habits" category was found only once, indicating that nonverbal cultural elements appear relatively rarely in the analyzed news corpus. This distribution suggests that the main challenge in translating culture-based news lies in translating elements of material culture, which generally lack direct equivalents in English.

Translation Strategies Used by DeepL Translator

Following the successful identification of cultural terms, the next step is to analyze the translation strategies used by DeepL Translator based on Newmark's (1988) theory. The distribution of the strategies applied across the entire dataset is shown in Figure 1.

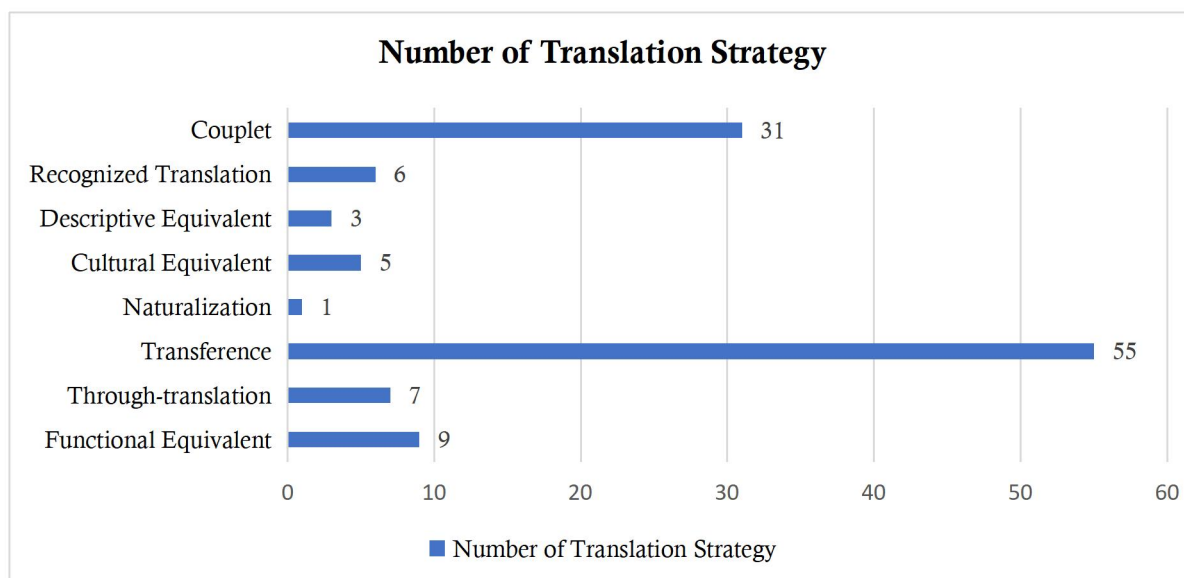


Figure 1. Translation Strategy in Translating Cultural Words

Figure 1 shows that transference is the most frequently used strategy by DeepL Translator (55 instances), followed by couplet (31 instances). The predominance of the transference strategy indicates that DeepL tends to retain the original form of cultural terms when no adequate equivalent is available in the target language. Although this approach helps preserve cultural identity, it is often not accompanied by the additional information needed for international readers to understand the term's meaning. Meanwhile, the use of other strategies, such as functional equivalents, cultural equivalents, and descriptive equivalents, is relatively less frequent, resulting in DeepL's limited ability to bridge cultural differences.

Translation Quality Assessment

To evaluate the quality of the translations, each cultural term is assessed based on three aspects: accuracy, clarity, and cultural appropriateness. The average scores for each aspect are shown in Figure 2.

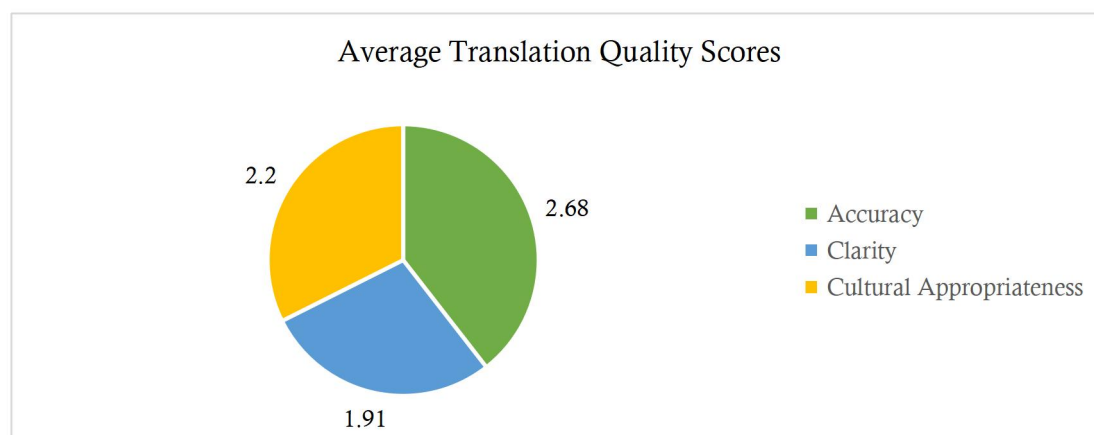


Figure 2. DeepL Translation Average Quality Scores in Translating Cultural Words

Figure 2 shows that the accuracy aspect received the highest average score (2.68), indicating that DeepL generally succeeded in preserving the basic meaning of cultural

terms. However, the clarity score (1.91) was the lowest among the three evaluation aspects, suggesting that many cultural terms remain difficult to understand for readers without an Indonesian cultural background. The cultural appropriateness aspect received an average score of 2.20, indicating that some cultural values were successfully preserved but not yet fully conveyed communicatively. This pattern reinforces that DeepL's primary strength lies in conveying literal meaning, while its limitations lie in conveying cultural context and implicit meaning. Therefore, these findings support the need for human post-editing as a follow-up step to improve the quality of cultural term translation in news texts.

Representative Cases of Cultural Word Translation

Ecology

Ecological culture refers to endemic names or terms related to natural elements, such as animals, plants, mountains, and other geographical features. Several cultural terms classified under the ecological category were found in the data corpus, including *Pulau Dewata*, *Pulau Kemaro*, *Gunung Bromo*, *Teluk Balikpapan*, *Kaldera Tengger*, and *Puncak Mahameru*. These terms are generally translated using the couplet strategy, which combines transference (retaining the original term) and through-translation (literal translation). This strategy was chosen because these cultural terms are generally associated with geographical elements such as islands, mountains, or bays, which are relatively easy to recognize and have direct equivalents in English.

However, some data indicate a different pattern, such as the term “*Subak*,” which is translated solely using the transference strategy without any additional explanation or description. This creates the potential for ambiguity in meaning, particularly for readers unfamiliar with the cultural term. The following analysis demonstrates the effectiveness of the strategies employed by *DeepL* and to what extent these strategies can convey the cultural dimensions embedded in the terms.

Article No. 11, Data 42

SL : *Subak* merupakan warisan budaya yang telah berlangsung sedari 1.000 tahun silam.

TL : *Subak* is a cultural heritage that has been around for 1,000 years.

The cultural term mentioned above is “*Subak*,” which refers to Bali's traditional irrigation system developed over more than a thousand years and recognized by UNESCO as an intangible cultural heritage of humanity (Manan & Galba, 1989; Windia et al., 2015). This system is not merely an agricultural practice but also represents a socio-religious institution that integrates water management, labor cooperation, and spiritual rituals, thereby possessing a very rich cultural significance (Windia et al., 2015; Yuliana, 2020).

According to cultural classification, *Subak* falls under the ecological category, as it relates to water-based agricultural systems and landscapes. Furthermore, the term is closely tied to culture due to its communal and ritualistic nature. Consequently, translating this term is quite challenging due to the lack of a direct equivalent in English.

Table 5. Translation Quality Assessment of Cultural Words

SL	TL	Accuracy	Clarity	Cultural Appropriateness
<i>Subak</i>	<i>Subak</i>	3	2	2

In this case, DeepL translates the term “*Subak*” by applying a transference strategy, which involves retaining its original form. This approach does preserve the cultural identity and authenticity of the term. However, this translation lacks explanatory context, making the meaning of the sentence unclear to readers unfamiliar with Balinese

traditions. For an international audience, the translation of the sentence above may not be sufficient to convey its actual function and significance. This allows for the possibility of alternative interpretations, where the term might refer to an object, an art form, or an abstract concept without mentioning its agricultural and spiritual dimensions. This aligns with Sekhri (2019)'s finding that machine translation tends to overlook the pragmatic and cultural dimensions of the source text, particularly in the case of local or endemic terms.

From a human translation perspective, this gap can be addressed by applying the couplet strategy, which combines the transfer strategy with descriptive or functional equivalence. Here is another translation alternative:

TL : Subak, Bali's traditional irrigation system, is a cultural heritage that has been around for 1,000 years.

This translation version is better at preserving the original terms to maintain authenticity while adding descriptive phrases that explain its nature as an agricultural and cultural practice. In contexts such as news media, where readers may lack prior knowledge, such explanations significantly enhance understanding and preserve the cultural depth of the original text.

Material Cultures

The material culture category is the most prevalent group of cultural terms found in the data corpus. This is not surprising, given that this category encompasses various concrete and easily observable aspects of daily life, particularly in culinary topics such as food, beverages, and spices (Ajtony, 2016). Some examples of terms classified in this category include *Bebek Timbungan*, *soto*, *gulai*, *balado*, *emping*, and *rawon*. These terms are generally translated using the transference strategy because culinary terms are often unique, lack direct equivalents in English, and serve as representations of specific cultural identities that the translator aims to preserve in the translated text.

However, not all terms in this category are translated using the same approach. Terms such as *takjil*, for example, are translated using the *couplet* strategy, which involves combining two or more strategies simultaneously. The choice of this strategy indicates the translator's awareness of potential cultural gaps that could hinder understanding, necessitating an explanation to preserve the functional meaning and the accompanying socio-religious context of the term. The following is an analysis of how the *couplet* strategy is applied in machine-assisted cultural translation.

Article No. 1, Data 5

SL : Di bulan Ramadan ini, Bali Timbungan juga menyediakan menu *takjil* gratis bagi para pengunjung yang kebetulan mampir saat waktu berbuka puasa.

TL : During Ramadan, Bali Timbungan also provides free *takjil* (food to break the fast) for visitors who happen to stop by at iftar time.

The cultural term found in the data above, the word “takjil,” which refers to light meals or snacks typically served to break the fast during the holy month of Ramadan, falls under the category of material culture (food) according to Newmark (1988)'s taxonomy. Culturally and religiously, this term holds significant meaning in predominantly Muslim societies such as Indonesia.

Table 6. Translation Quality Assessment of Cultural Words

SL	TL	Accuracy	Clarity	Cultural Appropriateness
<i>Takjil</i>	<i>Takjil (food to break the fast)</i>	3	3	3

In this case, the *DeepL* translator employed the couplet strategy, which combines transference, retaining the term “*takjil*”, with descriptive equivalence (“food to break the fast”). This approach successfully preserves the source-language term while providing an additional explanation to aid the understanding of target-language readers who are unfamiliar with the term. Technically, the couplet strategy is a relatively successful approach to prevent the distortion of cultural elements and help preserve the identity of the term, particularly in the context of news media that emphasizes the role of branding to highlight a specific culture.

For a more communicative and culturally nuanced translation, human translators are advised to refine the machine translation output by enhancing descriptive equivalence. More appropriate revisions may include:

TL : During Ramadan, *Bali Timbungan* also provides free ***takjil* (light traditional Indonesian meals for breaking the Ramadan fast)** for visitors who happen to stop by at iftar time.

The use of this phrase not only preserves the term “*takjil*” for cultural recognition but also enriches the explanation with relevant sociocultural context, thereby enhancing readability and cross-cultural understanding.

Social Cultures

The social culture category in this study generally focuses on forms of address, nicknames, or honorific titles that reflect social structures, kinship relationships, and norms of politeness in Indonesian society. The data reveals that the majority of terms in this category relate to culturally specific forms of address and have no direct equivalents in English.

The strategies applied in translating these sociocultural terms tend to vary, depending on the sentence context and the term’s position within the discourse structure. One notable example to be analyzed further is the term “*Abah*,” which is frequently used to denote distinctive social relationships, such as emotional closeness, age, or social status.

Article No. 9, Data 34

SL : Ketua panitia Ngadu Bako (FGD), Mas Nanu Munajar atau yang lebih akrab disapa ***Abah Nanu***, yang juga dosen ISBI menyebut pertemuan dengan para empu paguron yang ada di Jawa Barat menjadi langkah awal untuk Prodi Pencak Silat.

TL : The head of the *Ngadu Bako* (FGD) committee, Mas Nanu Munajar, or more familiarly known as ***Abah*** Nanu, who is also a lecturer at ISBI, said that the meeting with the paguron masters in West Java was the first step for the Pencak Silat study program.

In this sentence, the cultural term “*Abah*”, derived from the word “*Aba*”, is used as a form of address or an honorific title for adult men or male elders, as well as for those who have performed the Hajj (Kemendikbud, 2023; Saptawati, 1997). According to Newmark (1988), the term “*Abah*” can be categorized under social culture, or more specifically, it pertains to kinship terms that carry local cultural significance and do not necessarily have a direct equivalent in the target language (English).

Table 7. Translation Quality Assessment of Cultural Words

SL	TL	Accuracy	Clarity	Cultural Appropriateness
Abah Nanu	<i>Abah Nanu</i>	2	2	2

In this case, the *DeepL* translation engine chose not to translate the term “*Abah*” into English, but instead left it in its original form (transference), namely “*Abah Nanu*.” This approach aligns with the findings of Rasul (2016), who notes that retaining the original form of cultural terms is justified when there is no direct equivalent in the target

language or when the embedded cultural value is too specific to translate. This strategy does have the advantage of preserving the cultural authenticity of the source text, particularly if the target audience is assumed to recognize the term or can overlook it without losing the main meaning. However, its drawback is the potential for confusion among foreign readers who are unaware of the meaning and nuances of terms like “*Abah*.” In the context of cross-cultural informative texts, this can reduce the clarity of communication. Therefore, human translators are still needed to edit the translations produced by *DeepL*.

The application of the *couplet* strategy in this translation is more appropriate, namely ‘transference’ and “notes” with additional explanations. This is necessary so that the translation preserves the cultural flavor while providing a broader understanding. The translator can add a short note, for example:

TL : “...or more familiarly known as *Abah Nanu* (a Sundanese respectful title for elder men) ...”

The role of a human translator, therefore, is not merely to translate lexical meanings, but also to convey the social relationships, hierarchies, and cultural connotations embedded in those terms.

Organizations, Customs, Activities, and Concepts

The category of organizational social culture in the data findings includes terms that refer to organizations, social customs, activities, procedures, and institutional concepts that exist within Indonesian society. Most of the terms included in this category relate to the fields of politics, the arts, and religion, such as the names of government institutions, cultural festivals, and specific religious celebrations.

During the translation process, *DeepL* Translator sometimes employs a recognized translation strategy for organizational terms that already have standard equivalents or are widely recognized internationally (Newmark, 1988; Ordudari, 2007). This is evident, for example, in the translation of established government agency names or national programs. This strategy facilitates the target reader’s understanding while maintaining formal equivalence of meaning. However, challenges arise when the term being translated carries a highly local conceptual load and is rich in cultural value, such as the term *Satu Suro*. In this context, a literal translation or recognized translation strategy alone is insufficient, as it risks losing the deep layers of cultural meaning. The following is a more detailed discussion regarding the analysis of this term.

Article No. 22, Data 90

SL : *Setiap kali datangnya 1 Muharram yang dalam penanggalan Jawa dikenal sebagai malam Satu Suro banyak masyarakat di tanah Jawa menyiapkan hidangan istimewa, Bubur Suro.*

TL : Every time 1 *Muharram* arrives, which is known as **Satu Suro** night in the Javanese calendar, many people in Java prepare a special dish called *Bubur Suro*.

The cultural term found in the data above is the phrase “*Satu Suro*.” The term *Satu Suro*, derived from the word *Asura*, is deeply rooted in the cultural and religious traditions of Javanese society, referring to the celebration of the Islamic New Year (1 *Muharram*), marked by mystical reflections, ancestral ceremonies, and various symbolic practices (*Kamus Bahasa Indonesia*, 2008). Based on its classification, this term falls under organizational culture, traditions, activities, and concepts because it refers to a culturally specific temporal marker associated with rituals and beliefs.

Table 8. Translation Quality Assessment of Cultural Words

SL	TL	Accuracy	Clarity	Cultural Appropriateness
<i>Satu Suro</i>	<i>Satu Suro</i>	3	2	2

In this case, *DeepL* employs a transference strategy for the term, leaving “*Satu Suro*” untranslated in the target text. While this approach successfully preserves the source text’s cultural lexical identity, it fails to provide adequate cultural contextualization for the target audience. This is because *DeepL* does not offer additional descriptions to help the target-language audience understand the spiritual or ritualistic nature of the term.

Although the sentence above includes useful explanatory context with phrases like “in the Javanese calendar,” this is insufficient to capture the deep cultural and symbolic meaning behind the reference. Therefore, while the translation is linguistically correct and well-structured, it remains semantically unclear and culturally inaccessible to readers unfamiliar with the term.

A more communicative translation should employ a couplet strategy by combining two approaches: transference and functional equivalence. The suggested translation is as follows:

TL : “... which is known as *Satu Suro* night in the Javanese calendar – a **mystical observance of the Islamic New Year** ...”

This translation provides a concise explanation of *Satu Suro*, enriching the reader’s cultural understanding without obscuring the term’s original meaning. Such explanations are particularly important in journalistic texts, where cultural references are often introduced without prior explanation and may be unfamiliar to foreign readers.

Gestures and Habits

The gestures and habits cultural category was the least frequently found in the news articles analyzed. The scarcity of terms from this category can be explained by the nature of news texts, which generally focus on conveying facts, current events, and objective information, and thus tend to avoid the use of nonverbal expressions or cultural habits that lack explicit equivalents in the target language (Ismailia, 2023). Furthermore, many gestures or daily habits are implicit in the source culture, so they are not always explicitly highlighted in news narratives.

Nevertheless, one piece of data found in this category actually offers unique analytical value because it contains distinctive cultural expressions. The following is an analysis of the data found to examine how *DeepL* translates it and to what extent the translation strategies used can preserve the cultural messages contained within.

Article No. 22, Data 90

SL : *Tempat wisata budaya di Bogor juga cenderung murah, jadi Sobat PR tidak akan merogoh kocek terlalu banyak.*

TL : Cultural tourist attractions in Bogor also tend to be inexpensive, so you won't have to **spend** too much **money**.

This sentence contains a culturally relevant term, namely “*merogoh kocek*,” which literally means “to reach into one’s pocket.” This term reflects a type of figurative expression embedded in everyday Indonesian conversation related to spending money. According to Newmark (1988)’s taxonomy, this expression falls into the category of gestures and habits, which metaphorically represents the act of spending money through a reference to a body gesture common across various cultures: putting one’s hand in a pocket.

Table 9. Translation Quality Assessment of Cultural Words

SL	TL	Accuracy	Clarity	Cultural Appropriateness
<i>merogoh kocek</i>	spend money	2	3	2

In this case, *DeepL* translates the idiomatic expression “*merogoh kocek*” as “spend money” or “spend too much money.” This is an example of functional equivalence, in which the machine translator conveys the basic meaning but omits the metaphorical and cultural nuances of the original text (Alawi & Abdulhaq, 2017). The literal form of this term is not retained or translated literally, as this could confuse readers unfamiliar with its idiomatic usage. Although this translation is semantically accurate and pragmatically effective, it results in the loss of stylistic nuance and cultural flavor.

A more communicative and stylistically faithful translation suggestion for this term should opt for a metaphorical equivalent that preserves its visual imagery, such as:

TL : Cultural tourist attractions in Bogor also tend to be inexpensive, so you won't have to **dig deep into your pocket**.

This alternative preserves the meaning contained in the original phrase while offering a natural and culturally equivalent expression in English.

DeepL's Preference for Transference in Translating Cultural Words

One of the key findings of this study is *DeepL* Translator's tendency to use the transference strategy when translating Indonesian cultural terms into English. The transference strategy was the most dominant among the 117 cultural terms analyzed, appearing 55 times. This finding indicates that when encountering cultural terms that lack a direct equivalent in the target language, *DeepL* tends to retain the original form of the term rather than replacing it with a more descriptive or adaptive equivalent (Hervey & Higgins, 1992; Newmark, 1988).

This tendency can be explained by the characteristics of Neural Machine Translation (NMT) systems, which are designed to prioritize the preservation of lexical meaning and grammatical fluency based on patterns learned from bilingual corpora. For cultural terms that are highly specific to the source culture, the system often has a low level of confidence in generating culturally equivalent equivalents. Therefore, retaining the original term through the transference strategy is a relatively safe choice because it avoids semantic errors resulting from overly free translation. This strategy is also consistent with Pedersen's (2007) statement, who argued that it involves retaining the original form of a cultural term when no adequate equivalent is available in the target language.

Nevertheless, the predominance of the transference strategy also highlights *DeepL*'s limitations in cultural mediation. Cultural terms do not merely carry lexical meanings but also represent social, historical, religious, and emotional values understood by the source-language community. When such terms are retained without additional explanation, international readers who lack an Indonesian cultural background may potentially have difficulty understanding both the meaning and the cultural function of those terms. In other words, the transference strategy successfully preserves cultural identity but does not yet fully guarantee cross-cultural comprehensibility.

These findings are consistent with Zhou et al. (2021) study, which shows that machine translation systems tend to preserve literal forms or meanings rather than making more complex cultural adaptations. The results of this study also expand upon the findings of Dewayanti and Margana (2024) and Putra (2022), which revealed that machine translation is capable of applying various cultural translation strategies but is not yet consistent in preserving cultural meaning in its entirety. Unlike previous studies, which primarily used literary texts and folktales as data sources, this study shows that the tendency to use transference also occurs in news texts, even though the nature of news demands the delivery of information that is clear, concise, and easily understood by an international readership.

These findings suggest that the transference strategy should not be viewed as a weakness of DeepL, but rather as an initial translation strategy that still requires human intervention. In the context of news translation, translators and editors act as cultural mediators by determining whether cultural terms should be retained in their original form or supplemented through other strategies, such as descriptive equivalents or functional equivalents, to preserve cultural identity without compromising clarity for the target audience.

Limitation of DeepL Performance: Loss of Cultural Meaning

Despite DeepL Translator's strong performance in preserving the basic meaning of cultural terms, this study shows that the system still has limitations in conveying cultural depth. These limitations are evident across various categories of cultural terms, particularly those related to social and religious values, metaphorical expressions, and cultural concepts that can only be understood through knowledge of the source culture. In many cases, DeepL is capable of producing semantically accurate translations but is not yet able to represent the pragmatic meaning or social function inherent in these terms.

The loss of cultural meaning occurs because machine translation systems essentially operate based on linguistic patterns learned from bilingual corpora, rather than on an understanding of social and cultural context. As a result, when encountering terms with layered meanings or references to local culture, DeepL tends to retain the original form through a strategy of transference or to simplify the meaning using functional equivalents. While both strategies can preserve readability and the accuracy of the basic meaning, they often strip away the cultural elements that characterize the source text, such as symbolic value, ritual significance, social relationships, and the emotional nuances the author intends to convey.

These findings support the research by Syahdewa and Zulhendry (2024), which states that machine translation systems generally are not yet capable of providing the contextual information needed to help cross-cultural readers fully understand cultural terms. The results of this study are also consistent with Untara and Setiawan (2020), who argue that the translation of cultural terms often cannot be accomplished using a single translation strategy but rather requires a combination of several strategies tailored to the characteristics of the terms being translated. In the same context, Safi'i (2025) demonstrates that the application of the couplet strategy, particularly through the combination of transference with other strategies such as literal translation or descriptive equivalence, can preserve cultural form while enhancing reader comprehension. This finding is reinforced by Rahmah et al. (2025), who emphasize that combining translation strategies allows cultural identity to be preserved without sacrificing the effectiveness of communication.

The findings of this study expand upon the results of previous research by demonstrating that this issue is not limited to literary or cultural texts but is also present in news texts. Unlike literary works, which still allow readers room to interpret cultural meanings, news texts require information that is fast, accurate, and easily understood by an international audience. Therefore, the loss of cultural meaning in news translation has the potential to cause misunderstandings regarding Indonesian cultural practices and to diminish the role of news as a means of cross-cultural communication.

Thus, the main limitation of DeepL Translator does not lie in its ability to produce grammatically correct sentences, but rather in its inability to perform cultural interpretation. This finding underscores that the quality of translating cultural terms is determined not only by linguistic accuracy but also by the ability to convey the context, values, and cultural functions embedded in those terms. Consequently, the involvement

of human translators remains essential to supplement machine translation results, particularly when texts are intended for readers from different cultural backgrounds.

Human Translators as Cultural Mediators

The findings of this study indicate that although DeepL Translator is capable of producing linguistically accurate translations and preserving most cultural terms through strategies such as transference and functional equivalence, translation quality still depends on the involvement of a human translator. This is particularly evident in cultural terms that carry social, historical, religious, or metaphorical meanings, which require interpretation beyond interlingual lexical relationships. Therefore, human translators serve not only as editors of machine-generated translations but also as cultural mediators who bridge the gaps in knowledge, values, and perspectives between the source and target cultures.

This role becomes increasingly important in the translation of news texts. Unlike literary texts, which allow readers to interpret cultural meanings independently, news texts aim to convey information quickly, accurately, and in a way that is easily understood by readers from diverse cultural backgrounds. In this context, translators must determine whether a cultural term should be retained in its original form, explained using a descriptive equivalent, or adapted using a functional equivalent so that the message remains communicative without losing the source text's cultural identity. Such decisions cannot be made entirely by machine translation systems, which operate based on statistical and linguistic patterns.

These findings are consistent with Hasibuan (2025), who demonstrated that machine translation output still requires human editing to improve the accuracy and acceptability of the translation. This study expands on those findings by demonstrating that the need for human post-editing stems not only from linguistic errors but also from the need to preserve implicit cultural meaning. Thus, the editing process is no longer understood as merely correcting linguistic errors but rather as a process of negotiating cultural meaning so that international readers gain an understanding equivalent to that of readers of the source language.

Based on the findings of this study, human translators should adopt a selective human post-editing approach. This argument aligns with Mentari et al. (2024)'s statement that advances in machine translation still require human involvement to ensure accuracy and cultural appropriateness. Cultural terms that have been adequately translated by DeepL do not require significant changes, whereas terms that lack cultural context require intervention through strategies such as descriptive equivalents, functional equivalents, or couplets. This approach allows for continued translation efficiency through the use of DeepL, without sacrificing clarity of communication or cultural sensitivity.

The practical implication of these findings is the need to enhance the competencies of translators and media editors in critically utilizing machine translation. In addition to language proficiency, translators must master cultural translation strategies, post-editing techniques, and the ability to evaluate translation quality in terms of accuracy, clarity, and cultural appropriateness. For media translators using machine translation tools, this example demonstrates the importance of proactive post-translation editing and cultural annotation. Rather than replacing or omitting cultural terms, translators should supplement them with strategic, target-audience-oriented explanations to preserve and enhance the clarity of those cultural terms (Mentari, 2025).

Proposed Human-Machine Collaboration Workflow

Based on an analysis of the translations produced by *DeepL* and an evaluation of its limitations, this study proposes a workflow for translating cultural terms that combines

machine translation with human editing. This workflow aims to optimize efficiency and ensure that cultural nuances, uniqueness, and clarity of communication are preserved in the final target text. The proposed process consists of four main stages; source text (cultural words); results of machine translation; cultural gap analysis, human post-translation editing; and final result of machine-human translation.

This process begins with a source text, which contains culturally embedded terms that are likely to pose translation challenges. The text is then processed by a machine translation system, which instantly generates an output in the target language. In line with Pérez (2024)'s guidelines related to MT post-editing, the general instruction consists of two tasks: checking and correcting the MT output. Although this step offers speed and basic accuracy, machine-generated translations often fail to convey cultural nuances or figurative meanings. To address these limitations, the next stage, cultural gap analysis, involves a human translator reviewing the output to identify problematic translations, such as untranslated cultural terms, generic explanations, or idiomatic expressions that have lost their stylistic effect. This stage is supported by Pshenichnikov (2024)'s argument stating that retranslating the text from scratch should be considered if the results of MT are inaccurate.

Following this analysis, a human post-translation editing stage is conducted, during which the translator applies appropriate strategies to restore cultural meaning and clarity of communication. This aligns with Zhao et al. (2024)'s argument regarding post-translation editing strategies, particularly in the third step, proofreading and correction, where it is necessary to optimize and adjust the machine translation output to ensure accuracy and cultural appropriateness. The most common and effective strategies include using a combination of transfer, descriptive or functional equivalence, and metaphorical equivalence to preserve figurative language. This stage ensures that the translation not only conveys the intended meaning but also preserves the cultural identity of the source text. Finally, the process concludes with the final translation, which combines the efficiency of machine translation with the interpretive depth of human expertise, resulting in an output that is communicative, culturally accurate, and audience-oriented.

CONCLUSION

This study shows that DeepL Translator is capable of translating Indonesian cultural terms in news texts with a good level of fluency, but still faces limitations in fully preserving cultural meaning. Based on Newmark's classification, the material culture category is the most dominant type of cultural term, while the most frequently used translation strategy is transference. This strategy is effective in preserving the form and basic meaning of cultural terms, but it has not yet been able to adequately convey cultural context, metaphorical nuances, and socio-pragmatic meanings, thereby potentially reducing comprehensibility for international readers. To address these limitations, this study recommends a post-translation editing process in news media. This process involves human translators supplementing machine translations by combining several strategies, such as transference with contextual elaboration (e.g., descriptive or functional equivalence) to balance authenticity with clarity.

Overall, this study makes a theoretical contribution by expanding the research on the translation of cultural terms using DeepL Translator in the context of news texts, a field that remains relatively under-researched compared to literary texts or idioms. Practically, this study offers a human-machine collaborative workflow through the application of the *couplet* strategy to improve the accuracy, clarity, and cultural appropriateness of the translation. This approach can serve as a guide for translators, editors, and media institutions in optimizing the use of machine translation for culturally

sensitive news content. Thus, this study confirms that machine translation should not be used as a final product in the translation of cultural terms in news texts, but rather as an initial step that needs to be refined through human editing to ensure the translation remains communicative while preserving cultural identity.

RECOMMENDATION

For future research, it is recommended that the study be expanded to compare the performance of several machine translation systems, such as DeepL, Google Translate, and any other platforms based on large language models, and contrast them with human translations. Future research could also involve a larger news corpus from various media outlets in Indonesia, test the effectiveness of the proposed human-machine collaboration model, and conduct a reader-response study to evaluate the extent to which international readers understand and accept the translation of cultural terms in news texts.

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DECLARATION OF GENERATIVE AI USE

The authors declare that artificial intelligence (AI) tools were used in the preparation of this manuscript. Specifically, ChatGPT was used for research outlining, improving clarity, and language refinement, while DeepL was used for translation and language editing. All outputs were reviewed, revised, and validated by the authors. The authors take full responsibility for the content of this manuscript.

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