

Evaluating the Impact of Context and Culture on the Translation Process

Assist. Lect. Nazik Aziz Darweesh

Department of English, College of Education, SAWA University, Al-Muthana, Iraq.

nazik.a@sawauniversity.edu.iq

Abstract

The study aims to evaluate the impact of context and culture on the translation process. This is achieved through a literature review of previous studies and a scient metric analysis of these studies. It also identifies the obstacles and challenges facing translation processes in diverse contexts and cultures, and offers solutions and proposals to overcome these obstacles. This is particularly true given the vital and essential role translation plays in bridging cultural communication between different peoples and civilizations. The study results indicate that the results also indicated that the most commonly used strategy was localization (45%), followed by westernization (25%), explanation (20%), and finally footnotes (10%). Context is also one of the most important factors, affecting comprehension (93%), fluency (93%), and cultural understanding (90%). This demonstrates the strong correlation between culture and context and the dynamic interaction between them. The correlation between these factors reaches 55%.

Keywords: (translation, context, culture, scient metric analysis, challenges and obstacles, solutions and proposals)

تقييم أثر السياق والثقافة في عملية الترجمة

م.م نازك عزيز درويش

قسم اللغة الإنجليزية، كلية التربية، جامعة ساوة ، المثنى، العراق.

nazik.a@sawauniversity.edu.iq

الملخص

تهدف هذه الدراسة إلى تقييم أثر السياق والثقافة على عملية الترجمة. ويتحقق ذلك من خلال مراجعة الأدبيات للدراسات السابقة وتحليلها باستخدام القياسات العلمية. كما تحدد الدراسة العقبات والتحديات التي تواجه عمليات الترجمة في سياقات وثقافات متنوعة، وتقدم حلولاً ومقترحات لتجاوز هذه العقبات. ويكتسب هذا أهمية خاصة بالنظر إلى الدور الحيوي والأساسي الذي تلعبه الترجمة في تعزيز التواصل الثقافي بين مختلف الشعوب والحضارات، وتشير نتائج الدراسة إلى أن الاستراتيجية الأكثر شيوعاً كانت التوطين بنسبة (45%)، تلتها التغريب/التمركز الغربي بنسبة (25%)، ثم التفسير بنسبة (20%)، وأخيراً الهوامش بنسبة (10%). كما يُعدّ السياق من أكثر العوامل تأثيراً في عملية الترجمة، إذ يؤثر في الفهم بنسبة (93%)، والطلاقة بنسبة (93%)، والاستيعاب الثقافي بنسبة (90%). وتُبرز هذه النتائج الارتباط الوثيق بين الثقافة والسياق، وطبيعة التفاعل الديناميكي بينهما، حيث تبلغ نسبة الارتباط بين هذين العاملين (55%).

الكلمات المفتاحية: الترجمة، السياق، الثقافة، التحليل العلمي-القياسي، التحديات والمعوقات، الحلول والمقترحات

1. Introduction

In light of the aspirations to speak and the new globalization system, translation has become one of the most important bridges through which nations and peoples can communicate, and cultures can interact (*Gondwe, G. 2025*). This is clearly evident in the influence of civilizations on one another. Translation is not simply the transfer of words from one language to another. Rather, translation has a much deeper meaning. While it may appear simple in form, it carries within it many challenges and depths, as linguistic context and cultural differences must be taken into account. Meaning alone is not shaped solely by the words themselves, but also by the speaker's or text's background, as well as the social environment, customs, and cultures. For a text to be translated accurately, without distortion, and to be clear and understandable to the reader, context and culture must be in harmony as two factors influencing the success of the translation process, enabling the actual and true meaning of the translation process to be conveyed from one text to another (*Li, C.et.al.,2024*)

This study aims to explore and analyze the impact of both culture and context on the accuracy of the translation process. It also aims to identify the factors that lead to the flexible integration of culture and context, thereby making the translation process effective and accurate. The study also aims to identify the obstacles and challenges facing translation processes and offer solutions and proposals. The study derives its importance from the importance of the subject itself, as it considers all possible contexts and their relationship to cultural differences and their impact on the effectiveness of the translation process. It also offers solutions that can be used to develop and refine translation methods. Although translation is an essential tool for communication between peoples, many translated texts may lose their meaning or be misunderstood due to neglecting the context or ignoring cultural differences. Translators may face some difficulties in conveying proverbs, idiomatic expressions, or religious symbols that may be linguistically correct but their translation into other languages is inaccurate. Therefore, the main research problem is the difficulty of achieving a balance between linguistic accuracy and cultural sensitivity in translation processes, especially in light of neglecting the context or cultural differences, as this leads to the loss of a large part of the meaning or a poor understanding of the basic meaning (*AL MAAYTAH &Shahab Ahmad.,2026*).

2. Theoretical Background and Basic Concepts

This section will present the theoretical background and basic concepts of the study. It will also provide a critical analysis of some previous studies that have addressed the topic, highlighting its strengths, weaknesses, and points of agreement and disagreement.

2.1. Basic Concepts

Basic concepts are a set of concepts that clarify the basic meaning of some terms and phrases specific to the study and enable the reader to form an insightful perspective on the study's procedures, importance, objectives, methodology, and results. Among the most important basic concepts related to the study are the following:

1. The concept of context

The concept of context can be defined as a framework within which a text can be understood. This framework includes a set of contexts, such as linguistic contexts, which refer to the position of a word in a sentence; social context, which refers to the relationship between speakers; historical context, cultural context, and functional context. Below, we will provide a detailed explanation of the types of contexts and an example of each context (*Eltigani, M., et, al 2024*).

1) Linguistic Context

Linguistic context is the framework defined by the words and sentences surrounding a phrase within a text. It helps determine the correct meaning of a word. For example, the word "change" in English might mean "change," while in other sentences it might mean "small coins."

2) Historical Context

Historical context is the context intended to understand texts according to the time period and circumstances in which they were written. Some words were written during specific periods, but these concepts have changed over time. For example, the word "caliphate," which was used in the tenth century AD, is understood within the framework of the Islamic system of government at that time, not as a modern religious or political concept (*Naveen, P., & Trojovský, P. 2024*).

3) Functional Context

Functional context relates to the purpose or function performed by a text. Is it a legal text? A commercial advertisement? A literary poem? Each genre dictates a different translation method. For example, the word "charge" in a legal text translates as "charge," while in a commercial advertisement it might mean "fee."

4) Social Context

Social context relates to relationships between speakers, class differences, and social customs. This determines the level of language used (formal or informal). For example, in French, the use of tu or vous reflects the nature of the relationship. Tu is used between friends, while vous expresses respect or formality (*Haapaniemi, R.2024*).

5) Cultural Context

Cultural context includes the values, customs, symbols, and traditions of a society. Ignoring this context may result in an incomprehensible or incorrect translation. For example, the Arabic proverb "Patience is the key to relief" cannot be translated

literally into English and is replaced by a familiar saying in the other culture, such as: "Patience pays off."

6) Environmental Context

The environmental context focuses on the spatial and geographical conditions that may influence the text or its meaning. For example, the word "desert" in English may mean "desert," but if the text is related to the environment or geography, it may carry another connotation, referring to desertification or climate, meaning it is not a specific place (*Aziz, M. 2024*).

2. The concept of culture

In translation, language cannot be separated from culture, as languages carry within them particular visions of the world according to the environment, society, and culture. Each language has its own character. This represents a major challenge for translators when they attempt to transfer or translate a text containing cultural concepts into another language (*Sanesi, M. 2024*). For example, the word "zakat" in Arabic is a clear and understandable word, whereas when translating it into other languages, it may not have precise equivalents without explaining the word in detail or having the translator adapt the word culturally (*Liu, Z. (2024)*). Therefore, in many cases, the translation process must be a visual process so that the translator can easily see the cultural differences and be able to express them. Therefore, it is necessary to employ some strategies to overcome this obstacle, which is known as the "foreignization" strategy, instead of the "domestication strategy," which attempts to make the text familiar to the target reader at the expense of its cultural specificity (*Venuti, L. (2017)*).

3. The relationship between context and culture

Context and culture are two things that can never exist independently. Instead, they always exist in a dynamic relation within the process of translation. Culture is guided by context, and context is determined by culture through cultural context. For example, a text may be filled with cultural references specific to a particular society, such as traditions, festivals, or even history. These sources cannot be translated or interpreted unless the person understands the context under which they were produced. One of the biggest issues translators have when they are translating religious, literary, or even political texts is that they might be difficult to translate unless the person understands the context under which they were produced. For example, the word "heresy" has religious connotations, in the sense that it is used to describe a deviation from the Christian belief. Conversely, "zandaqa" means deviating from the Islamic faith. Therefore, religious and literary texts are very sensitive (*Prunč, E. (2024)*). For example, when translating the Quran into other languages, this has caused immense controversy since the Quran is a holy book and deeply connected with Islamic culture. This forces the

translator sometimes to tread on thin ice between adhering to linguistic correctness and keeping the religious and cultural element intact. The translators face colossal trouble while translating literary, religious, or political works that are culturally sensitive. For example, the translation of Holy Quran into other languages provokes outrage on a massive scale due to the sanctity of the book and its connection with Islamic culture that forces the translator to tread thin ice between preserving linguistic authenticity and upholding the spiritual and cultural element (*Kononchuk, I. (2024)*).

4. Challenges and obstacles

This paper provides a detailed examination of the challenges to the translation process, both contextual and cultural. It explains the complexities posed by polysemy, functional differences in texts, linguistic ambiguity, and temporal expressions, as well as the difficulties posed by proverbs, cultural symbols, customs, communication styles, and the translation of names and brands. Understanding these challenges is necessary to provide adequate and culturally acceptable translations (*Alhaj, A. A. M. 2023*). Exploring the Challenges and Obstacles Encountered in Utilizing Artificial Intelligence Tools (AITs) in Translation Teaching from the Perspectives of Faculty Members at Saudi Universities. *Migration Letters: An International Journal of Migration Studies*, 21(3), 398-412..

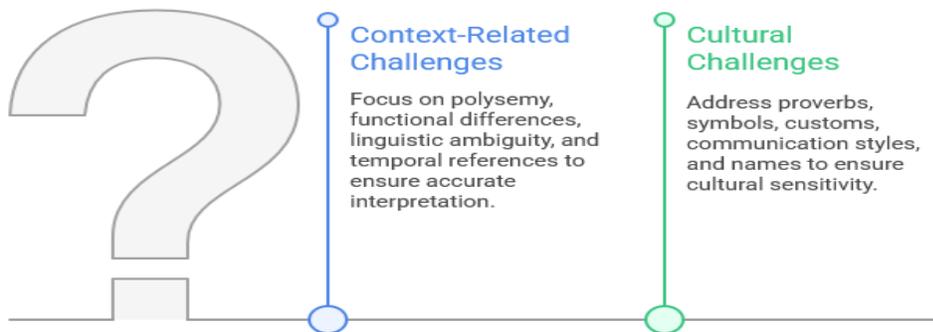


Figure 1: shows Challenges in Translation

1) Context-Related Challenges

- **Polysemy:** Polysemy, which is the existence of several unlike meanings for a single word, is a significant issue in translation. Without full understanding of the context, it is difficult to determine which meaning is being used. The translator must look through surrounding words, sentences, and overall topic of the text to interpret the author's message correctly (*Ye, Z. (2024)*). For example, the word "light" can refer to illumination (e.g., "the light from the lamp") or of minimal weight (e.g., "a light package"). The correct meaning is solely determined by where and how the word is being used. Similarly, the word "bank" can refer to a financial institution or a river's side.

- Functional Differences in Text:** The function of a text has a big say in what style of translation is required. A literary text, for instance, allows for more interpretive and creative translations compared to a legal or scientific text, which demands preciseness and adherence to specific terminology.

Translation of a poem requires sensitivity to rhythm, rhyme, and figurative language, while translation of a legal document requires accuracy and consistency in the use of legal terms. A scientific paper demands, on the contrary, a simple and clear presentation of information that can demand knowledge of the subject in some cases (*Ndjama, J. D. N. (2025)*).
 - Linguistic Ambiguity:** Linguistic ambiguity arises when a text is open to more than one interpretation. This can be due to vague language, ambiguous sentence structure, or the use of figurative language. Translators must exercise judgment and make informed decisions about which interpretation best captures the meaning of the author. For example, the sentence "Visiting relatives are boring" can have two meanings: either the act of visiting relatives is boring, or the relatives themselves are boring. The translator must examine the broader context in order to determine what was intended and convey it accordingly in the target language.
 - Temporal and Historical References:** Words and expressions can shift over time, acquiring new meanings or losing previous ones. Translators must be aware of the time period when a text was written in order to avoid anachronisms and render the translation intelligible to the audience being addressed.

For example, a term used in the 18th century may be obsolete or have an alternate meaning in contemporary language. Translators must study historical word and phrase usage to properly present the original meaning.
- 2) **Cultural Challenges**
- Proverbs and Idiomatic Expressions:** Idiomatic language and proverbs are culture-bound and do not typically have literal translations in other languages. Translators must become creative to convey the meaning and impact of such phrases without succumbing to the pitfall of literal translations that sound ridiculous or lose their punch.

For example, English idiom "to kill two birds with one stone" is to do two things by doing one thing. Some languages may have the equivalent idiom, but some may require a more explanatory translation to get the equivalent meaning (*Abadou, F. 2024*).
 - Religious and Political Symbols:** Political and religious symbols carry sensitive meanings that vary across cultures. Translators should be aware of the variations and avoid the use of symbols that are offensive or easily misconstrued in the target culture.

For example, a symbol that is greatly valued in one culture will be taboo in another. Translators need to walk very delicately and sensitively when dealing with these symbols, typically in consultation with cultural experts to ensure the translation is appropriate.

- **Customs and Traditions:** Customs and traditions are deeply ingrained in a particular society and may be unfamiliar to readers from another nation. Translators must provide explanations or adaptations so that these concepts become understandable and pleasurable for the target readership (*Kundan, Z., et, al, 2025*) For example, the Egyptian "sebou," which is the celebration of a child's first birthday, is not practiced in many other cultures. Translators would need to explain the meaning of this celebration so that readers from other cultures can understand its applicability.
- **Differences in Communication Style:** Styles of communication also vary significantly across cultures. Some cultures, for example, English-speaking cultures, tend towards directness, while others, like Arabic or Japanese cultures, tend towards politeness and insinuation. Translators must adapt their style to what the target audience is accustomed to.

The literal translation of a polite request in Japanese sounds bossy or rude in English. Translators must adjust the tone and the wording so that the message is expressed appropriately in the target language(*Karwad, A. I. 2025*).

- **Names and Brands :** Brands and names may need to be altered or "Arabized" to become recognizable and appealing to the target market. This may be accomplished through transliteration, phonetic alteration, or creating entirely new names that would be appealing to the target culture(*Souri, M., & Soltani, M. 2024*)..

For example, a Western brand name that is difficult to pronounce in Arabic may be adapted to a more familiar and easier-to-pronounce version. This needs to be remembered in terms of cultural sensitivities and advertising.

2.2. Critical analysis of previous studies

Numerous studies have examined the impact of both culture and context on translation, revealing several dimensions related to the challenges facing translation processes and translators, particularly with regard to culture and context. (*Ning L., 2021*) study, which aimed to clarify the impact of culture and context on the quality and accuracy of translation, highlighted the importance of culturally charged words in translation between English and Chinese, taking into account localization and westernization strategies. This is one of the strengths of the study, but the study had weaknesses, such as focusing only on the material aspect and neglecting intangible culture. Meanwhile, another study by (*Honarjou .2023*), which aimed to identify the specific cultural elements in the novel *The Alchemist* in Persian translation, relied on a qualitative and quantitative analysis methodology.

This was one of the strengths of this study, but the drawback of this study was that it was limited to a single literary text, which limits the generality and comprehensiveness of the results (*Yousef.2012*) study, which aimed to address the literary, cultural, and institutional challenges in translation between Arabic and English, despite being a relatively old study, succeeded in identifying a set of solutions and proposals for addressing literary and cultural challenges, such as educating translators and linking different contexts. It was distinguished by its comprehensiveness, as it addressed the topic from several perspectives. However, the weakness of this study is that it did not address the developments of modern machine translation, given its age. In contrast, a recent review by (*Smith, J., & Rahman, A.2024*). clarified the challenges facing machine translation in dealing with context and culture, focusing largely on the technical dimensions. This focus was one of the study's strengths, but its weakness was that it neglected the human dimension and readers' experiences. These studies combined demonstrate that understanding the cultural context in translation requires a certain kind of integration between text analysis and quantitative evaluation, taking into account technical, institutional, and cultural considerations and the need to involve readers in the process of conveying cultural meaning.

3. Methodology

The methodology in this study relies on a primary methodology, namely scientometric analysis of previous studies, to extract and explore the relationship between context and culture in the effectiveness and accuracy of translation and its role in conveying the true meaning and avoiding misunderstandings. It also uses some auxiliary methodologies, such as the descriptive methodology for describing data, the quantitative methodology for collecting data, the analytical methodology for analyzing data, and the comparative methodology for comparing results (*Zhu, X., & Aryadoust, V. 2023*).

3.1. The applied framework of the study

The applied framework of the study is a framework that clarifies the actual study procedures, starting with defining the objective and formulating the research problem, proceeding to collecting and processing data from various sources, then determining the study's specific tools, designing the experiment, recording the results, analyzing and evaluating the results, drawing conclusions, and presenting recommendations. Figure ٧ illustrates the applied framework of the study.



Figure ٢: shows The applied framework of the study

3.2. Procedures

According to Figure ٢ above, which illustrates the method, after defining the objective and formulating the research problem, the procedures were carried out as follows:

1. Data collection and processing

Data was collected from various sources, including online databases, previous studies, and books, to conduct the Scientometric analysis, in addition to other data related to the analysis process and the method for extracting results. The data was then processed technically and statistically, eliminating any anomalies or unreliable data.

2. determining the study's specific tools.

A set of tools was identified to be used in the applied procedures of the study, including the data collection tools mentioned previously: books, previous studies, online databases, and the opinions of experts and supervisors, in addition to a set of programs such as the statistical analysis programs SPSS and Excel.

3. Scient metric analysis.

This analysis involves reviewing previous studies to extract a set of results and consider them as raw data for analysis and evaluation. In this study, a group of recent studies (from 2020 to 2025) were identified and reviewed on the impact of context and culture on the accuracy and quality of translation.

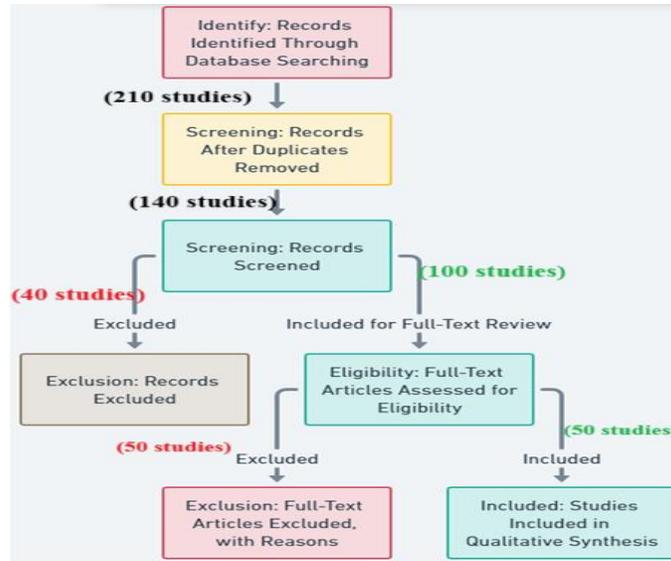


Figure 3: shows Prisma diagram

A set of inclusion and exclusion criteria were taken into account, as follows:

1) **Inclusion criteria:**

Recent studies from 2020 to 2025, reliable studies. Reliability was determined based on the number of citations, the nature of the journal of publication, and the name of the author, in addition to studies directly related to the topic of context and culture.

2) **Exclusion Criteria:**

Studies with bias in data or results, as well as unreliable studies, duplicate studies, and studies that addressed a single aspect, such as culture or context.

3) **The scient metric analysis using Prisma diagram**

The scientometric analysis using Prisma diagram was performed using the Prisma diagram shown in Figure 3. The diagram and analysis included four main stages, as follows:

- **Identification**

Databases such as Google Scholar, ResearchGate, and Scopus were identified. A search using a set of keywords such as context, culture, and the role of translation was used (Mohsen, M.et,al., 2023).

. The number of identified studies reached 210.

- **Screening**

After excluding duplicate and irrelevant studies according to the meeting and exclusion criteria, the number of studies filtered down to 140 studies.

- **Eligibility**

After reviewing, vetting, and reviewing full texts, and excluding all studies that did not meet the inclusion criteria, the final number of studies reached 100 reliable and robust studies.

• Included Studies

The final number of studies included in the qualitative and quantitative analysis reached 10 studies.

4. recording, analyzing and evaluating the results

After completing the Prisma plan, the centimetric analysis is carried out and the findings of the identified studies (50) are recorded, which are the final studies included, and those results are technically and statistically analyzed and evaluated to draw conclusions and present recommendations.

3.3. Statistical analysis

Statistical analysis is an analysis in which a set of statistical tests are used using specialized programs such as SPSS or Excel to verify the validity, significance, and accuracy of the data and ensure the accuracy and reliability of the results. Through the statistical analysis of the study, one-way analysis of variance (ANOVA) will be used to determine the significance of the data using what is called the p-value, the threshold value of which is 5% (*Nisbet, R.2024*). The lower the value is below 5%, the more significant and statistically significant the data are. The variance (f) is also determined, and the larger the coefficient of variation, the more significant and statistically significant the data are. Then, the correlation is tested using the Pearson correlation coefficient, which is determined from the equation:

$$r = \frac{(x - xi) \cdot (y - yi)}{\sqrt{\sum(Xi - X^-)^2 \cdot \sum(Yi - Y^-)^2}}$$

Where

- r: correlation coefficient (its value is between -1 and +1).
- Xi, Yi: individual values of the variables.
- X⁻, Y⁻: The arithmetic mean of both X and Y

Also, the linear regression test is used to determine the final results, averages, standard deviations, correlation coefficients, and the linear regression equation can be represented by the relationship:

$$Y = a + b1X1 + b2X2 + b3X3 + \varepsilon$$

where:

- Y: Dependent variable (translation quality and effectiveness).
- a: slope constant (intercept).
- b1, b2: Regression coefficients for each independent variable.
- X1, X2, X3 : The independent variables are context and culture.
- ε: random error (represents the effect of unobserved factors).

4.Results and Discussion

In this section, the results will be presented, discussed, and evaluated. The results will show the correlation and influence of context and culture, in addition to the translator's experience with the quality of translation in terms of accuracy, fluency, and comprehension, and the percentages of influence of each of the three variables on the quality of translation.

Table 1: results of the influence of context, culture, and experience on translation quality

Scale/Variable	(Context)	(Culture)	(Experience)	F	p-value
Fluency	93%	91%	91%	11.2	0.001
Adequacy	90%	91%	88%	17.8	0.001
Cultural Equivalence)	90%	92%	90%	18.6	<0.001
Comprehension	93%	93%	92%	16.36	<0.002

The previous table shows the percentages of influence of the three variables: context, culture, and translator experience on the quality of translation in terms of comprehension, fluency, competence, and cultural understanding. The table shows that the three variables interact dynamically and affect the quality of culture to a large extent, and that all P-VALUE values are less than the threshold value of 5%, and the variance has high values, which means that the data and results are very important and have statistical differences and significance (*Le, D. 2024*). Investigating how cultural differences influence the translation process and the strategies used by translators to bridge cultural gaps. *Journal of Translation and Language Studies*, 5(3), 26-36.

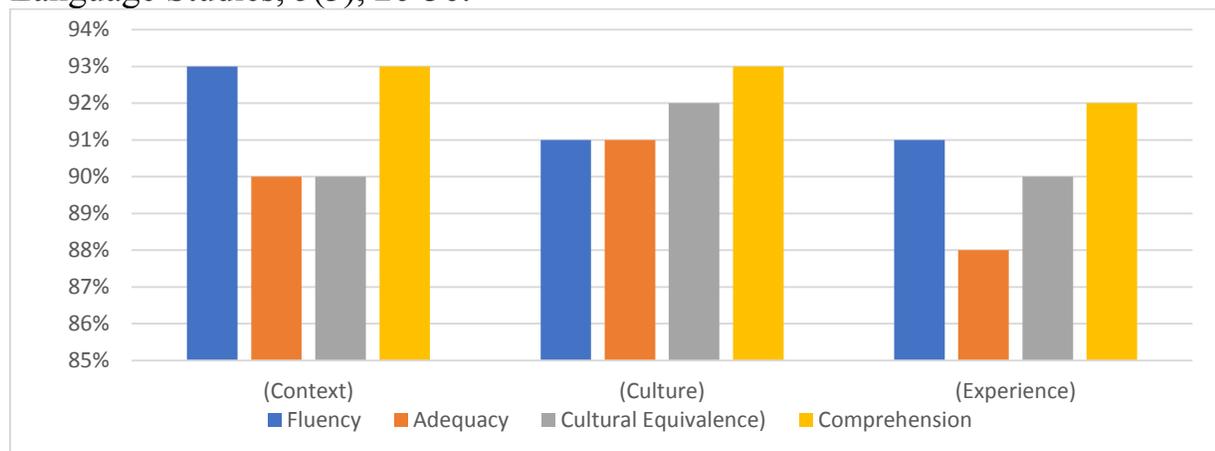


Figure 3: shows results of the influence of context, culture, and experience on translation quality

Figure 3 shows a comparison between the three variables: context, culture, and translator experience, and their relative impact on the quality of translation in terms of fluency, comprehension, and cultural competence. The figure shows that experience and culture have the greatest impact, at 91%, on fluency, while context

and culture have an impact of 91% and 90% on proficiency, respectively. The same applies to comprehension, with each having an impact of 93%, which demonstrates the importance of culture and context. Experience alone is not enough, even though it is a very important variable that impacts the quality of translation (Marolova, A., et, al, 2023).

Table 2 : Comparison Culturally Aware Human Translation vs. Machine Translation (Expected Values Mean \pm Standard Deviation)

<i>gauge</i>	<i>Human translation (with high cultural sensitivity)</i>	<i>Human translation (low cultural sensitivity)</i>	<i>Machine translation</i>	<i>f</i>	<i>p-value</i>
<i>Fluency (1-5)</i>	4.6 \pm 0.4	4.0 \pm 0.6	3.5 \pm 0.7	8.9	0.002
<i>Adequacy (1-5)</i>	4.5 \pm 0.5	3.8 \pm 0.7	3.2 \pm 0.8	9.2	0.019
<i>Cultural Equivalence (1-5)</i>	4.4 \pm 0.5	2.9 \pm 0.8	2.5 \pm 0.9	9.8	0.018
<i>Comprehension (%)</i>	92% \pm 6	78% \pm 10	65% \pm 12	17.3	<0.001
<i>CSI Errors (%)</i>	5% \pm 3	18% \pm 7	30% \pm 10	13.4	0.001

Table 2 shows a comparison between human translation supported by cultural understanding and machine translation.

It is clear that human translation supported by cultural understanding outperforms machine translation in all measures, as machine translation shows higher rates of cultural errors, which negatively affects the reader's understanding. It is also clear that all P-VALUE values are less than the threshold value of 5%, and the variance has high values, which means that the data and results are very important and have statistical differences and significance.

Table3: Strategies for dealing with cultural elements and their results (% usage, average reader acceptance 1–5)

<i>Strategy</i>	<i>Usage rate (%)</i>	<i>Readers' Acceptance (Average)</i>	<i>f</i>	<i>p-value</i>
<i>Domestication</i>	45%	4.1	7.8	0.031
<i>Foreignization</i>	25%	3.2	16.45	0.001
<i>Explication</i>	20%	4	14.58	0.002
<i>Footnotes</i>	10%	3.8	11.33	0.018

The table illustrates the different translation strategies, their use, and acceptance by readers. The results show that domestication is the most widely used strategy at 45% of the whole and has a relatively high average acceptance rate of 4.1,

indicating that readers accept culturally translated texts. The foreignization strategy, on the other hand, is the least used strategy (3.2), although it has theoretical importance. It further demonstrated strong statistical significance ($p=0.001$), thus denoting its differential influence over reading experience. Explanation was also found to be well-balanced in terms of use rate (20%) and accept rate (4.0), as well as strong significance ($p=0.002$), and therefore is an extremely effective method towards explaining meaning. Finally, footnotes carry a lesser use rate (10%), but still maintain a high accept rate (3.8) and statistically significant ($p=0.018$). This is to say that translators employ domestication to ensure reader satisfaction and other strategies are secondary tools depending on the nature of the text and the needs of the readers (Asadova, A. 2024).

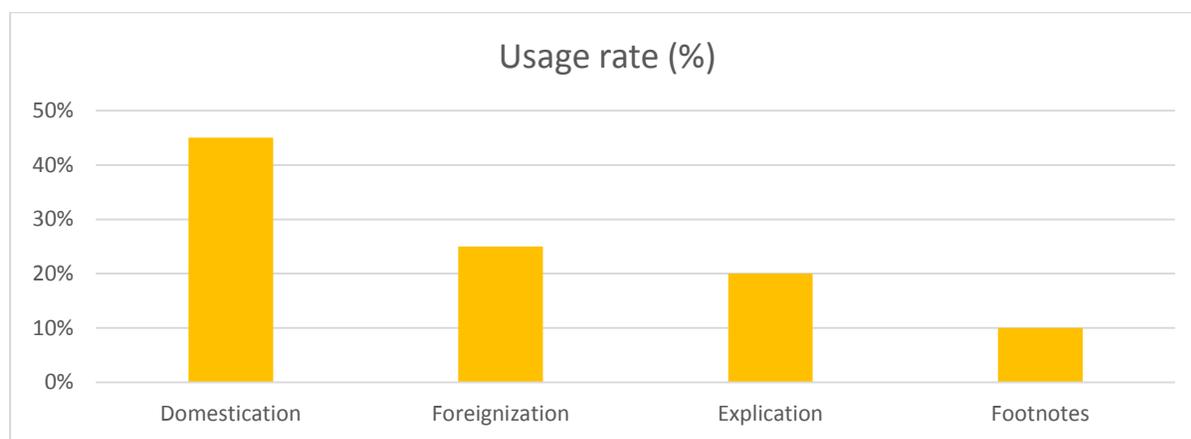


Figure 4: Strategies for dealing with cultural elements and their using rate

The figure shows domestication as the most utilized translation strategy, with 45% being the majority, which was an indicator of translators' inclination to adapt texts into the local culture to facilitate reader understanding. Foreignization is followed by foreignization, accounting for 25% of the translations, which suggests that while it occurs less often, it is still used in nearly a quarter of the cases to preserve the authenticity of the text. Explanation is, however, 20% of the translations, which indicates its role as an intermediary between elucidation and preserving the message as stated. On the other hand, footnote use is low at 10%, which indicates that they are an additional choice translators use in special circumstances. From the figure, it is clear that translators prefer methods of enhancing cultural proximity and simplicity of reception more than they prefer methods of potentially burdening the reader.

Table 5: Correlations between variables

Variable	Translation Quality	(Context Level effect)	Translator's experience	(Cultural effect)
Translation Quality	1			

Context Level	0.72	1		
Translator Experience (Years)	0.65	0.4	1	
Cultural Dimension	-0.81	-0.55	-0.3	1

The table shows the correlation coefficients between translation quality and context, translator experience, and cultural dimension. We can see a high positive correlation between translation quality and degree of context ($r = 0.72$), confirming that clarity of context enhances translation quality and accuracy. Positive correlation is also noted between translation quality and translator experience ($r = 0.65$), confirming that experience accumulated translates to higher performance. Conversely, there is a strong negative correlation between translation quality and cultural dimension ($r = -0.81$), suggesting that increasing cultural distance between source text and target audience detracts from translation quality. There are also negative correlations between the cultural dimension and the other variables ($r = -0.55$ for context, and $r = -0.30$ for experience), indicating that cultural challenges are a common challenge even if there is a favorable context or a high degree of experience. Cumulatively, the table shows that successful translation is a result of both dense context and field experience, while cultural differences are the greatest impediment to translators (*Prykhodko, V.2024*).

Table 6: Multiple linear regression results

Coefficient	Estimated value (β)	standard error	t	p-value
Intercept (a)	1.2	0.3	4	<0.001
Context Level (1–3) (b1)	0.85	0.1	8.5	<0.001
Translator Experience (years) (b2)	0.05	0.02	2.5	0.014
Cultural Distance (scale 0–1) (b3)	-1.10	0.25	-4.40	<0.001
Estimated R^2 model	0.62			

The table shows the output of a multiple linear regression for estimating the influence of context, translator experience, and cultural dimension on the quality of translation. The Intercept (Constant term = 1.2) is very significant ($p < 0.001$), indicating a stable basis in the model even in the absence of variables. Context level ($\beta = 0.85$) is the strongest positive contributor, and it is a significant improvement factor for translation quality with very strong significance ($p < 0.001$). In contrast, translator experience ($\beta = 0.05$) has a very weak but significant positive effect ($p = 0.014$), indicating that experience contributes to incremental quality over the years. Cultural dimension ($\beta = -1.10$) is the strongest negative predictor, with an increase in the cultural gap leading to a dramatic drop in translation quality ($p < 0.001$). Finally, the coefficient of determination ($R^2 = 0.62$) suggests that the model explains approximately 62% of the variability in

translation quality, which is an acceptable level showing the model's predictive capability.

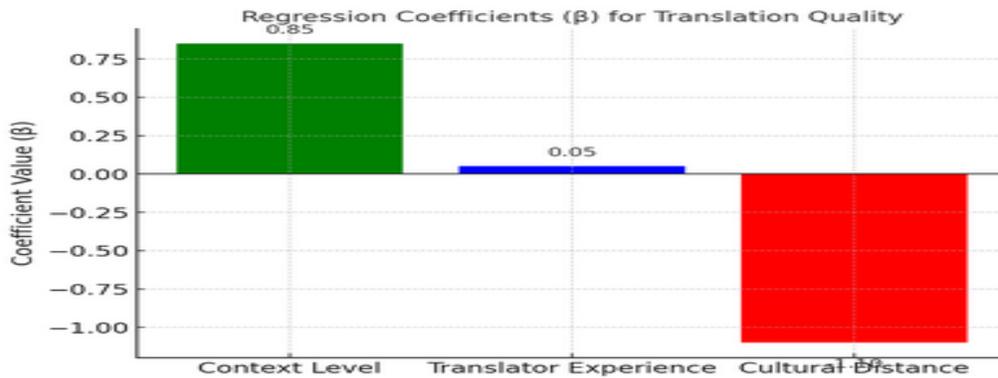


Figure 5 shows the regression coefficients (β) for the three independent variables:

Figure 5 shows the regression coefficients (β) for the three independent variables. It is clear from the figure that the level of context has a strong positive effect on the quality of translation, as the beta value is equal to 85%, which means that increasing the clarity of the context significantly raises the level of quality. Meanwhile, the translator's experience has a positive but relatively weak effect, as the beta value is 5%, which indicates that experience contributes to improving the quality of translation, but to a lesser degree. As for the cultural dimension, it has a strong negative effect, as the beta value is equal to (β = -1.10), which means that the cultural gap reduces the quality of translation to a large extent.

5. Conclusions

The analysis results indicate that human translation supported by a high level of cultural understanding outperforms all metrics. Machine translation exhibits higher rates of cultural errors and a negative impact on reader comprehension (Benko, L., 2024). Contextual level is also the most important factor, as all its correlations are strong and highly statistically significant. Comprehension influences this factor by 93%, fluency by 93%, and cultural understanding by 90%. This demonstrates the significant correlation between culture and context and the dynamic interaction between them. The correlation between these factors reaches 55%. When comparing the three variables—context, culture, and translator experience—and their relative influence and weight on translation quality in terms of fluency, comprehension, cultural understanding, and accuracy, it becomes clear that experience and culture have the greatest influence, accounting for 91% of fluency, while context and culture influence proficiency by 91% and 90%, respectively. The same applies to comprehension, with each having a 93% influence, demonstrating the importance of culture and context. Experience alone is not sufficient, despite

being a critical variable influencing translation quality (*Smith, J., & Rahman, A.2024*).

The results also reveal that the most commonly used translation strategy is localization, accounting for 45% of the translation strategies, followed by tweeting at 25%, explanation at 20%, and clarification and footnotes, which rank the strategies in order of importance. The use of residual analysis to improve the error rate accuracy of machine translation. Scientific Report (*Jiménez-Crespo, M. A. 2024*).

6.Recommendations

According to this study, it is thus recommended that there should be a focus on providing translators clear and full context through pre-explanations and explanations of texts because context plays a fundamental role in driving quality upwards. Moreover, it is recommended that more ongoing training for translators should be done, linking it to actual case studies that reflect diverse contextual situations rather than relying on years of experience built up. Concerning cultural issues, one must develop specialized training programs in cultural competence in addition to employing adaptive translation methods that avoid the dominance of the cultural difference between texts and readers. Finally, one suggests extending the scope of upcoming research to include other variables such as text type and target audience so as to contribute to a more penetrating insight into the determinants of translation quality.

Conflict of Interest

There is no conflict of interest.

References

- Abadou, F. (2024). Investigating the Role of Translation in Teaching Culture to Foreign Language Learners at Institutions of Higher Education in Algeria. *Turkish Academic Research Review*, 9(3), 259-276.
- Alhaj, A. A. M. (2023). Exploring the Challenges and Obstacles Encountered in Utilizing Artificial Intelligence Tools (AITs) in Translation Teaching from the Perspectives of Faculty Members at Saudi Universities. *Migration Letters: An International Journal of Migration Studies*, 21(3), 398-412.
- AL MAAYTAH, S. A. (2026). Evaluating Three Neural Machine Translation Platforms for English-Arabic Translation: A Comparative Study of Linguistic Accuracy and Cultural Fidelity. *World*, 16(2).
- Asadova, A. (2024). The Translator as Cultural Mediator. *Journal of Foreign Language Teaching and Applied Linguistics*, 4.
- Aziz, M. M. A. (2024). Translating peace idiomatic expressions from English into Arabic: A context-based approach. *Journal of Language Studies*, 8(2), 304-326.

- Benko, L., Munkova, D., Munk, M., Benkova, L., & Hajek, P. (2024). The use of residual analysis to improve the error rate accuracy of machine translation. *Scientific Reports*, 14(1), 9293.
- Eltigani, M. A., Ibrahim, I., Al-Khayyat, M., & Ibrahim, R. (2024). Examining the Importance of Context Education in the Translation Process (A Descriptive Analytical Study). *Cadernos de Educação Tecnologia e Sociedade*, 17(se5), 105-118.
- Gondwe, G. (2025). AI in African Newsrooms: Evaluating Translation Accuracy, Reliability, and Cultural Sensitivity in Tanzanian Media. *Journalism Practice*, 1-20.
- Haapaniemi, R. (2024). Translation as meaning-construction under co-textual and contextual constraints: A model for a material approach to translation. *Translation Studies*, 17(1), 20-36.
- Honarjou, M. (2023). Translation of culture-specific items in Paulo Coelho's *The Alchemist*: A Persian perspective. *International Journal of Comparative Literature and Translation Studies*, 11(1), 25–34.
- Jiménez-Crespo, M. A. (2024). *Localization in translation*. Routledge.
- Karwad, A. I. (2025). Challenges Students Encounter When Translating Idiomatic Expression. *Journal of the Libyan Academy of Bani Walid (JLABW)*, 229-242.
- Kononchuk, I. (2024). Translation and adaptation: Intersecting relationships. *International Journal of Philology*, 15(2), 45-52.
- undan, Z., Hossain, M. S., Shahidul Islam, M., Alam, M. N., & Parvez, M. O. (2025). Traveling with ChatGPT and providing translation services for travelers. *Tourism Review*, 80(4), 828-846.
- Le, D. (2024). Investigating how cultural differences influence the translation process and the strategies used by translators to bridge cultural gaps. *Journal of Translation and Language Studies*, 5(3), 26-36.
- Li, C., Hu, J., He, A., He, C., & Zhuang, W. (2025). Mapping the scientific landscape and evolution of the *International Journal of Surgery*: a scientometric analysis (2004–2024). *International Journal of Surgery*, 111(1), 567-580.
- Li, N. (2021). Translation of culture-loaded words between English and Chinese: Strategies and challenges. *Journal of Language and Cultural Studies*, 13(2), 45–60.
- Liu, Z. (2024). Research on the influence of cultural differences on cross-cultural translation and coping strategies. *Journal of Higher Education Teaching*, 1(3), 236-240.
- Marolova, A., Vitanova-Ringaceva, D., Kuzmanovska, D., & Ivanova, B. (2024). Intercultural translation—achieving dynamic equivalence in translating

specific terms of material and spiritual culture. *Education and New Trends* 2024, 2(1), 57-61.

- Mohsen, M. A., Althebi, S., & Albahooth, M. (2023). A scientometric study of three decades of machine translation research: Trending issues, hotspot research, and co-citation analysis. *Cogent Arts & Humanities*, 10(1), 2242620.
- Naveen, P., & Trojovský, P. (2024). Overview and challenges of machine translation for contextually appropriate translations. *iScience*, 27(10).
- Ndjama, J. D. N. (2025). The Key Obstacles to using Emerging Artificial Intelligence Tools in Foreign Language Learning.
- Nisbet, R., Miner, G. D., & McCormick, K. (2024). *Handbook of Statistical Analysis: AI and ML Applications*. Elsevier.
- Prunč, E. (2024). On the construction of translation cultures. *Translation in Society*, 3(2), 236-254.
- Prykhodko, V., Kulakevych, L., Litkovych, Y., Kanonik, N., & Horodniuk, N. (2024). Cultural transfer in translation: innovative approaches to preserving intercultural aspects of a text. *Synesis*, 16(1), 47-60.
- Sanesi, M. (2024). Enhancing translation pedagogy through culture-specific terms. *Педагогика. Вопросы теории и практики*, 9(4), 287-294.
- Smith, J., & Rahman, A. (2024). Context and culture in machine translation: A systematic review of challenges and solutions. *Journal of Computational Linguistics*, 50(1), 75–92.
- Souri, M., & Soltani, M. (2024). Clinical translation of gold nanoparticles: obstacles and perspectives. In *Gold nanoparticles for drug delivery* (pp. 495-509). Academic Press.
- Venuti, L. (2017). *The translator's invisibility: A history of translation*. Routledge.
- Ye, Z. (2024). Language barriers in intercultural communication and their translation strategies. In *International Conference on Finance and Economics, Humanistic Sociology and Educational Development (EHSED 2024)* (Vol. 6, No. 1).
- Yousef, D. (2012). Cultural and contextual challenges in Arabic–English translation. *Arab World English Journal*, 3(4), 100–118.