# STATISTICAL ANALYSIS OF INFOPROMOTIONAL TEXTS TRANSLATIONS

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**Abstract**

The development of tourism is an economic priority in many countries. Due to an increase in mobility on our continent, all countries have become more available to foreign visitors. Slovakia meets all the conditions for the development of tourism, and it is in the best interest for all parties to guarantee infopromotional texts on a professional linguistic level. Following the comparison we carried out, in translation studies there are a few perspectives and categorizations of translation methods that do not differ from each other very much. In the analysis of tourist info-promotional materials, the found culturemes [5] were organised into groups and translation methods were identified as well. Translations of texts presenting national values, such as natural and cultural heritage of the country, are not carried out by a professional translator which could lead to indecipherable and incomprehensible text. The aim of this presented article is to assess the basis of non-parametric statistical methods analyses and to statistically assess the translation methods applied in infopromotional texts translations.

**Key words:** statistical analysis, non-parametric statistical methods, tourism, translation studies

**JEL Code:** C14, L83

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## Introduction

In many countries tourism has become one of the most important national industries providing a significant state income, and thus it deserves divine attention. We assume that tourist promotional material (ex: Slovakia) is bound to be translated by professionals. [10]

Due to the globalization tendencies and literally a revolutionary expansion of multilingual communication translation studies as a scientific discipline, (which a few years ago still fought for its identity) nowadays has become one of the most important disciplines from the point of view of theory, practice theory and the methodology theory. [4]

Socio-cultural changes related to the globalization of the world economy and faster information flow, demonstrably affected the content and formal aspects of info-promotional materials. For this reason, we decided to carry out a statistical analysis of tourist info-promotional texts. [8]

With the translation in the light of the paradigms of globalisation engaged [6], too.

# 1 Material and methods

The aim of this article is to statistically analyse and evaluate the translation methods employed in translation of info-promotional materials in Slovakia. The main interest is tourist texts (leaflets, brochures and tourist guides) in the English language published in our country or abroad. In comparative analysis we focus mainly on translation of culturally specific items (culturemes) because we assume the approach to their translation is determined by language usage and cultural tradition of the translator's country. We assume that Slovak and British authors of such materials and their translations proceed from own nomenclature and culture; therefore, their approach and methods can be significantly different.

In our working hypothesis we assume the groups of respondents (natives, non-natives and professionals with linguistic education) differ from each other in their preferences of translation methods. Our hypothesis was tested on the significance level $\alpha=0.05$.

In order to meet our expectations, a research study was carried out in the form of a questionnaire. Its body contained the questions. The methodological procedure was determined by our goals. The obtained data from the questionnaire was further processed in tables and submitted to statistical analysis. We decided to employ non-parametric statistical methods [7] as this approach seemed to be the most convenient. Initially, the sign test was used; however, its results are not very precise and thus less reliable. For that reason, we used the Dixon test eliminating extreme values negatively affecting our further operations. [3] In the next step by employing the Wilcoxon α-test we found out whether there are significant changes in translation methods between the set groups of translators. Due to spatial limitations set in this article, we will focus on and analyse a translation method known as compensation.

# 2 Results and discussion

## 2.1 Theoretical assumptions

Following the comparison we carried out, in translation studies there are a few perspectives and categorizations of translation methods that do not differ from each other very much. [2] In the analysis of tourist info-promotional materials, the found culturemes were organised into groups and translation methods were identified as well. From the excerpted material we defined the following translation procedures:

- repetition: a Slovak word is repeated without any change or addition, e.g. *koliba* » *koliba*; [9]

- literal translation: represents a word for word translation method;
- addition: the translator repeats the original word and adds something new (usually a translated generic substantive); [10]
- repetition with literal translation: a combination of two translation methods in which the original name is repeated and followed by its translation in parentheses (or vice versa), e.g. *Slovenský raj* (Slovak Paradise);
- compensation: is a partial translation in which usually a denominator is translated because it bears a significant information, e.g. *Kremnické hills*;
- compensation with modification: is similar to compensation but the difference is that the translator changes the attribute word class, i.e. an adjective becomes a substantive respecting thus English word-formation, e.g. Orava Dam; Whith the compensation as a translation procedures engaged in their work [1]
- transliteration: transcript from different alphabet's by using symbols and signs belonging to another language, e.g. *lokše* » lokshe. Even though this method is not widely used, it does not disgrace its value.
- transliteration with compensation: an adjective in expression is transcribed by using English graphemes and a denominator is translated, e.g. *Grasalkovičov palác* » Grassalkovich Palace.

Translation pedagogy needs to be based on a theory of translation and a theory of "translation learning". [11] In translation theory there are the above types of translation procedures. In the next part we focus on the presentation of the researched results regarding a translation method known as compensation.

## 2.2 Statistical analysis results

In the statistical analysis focused on evaluation of compensation, we studied the relation between natives and non-natives by means of the sign test. Our findings are shown in Tab. 1.

**Tab. 1: Sign test analysis**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **A** | **Natives [%]** | **21.5** | **43** | **79.3** | **41.3** | **60.3** | **25.6** | **42.1** |
| **B** | **Non-natives [%]** | , | 39.5 | 73.7 | 38.2 | 55.3 | 35.5 | 36.8 |
| **A-B** | | **- 18** | **+ 3.5** | **+ 5.6** | **+ 3.1** | **+ 5** | **- 9.9** | **+ 5.3** |

Source: own research and processing

$n = 7$ $m_+ = 5$ $m_- = 2$ $m = (2.5) = 2$ $m\ (0.05) = 0 < m = 2$

The obtained results of the sign test prove the validity of hypothesis $H_0$

Next, we analysed the same groups of respondents by means of the Wilcoxon α-test. Our findings are shown in Tab. 2.

**Tab. 2: Wilcoxon α-test analysis**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **A** | **Natives [%]** | **21.5** | **43** | **79.3** | **41.3** | **60.3** | **25.6** | **42.1** |
| **B** | **Non-natives [%]** | 39.5 | 39.5 | 73.7 | 38.2 | 55.3 | 35.5 | 36.8 |
| **B-A** | | 18 | -3.5 | -5.6 | -3.1 | -5 | 9.9 | -5.3 |
| **Ordered B-A** | | 3.1 | 3.5 | 5 | 5.3 | 5.6 | 9.9 | 18 |
| **Rank** | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **Ordered rank** | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **$T_+$** | | **1** | | | | | **6** | |
| **$T_-$** | | | **2** | **3** | **4** | **5** | | **7** |

Source: own research and processing

$$T_+ \frac{n(n+1)}{2} - T_- = \frac{7.8}{2} - 21 = 7$$

$$T_- \frac{n(n+1)}{2} - T_+ = \frac{7.8}{2} - 7 = 21$$

$$T = \min(T_+, T_-) = 7$$

$T < T(0{,}05) = 7 > 2{,}1 \Rightarrow H_0$ is proved

Both tests proved that native speakers and non-natives speakers use compensation identically, 39% and 38%, respectively.

The next step of the statistical analysis involved the relation between natives and professionals. Analogically, we employed the sign test which was followed by the Wilcoxon α-test.

**Tab. 3: Sign test analysis**

| A | Natives [%] | 21.5 | 43 | 79.3 | 41.3 | 60.3 | 25.6 | 42.1 |
|---|---|---|---|---|---|---|---|---|
| B | Professionals [%] | 23.1 | 7.7 | 53.9 | 46.2 | 53.9 | 15.4 | 30.8 |
| A-B | | - 1.6 | + 35.3 | + 25.4 | - 4.9 | + 6.4 | + 10.2 | + 11.3 |

Source: own research and processing

$n = 7 \quad m_+ = 5 \quad m_- = 2 \quad m = (2.5) = 2 \quad m\ (0.05) = 0 < m = 2$

**Tab. 4: Wilcoxon α-test analysis**

| A | Natives [%] | 21.5 | 43 | 79.3 | 41.3 | 60.3 | 25.6 | 42.1 |
|---|---|---|---|---|---|---|---|---|
| B | Professionals [%] | 23.1 | 7.7 | 53.9 | 46.2 | 53.9 | 15.4 | 30.8 |
| B-A | | 1.6 | -35.3 | -25.4 | 4.9 | -6.4 | -10.2 | -11.3 |
| Ordered B-A | | 1.6 | 4.9 | 6.4 | 10.2 | 11.3 | 25.4 | 35.3 |
| Rank | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Ordered rank | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| $T_+$ | | **1** | | | **4** | | | |
| $T_-$ | | | **2** | **3** | | **5** | **6** | **7** |

Source: own research and processing

$$T_+ \frac{n(n+1)}{2} - T_- = \frac{7.8}{2} - 23 = 5$$

$$T_- \frac{n(n+1)}{2} - T_+ = \frac{7.8}{2} - 5 = 23$$

$$T = \min(T_+, T_-) = 5$$

$T < T(0{,}05) = 5 > 2{,}1 \Rightarrow H_0$ is proved.

The results of the sign test and Wilcoxon α-test proved the validity of hypothesis $H_0$

Another statistical analysis dealing with non-native speakers and professionals is shown in Tab 5 - results of the sign test and Tab 6 - results of the Wilcoxon α-test.

**Tab. 5: Sign test analysis**

| **A** | **Non-natives [%]** | **39.5** | **39.5** | **73.7** | **38.2** | **55.3** | **35.5** | **36.8** |
|---|---|---|---|---|---|---|---|---|
| **B** | **Professionals [%]** | 23.1 | 7.7 | 53.9 | 46.2 | 53.9 | 15.4 | 30.8 |
| **A-B** | | **+ 16.4** | **+ 31.8** | **+ 19.8** | **- 8** | **+ 1.4** | **+ 20.1** | **+ 6** |

Source: own research and processing

$n = 7$ $m_+ = 6$ $m_- = 1$ $m = (1.6) = 1$ $m\ (0.05) = 0 < m = 1$

**Tab. 6: Wilcoxon α-test analysis**

| **A** | **Non-natives [%]** | **39.5** | **39.5** | **73.7** | **38.2** | **55.3** | **35.5** | **36.8** |
|---|---|---|---|---|---|---|---|---|
| **B** | **Professionals [%]** | 23.1 | 7.7 | 53.9 | 46.2 | 53.9 | 15.4 | 30.8 |
| **B-A** | | -16.4 | -31.8 | -19.8 | 8 | -1.4 | -20.1 | -6 |
| **Ordered B-A** | | 1.4 | 6 | 8 | 16.4 | 19.8 | 20.1 | 31.8 |
| **Rank** | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **Ordered rank** | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| **$T_+$** | | | | | **4** | | | |
| **$T_-$** | | **1** | **2** | **3** | | **5** | **6** | **7** |

Source: own research and processing

$$T_+ \frac{n(n+1)}{2} - T_- = \frac{7.8}{2} - 24 = 4$$

$$T_- \frac{n(n+1)}{2} - T_+ = \frac{7.8}{2} - 4 = 24$$

$T = \min(T_+, T_-) = 4$

$T < T(0,05) = 4 > 2,1 \Rightarrow H_0$ is proved.

The results of the sign test and also the Wilcoxon α-test prove the validity of hypothesis $H_0$. Despite the percentage differences between the groups of respondents, i.e. natives (39%) vs. professionals (23%) and non-natives (38%) vs. professionals (23%), according to the statistical tests employed, these differences are not significant. In other words, all the studied groups use compensation identically.

## Conclusion

In conclusion we would like to return to the working hypothesis in which we assumed that the groups of respondents differ from each other in their preferences of translation methods.

The obtained data was analysed by employing statistical tests; however, the interpretation of these results must be seen within the context. A decreasing tendency was seen in the case of compensation with modification and transliteration with compensation, even though differences between professionals and non-native speakers found the latter translation method more significant.

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