A corpus-based analysis of Croatian and Slovenian term formation in the marketing domain

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Abstract The paper analyzes Croatian and Slovenian term formation strategies in the marketing domain on the basis of the data obtained by computer processing of the corpora composed of translations of Philip Kotler's *Marketing Management.* As Croatian and Slovenian are closely related Slavic languages, it was expected that term formation strategies would generally be the same. However, the analysis uncovered opposite approaches to translation of multi-word terms resulting in terminological solutions of variable transparency. Croatian translators of *Marketing Management* were more likely to copy the concise English-language structures, i. e. compounds, sometimes at the expense of clarity and precision, while Slovenian translators opted for paraphrases and thus the clarity of meaning. While the conclusions of this paper refer solely to the analyzed corpus and not to the two languages in general, they are a good starting point for further research into Croatian and Slovenian term formation strategies in the marketing and other domains. Furthermore, the paper discusses the lack of knowledge of terminology and terminological work among Croatian publishers, translators and field experts. The paper also points to the benefits of corpus-based methodologies and how they can help with the creation of Croatian terminological resources in various scientific and technical fields.

Keywords terminology, term formation, marketing, corpus analysis, Croatian, Slovenian, multi-word terms, comparable corpus, translation, term equivalents

1 Introduction

Translation of specialized literature in today's world characterized by rapid change and constant generation of new ideas is a highly challenging task. This is especially felt by translators working into languages of limited diffusion, who often cannot rely on specialized dictionaries, which, if they exist, are often outdated due to their long production process. Therefore, translators turn to other sources, such as the internet, the reliability of which is sometimes doubtful. Other potentially reliable sources are the existing translations of previous editions of the book in question or translations of books dealing with the same topic.

The aim of this paper is to compare two translations, Slovenian and Croatian, of Philip Kotler's *Marketing Management* as potential sources of terminology in the field of marketing. Slovenian and Croatian are closely related Slavic languages, and therefore it is expected that translations of a particular text into these languages contain many similarities at different linguistic levels as well as similarities in term formation strategies, which will be the focus of this paper. Consequently, translators could use the existing translation in one of the languages (Croatian or Slovenian) to seek solutions for terms for which no equivalents have been proposed up to that point in any source in the other language.

Of course, searching for ideas in another language depends on, at least, a passive knowledge of that language. Until 1990, Croats and Slovenes lived in the same country, where Slovenes had to learn Serbo-Croatian as the official Yugoslav language. Furthermore, many Croats studied at Slovenian universities and, especially those living in the border areas, com-

muted daily to work there, which also means they mastered a certain level of the Slovenian language. The same is true of Slovenes coming to work and study in Croatia. Even today, when these peoples are divided by state borders, a lot of them will not resort to a lingua franca, be it Serbo-Croatian or English, in order to communicate with each other. Therefore, it is reasonable to expect that there are Croatian translators who understand Slovenian well enough to be able to consult Slovenian translations of specialized literature.

2 Literature review

2.1 Translation and terminology in Croatia and Slovenia

Having personal experience in translating marketing literature (Philip Kotler's *Principles of Marketing*) for the publisher of the Croatian translation of *Marketing Management,* I would like to point out several translation practices that are clearly in conflict with the theory of terminographic work.

First of all, in Croatia, translation teams are often composed of young inexperienced translators, willing to work for small fees, with a degree in foreign languages, which means they often lack basic knowledge of the specialized field in which they are doing the translation. Furthermore, these translators have not been taught where and how to gather terminology that they will need in their work, nor how to use it. In addition, existing general and specialized dictionaries[1] do not offer solutions for a significant number of terms, so translators often 'invent' translations of these terms. Consequently, field specialists that revise their work are faced with a frustrating task of correcting incorrect terminology, which often leads to errors of meaning in the text. Naturally, all the blame usually falls on the shoulders of translators, leading to the end of cooperation with those considered to be 'bad' translators. The source of such problems lies in the general ignorance of the terminological work[2] that is a precondition for a good translation.

In her book *Terminology: theory, methods and applications,* Teresa Cabré recognizes this problem and provides an explanation for the difference between translation and terminography (1999: 115):

> Terminography must not be confused with translation. Translators need specific terminology for specialized texts, but this does not imply that they themselves must develop the terminology, nor that they have to deal with all the terms in the special subject field in question. Working in terminology does not mean translating a term from one language

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[1]   Until 2006, when *Marketing Management* was published in Croatian, there were only two marketing dictionaries for Croatian, *Rječnik marketinga* (ed. Fedor Rocco) from 1993, which is actually an encyclopaedia with bilingual English-Croatian and German-Croatian glossaries at the end, and a bilingual English-Croatian terminological dictionary, *Englesko-hrvatski rječnik nazivlja u marketingu* (Radoš/Meler) from 2002. In 2011, the Faculty of Economics and Business in Zagreb published *Leksikon marketinga.* For Slovenian, the only specialized dictionary, a bilingual English-Slovenian and Slovenian-English dictionary, *Terminološki slovar trženja* (Potočnik/Umek), was issued in 2004, the same year as the Slovenian translation of the 11th edition of *Marketing Management.*

[2]   Terminology work encompasses the systematic collection, description, processing and presentation of concepts and their designations in terminological products, such as glossaries, databases etc. (ISO 1087 – 1:2000 in Nuopponen 2005).

into another based on supposedly equivalent designations, but gathering the designations that users of a language use to refer to a concept and ultimately, if necessary, proposing alternatives in those cases where speakers' designations are unsatisfactory. While translators are not terminographers, in daily practice the distinction between these two groups of professionals is often blurred.

In the last sentence of the quoted paragraph, Cabré admits that translators often have to perform terminographers' work but goes on to explain in an accompanying note that "alongside translators who clearly specialize in translation there may also be translators with training in systematic terminology who in fact work like terminologists" (1999: 230). Unfortunately, training in systematic terminology is currently not available in Croatia.

Consequently, of the three types of expertise (in terminology, in the subject field and in the languages in question) needed by terminology teams as described by Cabré (1999: 118), the one in terminology is always missing, resulting in terminological solutions that are not always satisfactory for different reasons. Furthermore, in many fields, experts use 'international', mostly English words, which is acceptable from a terminological point of view, but not in all cases since this can be a source of confusion and misunderstanding. Sometimes speakers get used to using foreign terms to the point that they think it is impossible to find/create the right equivalent in their mother tongue or consider their native language equivalents as not precise in naming the concept. Monika Kalin Golob (2001: 252) confirms that Croatia is not an isolated example of such a terminological situation and even goes so far as to qualify the situation in Slovenia as being "critical", especially in more modern fields and sciences where experts are unaware of the necessity to have and use Slovenian terminology. Fortunately, certain processes, such as the accession to the EU, have forced experts to sort out a terminological mess in the related fields, and Kalin Golob illustrates the results of a successful cooperation of field experts and linguists in the translation of basic communicology works. In the course of the translation process, those two groups of experts met once a week to create and suggest Slovenian terminology for the field, which is an excellent example of "terminological agreement" (Korošec in Kalin Golob 2001: 252).

Similarly, one of the aims of the Croatian translation team of *Marketing Management* was to find Croatian equivalents for English borrowings and to coin Croatian terms for those English terms that had no Croatian equivalents yet. This aim is especially significant if we take into account the fact that the usage of the English marketing terminology among Croatian marketing specialists is quite common. In that sense, Cabré warns that "a language that cannot be used in all types of communication is doomed to disappear" (2001: 18). However far-fetched this claim may seem, some Croatian linguists point to the fact that "in many fields, e.g. in the field of computer science and information science, [international terminological standards] are not and will not be translated because experts in the field decided that 'everyone speaks English anyway'" (Mihaljević/Nahod 2009: 20). Cabré continues to suggest that "countries with non-dominant languages and which are technologically dependent on others must create terms based on neology" (2001: 18). In order to create neology, a team of linguists and field experts has to reach a terminological agreement, as was illustrated above (Korošec in Kalin Golob 2001: 252). To be able to create new terms one group must consider the other as equal partners who are qualified and competent in their respective fields. The question is whether such an ideal situation can be achieved in a commercial organization, as is the publisher of *Marketing Management*,

where costs and deadlines are sometimes more important than the benefit of providing the Croatian language with the correct marketing terminology.

2.2 Benefits of special purpose corpora

Although much remains to be done in order to improve cooperation between linguists and field specialists in terminological work, many Croatian linguists pointed to benefits of using special purpose corpora in the creation of (specialized) dictionaries, standardization of terminology etc. Unlike general language corpora, special purpose corpora do not have to be very large. On the contrary, "compiling smaller corpora focusing on a particular field or genre is not only easier but also more purposeful" (Simeon 2002: 235). Data obtained by processing corpora could be used, among other things, to see what has happened with the Croatian language and terminology in a particular field after Croatia regained its independence in the 1990s, as well as to obtain scientific definitions of terms, which could make the work of lexicographers easier in their creation of general language and terminological dictionaries (Brlobaš/Horvat 2002). Furthermore, modern technologies enable lexicographers to explore specificities of a language used in a certain field, extracting those that might be useful for dictionary users, such as translators or field experts (Gačić 2002). Another area in which special purpose corpora might play a significant role is standardization of terminology. Some Croatian field experts have warned of the loss of connections between different engineering disciplines, which has resulted, among other things, in the creation of different terminology for the same concepts. One of the preconditions for re-creation of interdisciplinary and multidisciplinary dialogue, therefore, is standardization of terminology, a task that must be undertaken by field experts and language specialists working as a team (Šetina 2002).

Nevertheless, human language technologies[3] for the Croatian language are poorly developed due to the lack of awareness of their necessity, primarily at the state level. And one would expect the government to be interested in investing into such strategic tools, especially in the context of Croatia's accession to the EU. Tadić (2003: 52 f.) warns that such a situation could result in the Croatian language being "functionally illiterate", where the absence of these tools, which make communication in digitized channels simpler, will eventually push Croatian speakers to turn to the language for which such tools have been developed: English. He states that "the elements of this process can be partially noticed in the unstoppable influx of anglicisms into many technical fields for which an effort to create Croatian terminology rarely exists" (2003: 53; transl. by IR).

3 Methodology

3.1 Corpus design

The study corpus consists of the Croatian and Slovenian translation of Philip Kotler's *Marketing Management.* This book was first published in 1967 and subsequently became one of the basic textbooks for students of marketing around the world. With translations in different languages and thirteen editions up to this date, it is undoubtedly one of the most influential books in the field of marketing. Aimed at undergraduate and graduate students of marketing, the book contains all basic marketing concepts and is therefore an excellent source of marketing

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[3]   Automatic term extraction and machine-aided translation.

terminology. Since the end of the 1980s, several editions of the book have also been translated into Croatian and Slovenian, and they are regularly used as the main or additional literature at Croatian and Slovenian universities and business schools.

For the purpose of clarity, several points have to be made about the corpora used. First, the two translations are not completely parallel since the Slovenian version is a translation of the 11th edition, and the Croatian translation is that of the 12th edition of *Marketing Management,* meaning that there have been changes in the content and the structure from one edition to the other. However, it can be assumed that the marketing terminology used in the book did not change significantly in the four years dividing the two editions and that there might be no new terms in the later edition. Second, only the parts of translations were obtained in electronic version – the Slovenian version contained five chapters, while the Croatian version contained twelve chapters. Consequently, in order for the corpora to be as comparable as possible, only those five chapters that deal with the same topics as the chapters in the Slovenian translation were used in the analysis. Third, the number and qualifications of the Croatian and Slovenian translators differ significantly, which must be taken into account when analyzing their term formation approaches. The three Slovenian translators are all marketing specialists, unlike the nine Croatian translators, whose qualifications are in linguistics, psychology, sociology and finance. Therefore, any conclusions that the paper draws about the term formation strategies in the marketing domain are limited to these particular corpora and their authors.

3.2 WordSmith Tools

The corpora were processed by WordSmith Tools, version 4, which is a computer program for the lexical analysis of large quantities of text (Scott 2004). The three main components of the program are Wordlist, Keywords and Concord. When working with the program, one usually starts with the Wordlist tool, which produces a list of words from the selected texts in frequency order. If the specialized corpus is well composed, the most frequent words, apart from function words, will probably be terms. The list can be used to identify common word clusters, of which some may prove to be multi-word terms. The Concord tool enables the study of the chosen words in their contexts and helps in the detection of collocates. The Keywords tool is used to compare the specialized corpus with a larger reference corpus in order to identify words with unusually high frequency, which usually represent the basic terms of the field. These, in turn, can be expected to appear in multi-word terms and terminological collocations.

3.3 Research questions

As announced in the Introduction, the aim of the study is to compare the two translations as potential sources of terminology in the marketing domain. More precisely, the research questions to which the study intends to find the answers are: How similar are Croatian and Slovenian term formation strategies in the field of marketing? Can the existing solutions in one language be helpful in creating terminology in the other language?

4 Results

4.1 The corpora – main statistical data

When looking at the main statistical data (cf. table 1), it is important to bear in mind that the corpora are made up of different editions of the book with chapters of different length. Consequently, the file sizes, as well as the number of types and tokens, do not match. However, other data confirm that both corpora have been written in the same style, which affects, for instance, the length of sentences that is almost identical (17,62 words in the Croatian and 17,92 in the Slovenian corpus). Equally, the standardized type/token ratio is also very similar for both corpora (56,82 vs. 55,42) while the stop list, containing 100 words in both versions, removes a very similar number of tokens (29.060 vs. 26.119) and types (89 vs. 96).

Table 1: Main statistical data

statistics	Croatian corpus 5 chapters	Slovenian corpus 5 chapters
file size	672.699	574.414
tokens	93.719	80.872
types	18.107	14.539
standardized TTR	56,82	55,42
mean word length	5,86	5,77
sentences	5.320	4.512
mean (in words)	17,62	17,92
paragraphs	472	1?[4]
mean (in words)	198,56	80.872?
stop list (number of words)	**100**	**100**
tokens removed	29.060	26.119
types removed	89	96

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[4]   WordSmith statistics show that the Slovenian corpus has only one paragraph which is probably the consequence of transferring the text from the PDF format into the .txt format. The Croatian text was originally in the Word Document (.doc) format.

4.2 Lexical features of the corpora

After looking at the main statistical data, the Wordlist tool was used to make frequency lists of the words in the Croatian and Slovenian corpora. In order to eliminate function words such as auxiliary and modal verbs, pronouns, prepositions, conjunctions and particles, stop lists containing 100 such words were used.

Table 2: Comparison of the most frequent words in the Croatian and Slovenian corpora

No.	CROATIAN (English trans.)	Freq.	Keyness	No.	SLOVENIAN (English trans.)	Freq.	Keyness
1	tvrtka *company n*	610	825,81	1	podjetje *company n*	665	1005,80
3	marketing *marketing n*	387	620,90	3	kupec *buyer n*	302	556,93
5	proizvod *product n*	297	294,31	4	trženje *marketing n*	219	290,47
6	marketinški *marketing adj*	282	452,27	8	izdelek *product n*	175	264,93
7	kupac *buyer n*	225	312,27	11	marketing *marketing n*	145	70,67
9	prodaja *sale n*	192	202,72	12	trženjski *marketing adj*	140	231,92
10	vrijednost *value n*	189	150,50	13	vrednost *value n*	139	192,96
11	tržište *market n*	179	203,21	14	prodaja *sale n*	131	209,43
12	klijent *client n*	166	246,80	19	storitev *service n*	116	158,19
16	usluga *service n*	139	70,06	21	trg *market n*	112	117,18
35	marka *brand n*	93	115,51	35	tržen *market adj*	86	129,78

44	trošak *cost n*	80	96,13	42	tržnik *marketer n*	81	149,24
49	potrošač *consumer n*	76	94,80	44	povpraševanje *demand n*	77	141,87
55	potreba *need n*	71	38,23	47	e- *electronic adj*	75	
56	koristiti *use v*	70		51	potreba *need n*	67	39,61
69	udio *share n*	59	65,41	55	znamka *brand n*	65	98,20
77	cijena *price n*	55	35,21	56	management *management n*	64	
101	menadžer *manager n*	49	78,52	58	delež *share n*	63	46,57
103	poslovanje *business n*	48	33,26	61	blagovna *of goods adj*	62	92,95
113	potražnja *demand n*	48	76,92	72	strošek *cost n*	57	89,57
117	e- *electronic adj*	47		84	ponujati *offer v*	51	40,43
121	upravljanje *management n*	47	39,22	86	želeti *want v*	51	44,78
150	tržišni *market adj*	42	59,00	88	dobiček *profit n*	50	67,65
				98	oglaševanje *advertising n*	47	52,03

For the purpose of comparison, Table 2 aligns some of the most frequent, terminologically relevant[5], words chosen among the first 100 words from the Wordlists of the Croatian and the Slovenian corpora. The number before the word marks the position where the word appeared for the first time on the Wordlist, regardless of its inflection, while all the words in the table are presented in their respective dictionary form (lemma). Furthermore, the table does not contain words such as adjectives, adverbs, prepositions, proper names and some nouns widely used in all contexts

which were not on the stop lists. Apart from the Wordlist data, the table includes the data on 'keyness' which was obtained from the Keywords tool for which reference corpora had to be created. Ideally, the reference corpora used would be the Croatian and Slovenian national corpora HNK and FidaPLUS, but they were not available to the author of this paper in the format requested by the Oxford Wordsmith Tools. Consequently, the *ad hoc* reference corpora were created out of personal and Internet sources.[6] These *ad hoc* reference corpora are larger than the study corpora, the size of the Croatian reference corpus being 112.365 words (vs. 93.719 of the main corpus) and of the Slovenian reference corpus 121.327 words (vs. 80.872). Similarly, the reference corpora are thematically diverse, covering topics such as law, medicine, forestry, psychology, women's rights, music, entrepreneurship, politics, education, etc.

As expected, since the corpora consist of translations of the same book, the most frequent Croatian and Slovenian words in the table are mostly the same. Differences in their frequency can be explained by the fact that the corpora are not of equal size and are made up of translations of different editions of the book. The majority of the words on the Wordlist are nouns, which is in line with the data from the literature (Cabré 1999: 87), followed by adjectives, verbs, adverbs and functional words that were not included in the stop list.

The words in table 2 are those that typically appear in marketing texts. While some of them can undoubtedly be considered terms (*marketing-trženje*/marketing, *tržište-trg*/a market), the 'term' status of others becomes obvious in combination with other words, when the function Make an Index is used (*udio-delež*/share ➔ *tržišni udio-tržni delež*/a market share).

Nouns in the table designate entities (*kupac*/buyer; *tržnik*/marketer), objects (*proizvod-izdelek*/product) and processes (*prodaja*/selling; *raziskava*/research). The table contains only a small number of classifying adjectives that can be considered terms (*marketinški, tržišni*/ marketing, market as premodifiers) while the adjectives that were not included in table 2 are those describing quality (*nov, različit*/new, different) widely used in all contexts. Of the verbs that were listed among the 100 most frequent words (*željeti*/want; *ponujati*/offer) none seem to be terms at first sight, but their frequency and keyness value[7] suggest they are quite important in the marketing context. These verbs say much about relationships among entities, objects and processes designated by the most frequent nouns in the corpora and, in combination with different nouns, they constitute terminological collocations.

Croatian examples:
tvrtke koriste različita imena marki … (companies use different brand names …)
tvrtke žele privući klijente … (companies want to attract clients …)
Slovenian examples:
Caterpillar ponuja boljše storitve … (Caterpillar offers better services …)
kupec želi 'nedrag' avto … (a buyer wants a non-expensive car …)

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5   "The basis for deciding whether a word is terminologically relevant is its relative frequency in the specific text as compared to its frequency in a general language corpus. By extracting keywords, i.e. words that occur with a higher relative frequency than would be expected, we obtain lists of words characteristic of the domain that the text belongs to." (Vintar 2003: 51)

6   "The only requirement for a word list to be accepted as reference corpus by the software is that it must be larger than the study corpus." (Berber-Sardinha 2002: 7)

7   Keywords extracted by Wordsmith Tools indicate the text's 'aboutness' (Philips in Berber-Sardinha 2002: 7).

Interestingly, the most frequent words include the abbreviation e-, which stands for 'electronic' and is used in expressions such as *e-knjige*/e-books and *e-poslovanje*/e-business.

The order of the words obtained when making a Wordlist differs from the order obtained by processing the corpus with the Keywords tool, which compares it to the reference corpus. In the above table, the data on the order and frequency are aligned with the data on keyness, and it is interesting to see that some words with a high frequency in the corpora have a low keyness and vice versa. Thus, for example, the 16th most frequent word in the Croatian corpus, *usluga*/service, is listed as only the 55th after processing by the Keywords tool, having the keyness value of 70,06, which is almost twelve times less than the word with the highest keyness value (*tvrtka*/company 825,81). Since this word is often used in the expression *proizvodi i usluge* (products and services), it could be expected that the two words have a close keyness value, but the figures disagree (*proizvod*/product 294,31). When it comes to the Slovenian corpus, the word *marketing,* which is the 11th most frequent word in the corpus, has the keyness value of 70,67, and holds the 62nd place on the Keywords list. A possible explanation for such a ranking is the existence of the synonymous word *trženje,* which is a Slovenian equivalent for the English term *marketing.* While *marketing* can be found in different contexts in the Slovenian language, *trženje* is a recognized term in the Slovenian marketing terminology, which explains its keyness in this corpus.

Another explanation for differences in the keyness data of particular words in the corpora is the fact that the reference corpora are not of equal size. While the Croatian reference corpus contains 112.365 words and is only 18.646 words larger than the original corpus, the size of the Slovenian reference corpus is 121.327, which is 40.455 words more than the original corpus. Nevertheless, the keyness of the word *usluga* was calculated[8] manually by using the Croatian National Corpus (HNK) as the reference corpus and the result of 1,76 leads to the conclusion that *usluga*/ service is a key word in the corpus. Another word with low keyness in the above table, *potreba*/ need (38,23), when compared to the HNK as the reference corpus results in the value of 2,51, which clearly qualifies it as a key word.

The frequency list is expectedly homogenous, and the most frequent general expressions that are not listed in the above table relate to book editing (*poglavlje-poglavje*/chapter), parts of journal titles, company names and cities quoted in the book (Business, Journal, American, www, Research), adjectives designating quality (*nov, različit*/new, different), different adverbs (*često, dobro*/ frequently, well) as well as nouns designating numbers and measurement units (*godine, milijun*/ years, million).

All of the above points to the conclusion that the corpora composed of translations can be an excellent source of terminology provided that translators, field expert reviewers and language editors have completed their part of the job in a satisfactory manner. The following analysis of selected lexical units will illustrate the benefits that translators and terminologists can have of using the corpora composed of previous translations of a book and translations in a related language.

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[8]   The formula used for calculation was: $k = \dfrac{\dfrac{f_S}{N_S}}{\dfrac{f_R}{N_R}}$, where N_S is the size of the marketing corpus, f_S is the

frequency of a term in the marketing corpus, N_R is the size of the reference corpus (HNK) and f_R is the frequency of the term in the reference corpus. (Vintar 2008: 97)

4.3 Analysis of selected lexical units

4.3.1 marketing – trženje (Eng. marketing)

The basic concept in the field described by this paper is *marketing,* which the glossary of the 12th edition of *Marketing Management* defines as a "process of planning and executing the conception, pricing, promotion, and distribution of ideas, goods, and services to create exchanges that satisfy individual and organizational goals" (Kotler and Keller 2006: G5). Although Croatian and Slovenian are two related languages, the Croatian language borrowed the term *marketing* from the English language in its original form, while *trženje* in the Slovenian language was derived from the Slovenian noun *trg,* the place where the process of *trženje* occurs. The English term *marketing* was derived from the verb *to market,* which, in the English-Croatian Dictionary, is defined as *prodavati (to sell), izaći na tržište sa (to enter a market with), plasirati (to place)* (Bujas 2005: 535), and, in the English-Slovenian Dictionary (www.slovarji.org) available online, *as dati na trg (to place on a market), kupovati (to buy), prodajati (to sell).* The Croatian Encyclopaedic Dictionary defines marketing as "all activities and organisation of promotion, advertising and capturing a market or public opinion; the process which aligns and designs all elements of a sale of a product" (Anić 2002: 712); in comparison, the Dictionary of the Slovenian Standard Language (SSKJ) contains two terms: *marketing* is defined as "planning and harmonising investment, production, sales and promotion with needs and capacities of a market", while *trženje* is defined as "trading; economy; planning and harmonising investment, production, sales and promotion with needs and capacities of a market" (*Slovar slovenskega knjižnega jezika,* http://bos.zrc-sazu.si/sskj.html). If the Croatian and Slovenian definitions of marketing are compared, it becomes evident that the Croatian definition is much narrower and covers only promotional activities, while the Slovenian definition is much closer to Kotler's definition in the glossary of *Marketing Management.*

There are two basic problems that arise from the fact that in the Croatian language there is no original Croatian word designating the concept of marketing. First, the majority of Croatian speakers think that marketing covers only promotional and advertising activities, which is confirmed by the definition in the Croatian Encyclopaedic Dictionary, while marketing experts, who follow Kotler's definition, would not agree with this conception of *marketing.* Second, the borrowed English term *marketing* is not in line with morphological and syntactic rules of the Croatian language. Nevertheless, the term *marketing* has taken root in the Croatian language, leading to the derivation of the adjective *marketinški,* but not a verb nor a noun that would designate the agent of a marketing activity, which causes many problems not only in translation, but also in everyday use. On the other hand, in the Slovenian language there is a noun *trženje (marketing),* designating an action, an adjective *trženjski (marketing),* a verb *tržiti (to market),* as well as a noun *tržnik (a marketer),* designating the agent of a marketing activity.

It is interesting that in the overall effort of finding/creating Croatian terminology during translation of *Marketing Management,* neither translators nor field specialists considered the possibility of creating a Croatian equivalent for the term *marketing,* despite its limited derivational capacity, as illustrated above. Furthermore, the purist movement, which appeared in Croatia in the early 1990s as a response to the political situation in the region, does not seem to have affected borrowings from the English language. Results of the analysis of borrowings in two corpora, one composed of newspaper articles dating from 1970 to 1975 and the other from 2000 to 2004, showed that purism was successful in replacing internationalisms (words originating from Latin or Greek), but not anglicisms, which continue their influx into the Croatian language on a daily basis (Skelin Horvat 2004).

Table 3 aligns several examples of Croatian and Slovenian equivalents of different English terms, followed by Croatian terms for which no Slovenian equivalents were found in the corpus and vice versa.

English	Croatian	Slovenian
target marketing	ciljni marketing	ciljno trženje
experiential marketing	iskustveni marketing	trženje doživetij
database marketing	marketing baze podataka	trženje, ki temelji na bazi podatkov (na podlagi podatkovnih baz)
relationship marketing	marketing odnosa	trženje, ki temelji na odnosih (s kupci)
cause-related marketing	marketing vezan uz svrhu marketing povezan s općom dobrobiti	trženje ob podpori dobrodelnih namenov
word-of-mouth marketing	marketing usmenom predajom	trženje, ki temelji na ustnem izročilu
one-to-one marketing	marketing jedan na jedan	trženje po načelu eden-za-enega
niche marketing	marketing niša	trženje v vrzelih
B2B marketing	B2B marketing	
brand marketing	marketing marke	
socially responsible marketing	društveno odgovoran marketing	
industry marketing		trženje v panogi (na panožni ravni)
customer relationship marketing		trženje, ki temelji na odnosih s kupci; trženje s poudarkom na odnosih s kupci
hard-sell marketing		trženje, ki temelji na trdi prodaji

Table 3: Croatian and Slovenian collocations with the noun marketing

The majority of terms in the Croatian corpus consists of two words, that is, of a combination of an adjective + a noun *(ciljni marketing)* and a noun + a noun in the genitive *(marketing marke).* They were created by direct translation of the English two-word terms, which is a common method of the multi-word term formation in Croatian (Hudeček/Mihaljević 2009: 62). By keeping the newly created terms short, translators also adhered to the principle of linguistic economy in term formation. However, this striving towards conciseness combined with the borrowing *marketing* has sometimes resulted in solutions whose clarity and precision, compared to Slovenian solutions, is at least questionable: *iskustveni marketing – tženje doživetij* (experiential marketing), *marketing niša – tženje v vrzelih* (niche marketing).

On the other hand, even though the basic Slovenian term of the marketing field is based on a Slovenian root and thus quite transparent *(tženje),* multi-word terms proved to be a challenge for Slovenian translators as well. Where Croatian translators used nominal compounds, Slovenian translators opted for paraphrases such as *tženje ob podpori dobrodelnih namenov (cause-related marketing), tženje po načelu eden-za-enega (one-to-one marketing) and tženje, ki temelji na odnosih s kupci (customer relationship marketing).* The above quoted terms are Slovenian equivalents of English three-word terms created by nominalizing descriptive relative clauses on the right side of the noun (marketing that is related to a cause; marketing that is based on the relationship with a customer), which is a common process in the English language, but difficult to copy in Slovenian or Croatian. A similar problem arises with some two-word terms (niche marketing – marketing in a niche), so a word-for-word translation might result in a term that is linguistically economic but unclear.

When it comes to combining the noun *marketing/tženje* + verb, the Concord tool detected the following examples:

> **Croatian:** marketing se primjenjuje, prakticira, provodi, bavi se, djeluje *(marketing is applied, practiced, implemented; marketing deals with, functions)*
> **Slovenian:** tženje se izvaja, se ukvarja, se uvaja, se načrtuje
> *(marketing is implemented, deals with, is planned)*

None of the cited collocations seem to be technical in nature, but *marketing/tženje* has two meanings, which becomes clear when juxtaposed with different verbs. Thus, in combination with verbs *baviti se/primjenjivati/djelovati/ukvarjati se (to deal with/to apply/to function)* the noun marketing/tženje designates a theory or a science, while in combination with verbs *prakticirati/provoditi-izvajati/načrtovati (to practice/to implement/to plan),* it designates the activity of placing a product on a market.

Finally, it is worth noting that in the Slovenian corpus the word *marketing* appears only as a foreign word in titles and names of different journals, books and organizations, emphasizing the fact that *tženje* is accepted as a Slovenian equivalent of the English term *marketing.*

4.3.2 marketinški – tženjski (Eng. marketing)

Table 4 places side by side several examples of Croatian and Slovenian equivalents of terms containing the adjective *marketinški/tženjski.* It can be observed that Croatian and Slovenian combinations are fully parallel in meaning, which shows that combinations with the adjective *marketinški/tženjski* are not ambiguous as was the case with the noun *marketing/tženje.*

Table 4: Croatian and Slovenian collocations with the adjective marketing

English	Croatian	Slovenian
marketing activities	marketinške aktivnosti	trženjska akcija, aktivnost
marketing tools	marketinški alat/oruđe	trženjsko orodje
marketing research firms	tvrtke za marketinško istraživanje	podjetja za trženjske raziskave
marketing research department	odjel za marketinško istraživanje	oddelek za trženjske raziskave

4.3.3 tržište – trg (Eng. market)

Since marketing is performed on a market, *tržište/trg* is one of the most frequent words in our corpora. *Tržište* is the 11th most frequent word in the Croatian corpus, while *trg* is the 21st most frequent word in the Slovenian corpus, which can be explained by the difference in the file sizes. Table 5 contains Croatian and Slovenian equivalents designating different types of markets, with multi-word terms appearing in two basic formats: an adjective + a noun *(ciljno tržište/ciljni trg)* and a noun + a noun in the genitive *(tržište sirovina/trg surovin)*.

Table 5: Croatian and Slovenian collocations with the noun market

English	Croatian	Slovenian
B2B market	B2B tržište	trg B2B
market and marketspace	fizička i digitalna tržišta	fizični in digitalni trg
B2B/business and consumer markets	poslovno tržište i potrošačko tržište tržišta krajnje i poslovne potrošnje	medorganizacijski in porabniški trg
institutional and governmental markets	institucijsko i vladino tržište	nepridobitno naravnani in vladni trgi
potential/accessible/ target markets	potencijalno/dostupno/ ciljno/osvojeno tržište	potencialni/razpoložljivi/ ciljni/ dejanski trg
raw material/labor/capital markets	tržište sirovina, rada, kapitala	trg surovin, delovne sile, delnic

Among the examples in the table, several equivalents strike us as being different in form in Croatian and Slovenian. One of them is *B2B tržište* in Croatian and *trg B2B* in Slovenian. The abbreviation B2B stands for 'business-to-business' relationship, that is, doing business between companies, especially in the Internet context. The clearest translation might be *internetsko tržište poslovne potrošnje/spletni medorganizacijski trg,* but the abbreviation B2B is widely used in economics and on the Internet, not only in English but in other languages as well. In Croatian and Slovenian, abbreviations are treated as nouns, and nouns can describe other nouns as attributes or appositions. As attributes, nouns are in the genitive or some other oblique case, and as appositions, they agree in case with the noun they describe. While B2B never changes the case in either of our corpora (there are no examples of B2B-a, B2B-u, etc.), in the Slovenian corpus, unlike the Croatian one, it changes the place: *B2B spletna mesta* (2 examples), *spletna mesta B2B, storitve B2B, oglas B2B, spletne dražbe B2B.* The query in FidaPLUS also confirms the fact that B2B is used both before and after the noun it describes. In the Croatian corpus, however, B2B always comes before the head noun, this position being confirmed by the query in the Croatian National Corpus (HNK), although only four examples have been found in it. A quick Google search also shows us Croatian examples where B2B acts as a premodifier.

Traditionally, in the Croatian language nouns as attributes and appositions follow the head noun, but under the foreign influence there has been an increase in the use of a noun as a premodifier. Some Croatian linguists (Bujas in Starčević, 2006: 646) criticize such structures, saying they are "wrong", and recommend that nouns be used as attributes. However, such structures are not a recent development, but have appeared in the past as a result of the German or Turkish language influence. Today, of course, the English language is used as a lingua franca and is omnipresent in the media, having a strong influence on other languages, which results, among other things, in the emergence of new grammatical structures. Premodification with a noun became quite productive in the Croatian language because it is a practical and economic structure (Starčević 2006). Croatian linguists may not like it, but a language changes and is modeled by its users.

Similarly, Slovenian grammarians (Toporišič et al. 2001) prescribe a strict rule regarding the orthography of compound words formed with abbreviations. If an abbreviation comes before the head noun, it is written with a hyphen *(C-vitamin, PTT-služba).* If the order of words is reversed, they are written separately, without hyphenation *(vitamin C, služba PTT)* (Toporišič et al. 2001: 57). However, the examples from the FidaPLUS corpus cited above show that Slovenian speakers disregard this rule, which may eventually lead to changes in Slovenian orthography rules.

5 Discussion

The analysis of selected marketing terminology in the Croatian and Slovenian translations of Philip Kotler's *Marketing Management* shows that term formation strategies of Croatian and Slovenian translators are mostly the same (cf. table 6), especially with English-language structures that easily translate into these two languages.

Table 6: Term formation strategies used by Croatian and Slovenian translators – similarities

English	Croatian	Slovenian
adjective + noun *marketing concept*	**adjective + noun** *marketinški koncept*	**adjective + noun** *trženjski koncept*
noun + noun *labor market* *car market*	**noun + noun in the genitive** *tržište rada*	**noun + noun in the genitive** *trg delovne sile*
noun + noun + noun *market opportunity analysis* *market research company*	**noun + (adjective + noun) in the genitive** *analiza marketinških prilika* **noun + preposition 'za' + (adjective + noun) in the accusative** *tvrtka za marketinško istraživanje*	**noun + (adjective + noun) in the genitive** *analiza trženjskih priložnosti* **noun + preposition 'za' + (adjective + noun) in the accusative** *podjetje za trženjske raziskave*

However, with multi-word terms, where the first one, two or three words are actually a nominalized relative clause that should be positioned on the right side of the head noun, Croatian and Slovenian translators use different strategies resulting in terms with different degrees of transparency (cf. table 7).

Table 7: Term formation strategies used by Croatian and Slovenian translators – differences

English	Croatian	Slovenian
database marketing	*marketing baze podataka* *marketing na temelju baze podataka*	*trženje, ki temelji na bazi podatkov (na podlagi podatkovnih baz)*
relationship marketing	*marketing odnosa*	*trženje, ki temelji na odnosih (s kupci)*
niche marketing	*marketing niše*	*trženje v panogi (na panožni ravni)*

experience marketing	iskustveni marketing	trženje doživetij
cause-related marketing	marketing vezan uz svrhu marketing povezan s općom dobrobiti	trženje ob podpori dobrodelnih namenov
word-of-mouth marketing	marketing usmenom predajom	trženje, ki temelji na ustnem izročilu
one-to-one marketing	marketing jedan na jedan	trženje po načelu eden-za-enega
customer relationship marketing		trženje s poudarkom na odnosih s kupci; trženje, ki temelji na odnosih s kupci
expansible and nonexpansible market	šireće i nešireće tržište	trg, ki ga je mogoče širiti in trg, ki ga ni mogoče širiti

As illustrated in Table 7, Croatian translators of *Marketing Management* were more likely to copy the concise English-language structures, i. e. nominal compounds, often at the expense of transparency and precision, while Slovenian translators opted for paraphrases, which are transparent but uneconomic. The ISO standard 704 (2009: 38 f.) on principles and methods of terminology work cites transparency and linguistic economy as two of the seven principles to be followed in term formation, others being consistency, appropriateness, derivability and compoundability, linguistic correctness and preference for native language.

Interestingly, all but one of the above examples contain *marketing* as the head word, which has been borrowed in Croatian in its original form, while the Slovenian language coined the term *trženje.* The Croatian term *marketing baza podataka* sounds good but does not mean the same as the original *data-base marketing* – marketing based on data bases. If the term *marketing baza podataka* is backtranslated into English, we obtain *marketing of data bases,* that is, the conception, pricing, promotion and distribution of data bases. Another interesting point is that the index at the end of the Croatian translation of the book contains the paraphrase of the term *(marketing na temelju baze podataka),* which is parallel to the Slovenian version, but in the chapter dealing with the topic, we read *marketing baze podataka.* This inconsistency might be a result of an excessive number of people working on the translation (9 Croatian translators vs. 3 Slovenian translators), who overlooked the fact that a term, apart from the chapter they are translating, appears elsewhere in the book. Another explanation might lie in the fact that the Croatian language borrowed the term, and average Croatian speakers (and some of the translators are not marketing experts) do not precisely associate this term with what it actually describes. This is confirmed by the Croatian definition and thus understanding of the term *marketing,* which is much narrower than Kotler's idea of marketing. The comparison of dictionary definitions of marketing showed that the Croatian definition focuses only on the promotional aspect of marketing, which quite accurately reflects an average Croatian speaker's understanding of that process. On the other hand, the Slovenian definition of *trženje* encom-

passes all aspects of Kotler's original idea, and the term has been coined on the basis of a Slovenian root word, leaving no room for confusion and imprecision. The Slovenian translators translated the actual meaning of the term, which resulted in a paraphrase. Creating a term that would be short and concise would require a dose of innovativeness and creativity (Peti 1980/1981), for which, in this particular case, there might not have been time, need or courage.

However, paraphrases disrupt effective communication, which is paramount in scientific and technical fields. Sager (1990) identifies three properties underlying effective communication in special languages: economy, precision and appropriateness. He suggests that "economy in the vocabulary is achieved by compression, through such procedures as acronymy, blending, derivation and compounding" (1990: 108). These procedures are much more obvious and applicable when terms are created in the language in which the technologies and ideas they describe have been conceived. Croatian and Slovenian are small languages and cultures condemned to import new technologies and ideas together with the accompanying terminology, which is usually translated. In the process of the terminology transfer, Croatian and Slovenian translators of *Marketing Management* found themselves torn between requirements of precision and economy of expression, sometimes choosing one at the expense of another.

6 Conclusion

Croatian and Slovenian translators of *Marketing Management* did use the same term formation strategies when translating English-language multi-word terms with the following patterns: adjective + noun, noun + noun and noun + noun + noun. However, their strategies differed with multi-word terms where the first one, two or three words were actually a nominalized relative or prepositional clause that should be positioned on the right side of the head noun. Croatian translators created nominal compounds, often at the expense of clarity and precision, while Slovenian translators opted for paraphrases, which are transparent but cannot be considered terms. Nevertheless, this transparency of Slovenian solutions makes them a good starting point for further work on formation of selected terms in both Slovenian and Croatian.

The different approach to translation of complex terms might in this case be accounted for by the different professional backgrounds of translators. The three Slovenian translators are all marketing specialists, unlike the nine Croatian translators, whose qualifications are in linguistics, psychology, sociology and finance. Both groups of translators might have found better solutions if they had been provided with the adequate terminological support.

Since the conclusions made above are limited to the particular corpora and their authors, it is not possible to make general conclusions on Croatian and Slovenian term formation strategies in the marketing domain. To be able to do so, in future research the corpora being studied should be composed of the texts originally written by Croatian and Slovenian marketing authors.

Despite its limited scope, this study clearly demonstrates the benefits of using corpus processing tools such as WordSmith Tools in the analysis of term formation strategies in different languages, with the most important precondition for their optimal use being carefully compiled corpora. This does not imply that they have to be parallel, because even comparable corpora, covering the same topics and concepts, will contain enough data to allow further terminological analysis. Among other things, a statistical analysis of the corpora should reveal the proportion of particular term formation methods, as well as different types of collocations normally used in the field.   •

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