

English Loanwords in Mongolian Usage

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Abstract

Many authors have examined the influence of loanwords in languages using statistical methods. However, English loanwords in Mongolian are rarely studied in quantitative linguistics. The results of the present study show that English loanwords in Mongolian share the universal feature of other tested languages, as their frequency distribution abides by Zipf's Law. In addition, we define and test nine English loanword models depending on borrowing method and parts of speech, and find that the results can be described using a power function.

Keywords: *Mongolian, English, loanwords, quantitative linguistics, modelling.*

1. Introduction

The Mongolian language is the official language of Mongolia, and the number of speakers across all its dialects may be 10 million, including the vast majority of the residents of Mongolia and many of the Mongolian residents of the Inner Mongolia Autonomous Region in China. Mongolian belongs to the Mongolic family and is a typical agglutinative language that relies on suffix chains in the verbal and nominal domains, and manifests the subject–object–verb (SOV) basic order.

Mongolian includes many words borrowed from other languages, coming from a variety of cultural, trade, political, and military influences. A loanword can be defined as a word that is transferred from a donor language to a recipient language and is used in the recipient language (Joshi & Rajarshi 2017). In the history of the language – in the course of the last nearly eight hundred years –, the Mongols have used no fewer than 4,000 loanwords (Muren 1984), borrowed from about 30 languages (Tumurtogoo 2018). First, Mongolian adopted loanwords from Old Turkic, Sanskrit, Persian, Arabic, Greek, Sogd, Tibetan, Tungusic, and Chinese. However, recent loanwords come from Russian, English, and Mandarin Chinese (mainly in Inner Mongolia). Despite phonetic differences, Mongolian dialects often share common loanwords borrowed from other languages and keep using them in daily life.

As a result of recent socio-political changes, Mongolian has also borrowed many words from English. The English words for new objects or for new concepts are examples of technical borrowings. Words like *kompiüter*⁴ (“computer”), *layiser* (“laser”), *radar* (“radar”), or *disk* (“disk”) abound in technical Mongolian. In recent times, numerous loanwords of English origin concerning daily life have also become more common. A considerable number of words in this category have acquired a very wide circulation – for example, *radio* (“radio”), *feyil* (“file”), or *imel* (“e-mail”). As such, the number of English loanwords in all spheres (innovation technology, media, economy, fashion, etc.) is constantly increasing to satisfy the communication demands of society.

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⁴ The Latin transcription of Mongolian follows the Latin transcription by Poppe (1954).

In quantitative linguistics, loanwords have been analysed in many ways – for example, from the perspectives of adoptions, structures, processes, influences, and their interrelations. Many authors have examined loanwords in German (Best 2001; Körner 2004; Ternes 2011; Liu 2013), English (Best 2006), and Russian (Stachowski 2010, 2018); their methodology is characterized by the use of quantitative methods and tools ranging from (simple) quantitative description to simulation and mathematical modelling. Among the dozens of investigations, the most important hypothesis is known as Piotrowski Law, capturing the law-like process of the incorporation of loanwords in many languages. The model has been revised by Altmann (1983, 1992), and obtained a form which has been positively tested in almost all respective research.

Best (2006) treated the process of transferring German words to English and the spectrum of fields, finding that the frequency of borrowings follows a regular rank-frequency distribution. The same author (Best 2005, 2013, 2014) also focused on the development of borrowings in German and demonstrated that this process abides by Piotrowski Law.

Liu (2013) dealt with German words of Chinese origin and analysed them using the methods of quantitative linguistics. The investigation showed that more than 160 words of the Chinese origin are in active use in the modern German language. Many Chinese loanwords were probably brought from China to the West by migrants. Many of the first words borrowed from Chinese migrated from the Cantonese dialect via English to German and other European languages. However, the investigation has yet to determine whether the reception process of German words of the Chinese origin abides by Piotrowski Law, or not.

Stachowski (2010) carried out research of loanword adaptation in a different way. His new method of preparing data for a quantification of loanword adaptation was illustrated with the example of Russian loanwords in Dolgan. The result is an attempt to measure the commonness and meaningfulness of adaptations, and an index of loanword nativization. Stachowski (2018) analysed the distribution of counts of phonetic renderings in 25 adaptations, together with the specific results that they yield during or after borrowing. Using loanwords from three methodologically different datasets, which contained the Arabic loanwords in sixteenth-century Ottoman Turkish, compound words borrowed from German to Polish, and the Russian loanwords in contemporary Dolgan, he confirmed the hypothesis that the distribution of counts of renderings in loanword adaptation is consistent with the Zipf-Alekseev distribution.

Furthermore, special attention has been paid to the investigation of the structure and cohesion of borrowings. In order to study the development of English-origin expressions, Gnatchuk (2015) analysed English–German as well as German–English hybrid compounds used in the newspaper *Kleine Zeitung* from 1995 until 2015. This analysis shows that the tendency of usage of new English borrowings is modelled using statistical methods, such as Piotrowski Law. The rank-frequency distribution of the English–German (German–English) hybrid compounds can be fitted using the power function. Furthermore, the investigation of cohesion for English–German and German–English compounds shows that the total values of English–German hybrid compound cohesion and their rank-frequency distribution can be fitted using the Zipf-Alekseev function.

The English loanwords in Mongolian have been researched in many ways (Muren 1984; Tumurtseren 2004; Norjin 2007; Bao 2017). However, a quantitative analysis of the distribution of probabilities in such tendencies has not yet been conducted. Given that the previous research on loanword adaptation has typically focused on historical investigation and transcription differences between source and loanword sounds in morphologically simplex words, few studies on English loanwords in Mongolian have considered their dynamic change, since their frequency distribution has been less studied and less understood.

In order to examine the adaptation of English loanwords in Mongolian dynamically, the present study investigates the following questions:

1. In the present-day usage, what is the rank-frequency distribution of rank for loanwords of English origin in Mongolian?
2. Does the frequency of English loanwords occurring in a text follow some general frequency distribution of rank?
3. Are there any morphological mechanisms in borrowings?

In the view of the above, we concentrate on the frequency distribution of English loanwords and their morphological characteristics. It is assumed that the rank of loanwords is arranged according to decreasing frequencies, and that the frequency of the structural patterns of English loanwords is related to complexity formed by grammatical rules in Mongolian. The rest of this paper is organized as follows: Section 2 introduces the material and the method used in this study; in section 3, the analysis results of English loanwords are illustrated and discussed; the final section contains some concluding remarks.

2. Data and Method

2.1 Corpus

A growing number of English loanwords have become current in official media and publications in Mongolian. Since the task of our analysis is to presuppose mechanisms that are responsible for borrowings in usage, we illustrate the performance of our proposed method by collecting data from the TV news of Inner Mongolia News and the newspaper Inner Mongolia Daily. As a result, we use a 299,027-word news corpus, consisting of 562 news sources broadcasted or published from 2012 to 2016. The collection of data from each year is given in Table 1.

Table 1.
Text collection and proportion of each year

Year	Words	Sample collection	Percentage of tokens (%)
2012	13.901	Inner Mongolia News	4.65
2013	81.270	Inner Mongolia News	27.18
2014	22.521	Inner Mongolia News	7.53
2015	81.387	Inner Mongolia Daily	27.22
2016	99.948	Inner Mongolia Daily	33.42
Total	299.027		100

3. Results and Discussion

3.1 Frequency distribution and the result of computation

Word frequencies are central to lexicology investigation – they are always used to illustrate the relation between quantitative and qualitative methodologies; the studies of the phenomenon have focused mainly on the distribution of counts of phonetic (Stachowski 2010, 2018) and structural patterns (Gnatchuk 2015) of the loanwords, and on the estimation of the actual proportion of loanwords in a language (Joshi & Rajarshi 2017). In order to obtain the frequencies of English loanwords in Mongolian, we calculated occurrences of these words in the 299,027 tokens corpus. As a result, we have 118 distinct words together with their frequencies. Table 2 gives the frequencies and the ranks of selected English loanwords (the full list is shown in the Appendix 1).

Table 2.
Frequencies of English loanwords

Loanwords	Part of speech	English	Frequency	Rank
<i>mašin</i>	noun	machine	226	1
<i>kompani</i>	noun	company	219	2
<i>inženering</i>	noun	engineering	216	3
<i>šistem</i>	noun	system	193	4
<i>kadri</i>	noun	cadre	192	5
<i>materijal</i>	noun	material	158	6
<i>energi</i>	noun	energy	119	7
<i>kilometr</i>	noun	km	88	8
<i>telvis</i>	noun	television	65	9
<i>ton</i>	noun	ton	59	10
...
<i>kod</i>	noun	code	1	118

On the basis of this list, it is observed that the absolute frequency of English loanwords is 2,348, so that the average frequency of English loanwords in our corpus is 0.79%. In addition, the English-origin noun is 2,303 make up 98.08% of the English loanwords in corpus.

Fundamental laws in quantitative linguistics describe proportionality phenomena related to frequencies of units or of classes made up of features of the units (Andersen 2002). Here, we used the Altmann-Fitter software to fit the data, and the result of the computation shows that the frequency distribution of English loanwords follows the Zipf-Mandelbrot Law.

Zipf's Law is as mathematicised as follows –

$$f_r = cr^{-1}; \tag{2}$$

based on Zipf's theory, Joos and Mandelbrot (Joos 1936, Mandelbrot 1953) proposed an improved distribution model by treating the exponent in Zipf's formula as a parameter, shown in the following formula:

$$f_r = cr^{-b}, \tag{3}$$

where $b > 0, c > 0$.

When we choose the parameter $b = 1$, then the formula of Joos is reduced to the traditional formula of Zipf's law. On the basis of the above two formulas, Mandelbrot (Mandelbrot 1953, 1962) studied the frequency distribution of words by using methods of information theory and probability theory, and proposed a three-parameter model:

$$f_r = c(r + a)^{-b}, \tag{4}$$

where $a \geq 0, b > 0, c > 0$.

This formula was called the Mandelbrot formula by later generations. When we choose the parameter $a = 0$, then the formula is reduced to Joos's formula, and when the parameters $a = 0, b = 1$, the formula is reduced to the formula of Zipf's Law. This means that the formula of Zipf's Law and the formula of Joos are special cases of the Mandelbrot formula.

The data of 118 Mongolian loanwords in the attached appendix are fitted by Altmann-Fitter, and the automatic fitting property tells us that the Zipf-Mandelbrot model is the best of the models available in the Fitter. In order to get more detailed information of Zipf-Mandelbrot fitting, we use the Mathematica software to compute the fitting results. Take the logarithm of both sides of the equation (4) and obtain

$$\ln(f_r) = \ln(c) - b * \ln(r + a). \quad (5)$$

By using the “Nonlinear ModelFit” function in Mathematica on the data set of Mongolian loanwords, we get the parameters table as following:

	Estimate	Standard Error	t-Statistic	P-Value
a	8.88575	1.00941	8.80292	1.582×10^{-14}
b	2.37427	0.06926	34.28274	3.279×10^{-62}
$\ln(c)$	11.182701	0.33143	33.74042	1.741×10^{-61}

The value of R Squared is $R^2 = 0.9661$; from the testing parameters, we can see that the Zipf-Mandelbrot model fits very well. The data curve and fitting curve of Zipf-Mandelbrot are drawn in Figure 1, which visually shows that the fitting effect of the model is excellent.

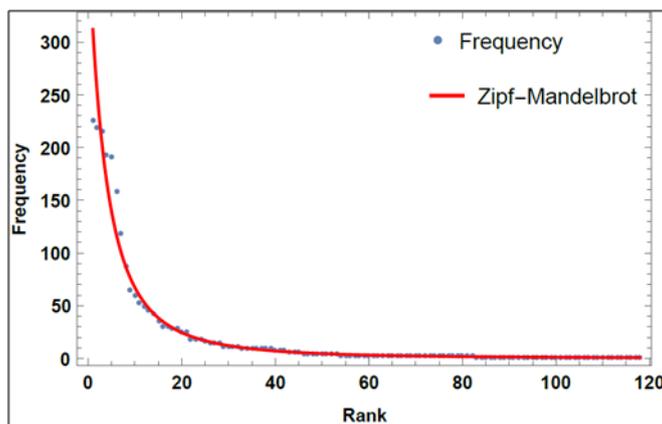


Figure 1. Original data and fitted Zipf-Mandelbrot curve

3.2 Borrowing methods and the results of computation

3.2.1 Borrowing methods

The aim of this analysis is to research the borrowing methods of English loanwords in Mongolian and to investigate their frequency distributions. Careful attention should be drawn to the fact that the structural patterns of borrowing methods can be of three types: transliteration, agglutination, and acronymization.

Transliteration is a mapping from the letters of the English script to letters pronounced similarly in the Mongolian script. As the relationship between letters and sounds is similar in both, transliteration is very close to transcription. In practice, there are some mixed transliteration/transcription systems that transliterate part of the original script and transcribe the rest. Therefore, there is more than one standard transliteration system. However, unsystematic transliteration is common. For the sake of illustration, let us take Mongolian words as examples – *injenering* is a transliteration of “engineering”, *minüt* is a transcription of “minute”, and *bangqi* is a mixture of transliteration/transcription of “bank”.

Agglutination means that words are derived from other words by adding suffixes to invariable primary stems (Poppe 1954). From the morphological point of view, all words can be divided into two classes – those with primary stems and those with secondary stems. The

agglutinative words are derived from primary stems by means of suffixes; e.g., *autočilaysan* (“automotive”) is derived from *auto* (“auto”).

Acronymization is when words are borrowed into Mongolian without any transcription into Mongolian scripts, for example, “CPI” (“Consumer Price Index”), “GDP” (“Gross domestic product”), or “TV” (“television”).

As far as the procedure of our study is concerned, we have analysed the individual English loanwords according to their borrowing methods and morphological features. The results are given in Table 3 (the full list is shown in the Appendix 2).

Table 3.
The English loanwords in terms of borrowing methods and morphological features

Borrowing methods	Morphological features	Examples	Total
Transliteration	Noun < ⁵ Noun	<i>ķompani</i> (“company”)	89
	Adjective < Adjective	<i>oryaniy</i> (“organic”)	2
Agglutination	Noun < Noun + Suffix -či/-čin	<i>boķsčín</i> (“boxer”)	3
	Noun < Noun + Suffix -la-/-le-(-ra-/-re-) + Suffix -yči/-gči	<i>ķomandalayči</i> (“commander”)	1
	Noun < Noun + Suffix -čila-/-čile- + Suffix -l	<i>autočilal</i> (“automation”)	2
	Adjective < Noun + Suffix -tu/-tü	<i>motortu</i> (“motor-assisted”)	3
	Adjective < Adjective + Suffix -tu/-tü	<i>oryaniytu</i> (“organic”)	1
	Verb < Noun + Suffix -čila-/-čile- + Nomen Perfecti -ysan-/ -gsen	<i>autočilaysan</i> (“automotive”)	3
Acronymization	Noun < Noun	CPI	14
Total			118

Table 4.
Function of each suffix

Suffix	Function
-či/-čin	Nouns designating names of vocations
-la-/-le- (-ra-/-re-)	Acquirement of a quality
-yči/-gči	Nomen actoris designates the person acting and sometimes the process of an action; it is used as subject, object, attribute, and with a copula, as predicate
-čila-/-čile	Indication of the fact the object is rendered into, made into, or made like the thing or quality designated by the primary word
-l	Nouns designating abstract ideas
-tu/-tü	Adjectives designating possession of or containment in something

⁵ “<” means “developed from”.

-ysan-/-gsen	Nomen perfecti express a completed past action, e.g., “someone who has died” or “is dead”; this form is used as subject, object, attribute, and predicate
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3.2.2 Distribution of borrowing methods and morphological features

The frequencies of models for English loanwords in terms of borrowing methods and morphological features are given in Table 5.

Table 5.
The frequencies of models for English loanwords in terms of borrowing methods and morphological features

Borrowing method	Part of speech	Morphological features	Name of models	Absolute frequency
Transliteration	Noun	< Noun	M1	2.273
	Adjective	< Adjective	M2	19
Agglutination	Noun	< Noun + Suffix -čila-/-čile- + Suffix -l	M3	3
		< Noun + Suffix -či/-čín	M4	2
		< Noun + Suffix -la-/-le- (-ra-/-re-) + Suffix -γči/-gčín	M5	2
	Adjective	< Noun + Suffix -tu/-tü	M6	11
		< Adjective + Suffix -tu/-tü	M7	8
	Verb	< Noun + Suffix -čila-/-čile- + Nomen Perfecti -ysan-/-gsen	M8	7
Acronymization	Noun	< Noun	M9	23
Total				2.348

It can be seen from Table 5 that transliteration is the primary borrowing method, with the total count of 2.292 tokens representing the proportion of 97.61% of the total number of 2,348 words.

3.2.3 The morphological model frequency distribution of rank for English loanwords in Mongolian

In the following section, we deal with two variables in the research – the model of English loanwords and the frequency of loanwords, which may give a better estimation of the manner of loanword adoption. In this analysis, the relationships have been captured by means of a power function –

$$y_r = 1 + a * r^b, \quad (6)$$

where, y is the morphological model frequency, r is the rank and a, b are the parameters. We used the Mathematica software to fit the data; the outcome of the computation is as follows –

$$y_r = 1 + 2271.9915r^{-6.5607}. \quad (7)$$

As a result, the relation between the analysed variables has been positively confirmed. The results are presented in Table 6.

Table 6.
Numerical results for the frequency of models of English loanwords and ranks

Rank	Name of models	Frequency	Computed
1	M1	2,273	2,272.99
2	M9	23	25.0681
3	M2	19	2.6833
4	M6	11	1.2550
5	M7	8	1.0590
6	M8	7	1.0178
7	M3	3	1.0065
8	M4	2	1.0027
9	M5	2	1.0013
$a = 2271.9915, b = -6.5607, R^2 = 0.9996$			

The fitting curve and the frequency data for the model are shown in Figure 2.

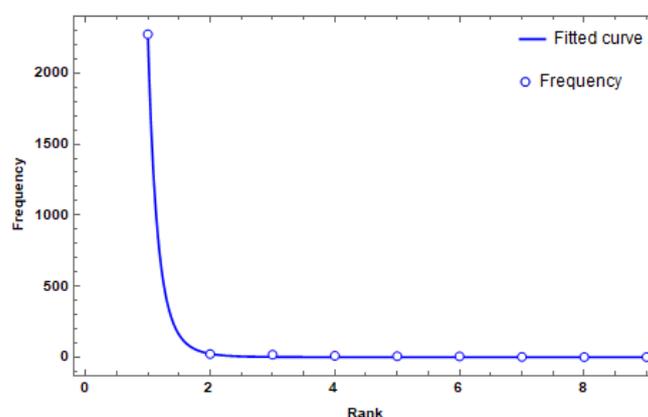


Figure 2. Rank-frequency plot of both of the frequency data and the fitted modelling

Therefore, the above-formulated hypothesis regarding English loanwords in Mongolian has been positively corroborated (see the value of the determination coefficient). Nevertheless, it is necessary to investigate more data of loanword adaptations, both of English origin and coming from other languages, in order to corroborate the aforementioned result and discover possible language laws.

4. Concluding remarks

English-originated loanwords make up an increasingly higher proportion of the words in Mongolian. The number of recent English loanwords in Mongolian is considerable and their influence continues, not only in the domain of sciences and technology, but also in the language of everyday communication. However, a quantitative analysis of the distribution of probabilities of English loanwords in Mongolian has not yet been conducted. In order to obtain the actual proportion of English loanwords in usage, we calculated occurrences of these words in a 299.027-word corpus. As a result, 2.348 English loanwords were discovered, and the main observations being listed here.

First, in order to take a look at the internal dynamics of English loanwords and discover mechanisms that are responsible for borrowings, we collected 118 distinct loanwords together with their frequencies in the real corpus. It was observed that the average frequency of English

loanwords in Mongolian is 0.79% and that English-origin nouns make up a large majority of English loanwords in Mongolian.

Second, regarding the frequency and rank of the loanwords, it is assumed that the list is ordered by decreasing frequencies. We confirmed the hypothesis that the distribution of loanword adaptation in the corpus does exactly satisfy the Zipf-Mandelbrot Law.

Third, loanwords are quickly integrated into the Mongolian language system by transliteration, agglutination, and acronymization. Transliterating and using acronyms are fairly easy ways of accepting foreign terms. On the other hand, there is a strong tendency to create semi-Mongolian equivalents for English words by means of derivation and affixation.

Finally, we developed nine models for English loanword borrowing methods and morphological features, which give a better estimation of the manner of loanword adoption. Nevertheless, it is entirely clear that we will need more data of loanword adaptation both in English and across languages (and fitted by different models, too) before we can move closer to finding a reasonable explanation and a better understanding of the nature of loanword features.

In conclusion, dynamic change of English loanwords has not been studied extensively in the Mongolian vocabulary, probably because of lack of data; nonetheless, this study has found generally consistent patterns and demonstrated the dominant role of the borrowing method and morphological features in the loanword adaptation process. The findings and the analysis of English loanwords in Mongolian can contribute to the theories of loanword adaptation in particular, and to the feature theory in general, and may be helpful for opening a new perspective in the statistical lexical research of the Mongolian language.

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Appendix I

The frequencies and the ranks of the distinct English loanwords

Latin transliteration	Part of speech	English	Frequency	Rank
<i>mašin</i>	noun	machine	226	1
<i>ķompani</i>	noun	company	219	2
<i>inķenering</i>	noun	engineering	216	3
<i>ķistem</i>	noun	system	193	4
<i>ķadr</i>	noun	cadre	192	5
<i>materiyal</i>	noun	material	158	6
<i>energi</i>	noun	energy	119	7
<i>ķilometr</i>	noun	km	88	8
<i>telvis</i>	noun	television	65	9
<i>ton</i>	noun	ton	59	10
<i>bilet</i>	noun	billet	53	11
<i>radio</i>	noun	radio	49	12
<i>metr</i>	noun	meter	46	13
<i>minüt</i>	noun	minute	43	14
<i>bangqi</i>	noun	bank	36	15
<i>tegnig</i>	noun	technique	31	16
<i>front</i>	noun	front	30	17
<i>elektoron</i>	noun	electron	29	18
<i>professor</i>	noun	professor	29	19
<i>ķiris</i>	noun	series	25	20
<i>ķart</i>	noun	card	25	21
<i>gradüs</i>	noun	grade	19	22
<i>ķilovat</i>	noun	kilowatt	19	23
<i>oryaniy</i>	adjective	organic	18	24
<i>medal</i>	noun	medal	17	25
<i>motor</i>	noun	motor	15	26
<i>element</i>	noun	element	14	27
<i>boķs</i>	noun	box	14	28
<i>baķteri</i>	noun	bacteria	12	29
<i>ķilogram</i>	noun	kilogram	12	30
<i>stok</i>	noun	stock	11	31
<i>doctor</i>	noun	doctor	11	32
<i>diyamet</i>	noun	diameter	10	33
<i>vičat</i>	noun	wechat	10	34
<i>virüs</i>	noun	virus	10	35
<i>cels</i>	noun	celsius	10	36
<i>nomertu</i>	adjective	number	9	37
<i>vidio</i>	noun	video	9	38
<i>ķarton</i>	noun	cartoon	9	39
<i>alkuul</i>	noun	alcohol	8	40
<i>oryaniyту</i>	adjective	organic	8	41

<i>kompiüter</i>	noun	computer	7	42
<i>program</i>	noun	program	6	43
<i>mašinčılal</i>	noun	machine	6	44
<i>sport</i>	noun	sport	6	45
<i>cm</i>	noun	cm	5	46
<i>autočilaysan</i>	verb	auto	5	47
<i>benzen</i>	noun	benzene	5	48
<i>meqaniy</i>	noun	mechanic	5	49
<i>doktorant</i>	noun	doctor student	5	50
<i>radar</i>	noun	radar	5	51
<i>CPI</i>	noun	CPI (consumer price index)	4	52
<i>dollar</i>	noun	dollar	4	53
<i>POS</i>	noun	POS (point of sale)	3	54
<i>autočilal</i>	noun	auto	3	55
<i>alken</i>	noun	alkene	3	56
<i>internet</i>	noun	internet	3	57
<i>net</i>	noun	net	3	58
<i>postdoktor</i>	noun	postdoctor	3	59
<i>qormon</i>	noun	hormone	3	60
<i>milimetr</i>	noun	milimeter	3	61
<i>sentimetr</i>	noun	centimeter	3	62
<i>totem</i>	noun	totem	3	63
<i>deyita</i>	noun	data	3	64
<i>filim</i>	noun	film	3	65
<i>konsül</i>	noun	consul	3	66
<i>klüb</i>	noun	club	3	67
<i>hektar</i>	noun	hectare	3	68
<i>DNA</i>	noun	DNA	2	69
<i>TV</i>	noun	TV	2	70
<i>auto</i>	noun	auto	2	71
<i>etil</i>	noun	ethyl	2	72
<i>eten</i>	noun	ethylene	2	73
<i>inžener</i>	noun	engineer	2	74
<i>olimpiķ</i>	noun	Olympic	2	75
<i>model</i>	noun	model	2	76
<i>spirt</i>	noun	spirit	2	77
<i>traķtor</i>	noun	tractor	2	78
<i>telvisčid</i>	noun	television	2	79
<i>fiziķ</i>	noun	physics	2	80
<i>ķalz</i>	noun	calcium	2	81
<i>ķomandalayči</i>	noun	command	2	82
<i>APEC</i>	noun	APEC (Asia Pacific Economic Cooperation)	1	83
<i>CEO</i>	noun	CEO (chief executive officer)	1	84

English Loanwords in Mongolian Usage

COMT	noun	COMT (catechol-O-methyltransferase)	1	85
GDP	noun	GDP (gross domestic product)	1	86
km	noun	km	1	87
LOGO	noun	LOGO	1	88
PVC	noun	PVC (polyvinyl chloride)	1	89
<i>amper</i>	noun	ampere	1	90
<i>algebra</i>	noun	algebra	1	91
<i>aķademiĉi</i>	noun	academy	1	92
<i>nomer</i>	noun	number	1	93
<i>boķsĉin</i>	noun	box	1	94
QQ	noun	QQ	1	95
<i>pasport</i>	noun	passport	1	96
<i>piza</i>	noun	pizza	1	97
<i>gram</i>	noun	gram	1	98
<i>gen</i>	noun	gene	1	99
<i>general</i>	noun	general	1	100
<i>mašinĉilaysan</i>	verb	machine	1	101
<i>mikrometr</i>	noun	micrometer	1	102
<i>motortu</i>	adjective	motor	1	103
<i>motorĉin</i>	noun	motor	1	104
<i>motorĉilaysan</i>	verb	motor	1	105
<i>liter</i>	noun	liter	1	106
<i>loyiy</i>	noun	logic	1	107
<i>ķistemtū</i>	adjective	system	1	108
<i>ķekūnt</i>	noun	second	1	109
<i>tangķ</i>	noun	tank	1	110
<i>romantiķ</i>	adjective	romantic	1	111
<i>rūbli</i>	noun	ruble	1	112
<i>visa</i>	noun	visa	1	113
<i>vitamin</i>	noun	vitamin	1	114
<i>feudal</i>	noun	feudal	1	115
<i>ķalun</i>	noun	clone	1	116
<i>ķaluri</i>	noun	calorie	1	117
<i>ķod</i>	noun	code	1	118

Appendix II

Borrowing methods and morphological features of the distinct English loanwords

Borrowing methods	Morphological features	Examples	Total
Transliteration	Noun ⁶Noun	<p><i>mašin</i> (“machine”), <i>kompani</i> (“company”), <i>inženering</i> (“engineering”), <i>šistem</i> (“system”), <i>kađr</i> (“cadre”), <i>materijal</i> (“material”), <i>energi</i> (“energy”), <i>kađometr</i> (“kilometer”), <i>telvis</i> (“television”), <i>ton</i> (“ton”), <i>bilet</i> (“billet”), <i>radio</i> (“radio”), <i>metr</i> (“meter”), <i>minüt</i> (“minute”), <i>bangqi</i> (“bank”), <i>tegnig</i> (“technic”), <i>front</i> (“front”), <i>elektoron</i> (“electron”), <i>professor</i> („professor), <i>širis</i> (“series”), <i>kađart</i> (“card”), <i>gradüs</i> (“grades”), <i>kađilovat</i> (“kilowatt”), <i>medal</i> (“medal”), <i>motor</i> (“motor”), <i>element</i> (“element”), <i>boks</i> (“box”), <i>bađteri</i> (“bacteria”), <i>kađilogram</i> (“kilogram”), <i>stođ</i> (“stock”), <i>doctor</i> (“doctor”), <i>diyametr</i> (“diameter”), <i>vičat</i> (“WeChat”), <i>virus</i> (“virus”), <i>cels</i> (“Cels”), <i>vidio</i> (“video”), <i>kađarton</i> (“cartoon”), <i>alkuul</i> (“alcohol”), <i>kompiüter</i> (“computer”), <i>program</i> (“programme”), <i>sport</i> (“sport”), <i>benzene</i> (“benzene”), <i>međaniđ</i> (“mechanic”), <i>doktorant</i> (“doctoral student”), <i>radar</i> (“radar”), <i>dollar</i> (“dollar”), <i>alken</i> (“alkene”), <i>internet</i> (“internet”), <i>net</i> (“net”), <i>postdođktor</i> (“post-doctor”), <i>qormon</i> (“hormone”), <i>milimetr</i> (“millimetre”), <i>sentimetr</i> (“centimetre”), <i>totem</i> (“totem”), <i>deđvita</i> (“data”), <i>filim</i> (“film”), <i>kađonsül</i> (“consul”), <i>kađlüb</i> (“club”), <i>heđktar</i> (“hectare”), <i>auto</i> (“auto”), <i>etil</i> (“ethyl”), <i>eten</i> (“ethylene”), <i>inđerener</i> (“engineer”), <i>olimpiđ</i> (“Olympics”), <i>model</i> (“model”), <i>spirt</i> (“spirit”), <i>trađktor</i> (“tractor”), <i>fiziđ</i> („Physics), <i>kađalz</i> („calcium), <i>amper</i> (“ampere”), <i>algebra</i> (“algebra”), <i>nomer</i> (“number”), <i>passport</i> (“passport”), <i>piza</i> (“pizza”), <i>gram</i> (“gram”), <i>gen</i> (“gene”), <i>general</i> (“general”), <i>mikrometr</i> (“micrometer”), <i>liter</i> (“liter”), <i>lođiđ</i> (“logic”), <i>sekünt</i> (“second”), <i>tangđ</i> (“tank”), <i>rübli</i> (“Rouble”), <i>visa</i> (“visa”), <i>vitamin</i> (“vitamin”), <i>feudal</i> (“feudal”), <i>kađalun</i> (“clone”), <i>kađaluri</i> (“calories”), <i>kađod</i> (“code”)</p>	89

6 “<” means “developed from”.

English Loanwords in Mongolian Usage

	Adjective < Adjective	<i>oryaniy</i> (“organic”), <i>romantiy</i> (“romantic”)	2
Agglutination	Noun < Noun + Suffix -či/-čin	<i>motorčin</i> (from “motor”), <i>boḵščin</i> (from “box”), <i>akademiči</i> (from “academy”)	3
	Noun < Noun + Suffix -la-/-le- (-ra-/-re-) + Suffix -γči/-gči	<i>ḵomandalayči</i> (from “command”)	1
	Noun < Noun + Suffix -čila-/-čile- + Suffix -l	<i>autočilal</i> (from auto) <i>mašinčilal</i> (from machine)	2
	Adjective < Noun + Suffix -tu/-tü	<i>motortu</i> (from “motor”), <i>nomertu</i> (from “number”), <i>šistemtü</i> (from “system”)	3
	Adjective < Adjective + Suffix -tu/-tü	<i>oryaniytu</i> (from “organic”)	1
	Verb < Noun + Suffix -čila-/-čile- + Nomen Perfecti - ysan-/-gsen	<i>mašinčilaysan</i> (from “machine”), <i>autočilaysan</i> (from “auto”), <i>motorčilaysan</i> (from “motor”)	3
Acronymization	Noun < Noun	cm, km, CPI, TV, GDP, IP, IT, QQ, COMT, APEC, LOGO, PVC, DNA, POS	14
Total			118