

Exploring the Translation Strategies Utilized for the Rendition of Economic Terms from English into Persian

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Abstract

Economics like other sciences is quickly developing due to the age of globalization and information exchange, and as a result, the need for coining new technical terms is becoming increasingly difficult to ignore nowadays. As such, providing suitable target language (TL) equivalences for English economic terms has turned into one of the key factors in the history of translation studies. Accordingly, based on a model of translation strategies by Vinay and Darblenet (1995), the present study sought to explore the strategies underlying the appropriate translation of economic terms from English into Persian. For this purpose, a corpus of 299 English economic terms was randomly extracted from Macmillan Dictionary of Modern Economics and was compared with their Persian equivalences suggested by three Iranian translators and used in three English to Persian dictionaries, all focusing on specialized vocabulary items pertinent to the field of economics. By comparing and contrasting the frequencies of the strategies used by the targeted translators, it was found out that these translators had the same preferences in choosing the strategies required for the rendition of the terms in the selected corpus from the source language (SL) into the TL. The results of the study also revealed that the most frequently used translation strategy is Literal translation. Notably, by providing insightful guidelines to professional translators, Iranian translation students, and lexicographers, the findings may have significant implications for highlighting the problems dominating the translation of economic terms from English into Persian.

Keywords: translation strategies, economic terms, lexicographers, TL equivalences, specialized vocabulary items

INTRODUCTION

The past thirty years have seen increasingly rapid advances in translation studies. One of the most significant discussions, which has always played a central role in the entire discipline, concerns the concept of translation equivalence for technical terms. Clearly,

subject specific terminology is a crucial distinguishing factor which makes technical translation distinct from other types of translation. As Sofer (1999) maintains, when the translation of a particular text involves specialized vocabulary items related to a technical field, it may be labeled as technical translation. From this definition, it can be stated that the presence of specialized terminology in a text is the first defining signal for technical translation. According to Newmark (1988, p. 151) "Technical Translation is a component of specified translation; It is differentiated from other kinds of translation by terminology, although terminology usually makes up about 5-10% of a text". Newmark (1988) offers some useful steps for technical translation. First of all, it is essential to read the text in order to comprehend and evaluate its degree of formality, purpose, the potential cultural and professional differences between the readership and the original one. The translator also needs to consider all components from every word to every figure, letter and punctuation mark. Technical terminology should be taken for granted as an essential tool for translators of specialized texts. From the meanings given by Sofer and Newmark, it is apparent that specialized terminology in a text which is rendered is the first segment of technical translation.

Like other sciences, Economics is advancing tremendously and there is a great need for coining new technical terms in this field which need to be named in other languages. Consequently, it is critical for lexicographers or terminologists, linguists, translators and the other concerned individuals who are involved in this task to attain suitable equivalent terms in order to help spread scientific achievements and disperse knowledge in the world. Translation of Specialized economic terms, therefore, presents one of the most prevalent problems that translators have to be wary of. Naturally, several factors may confound the issue. For one thing, most translators are not familiar with technical terms; they may fail to find an accurate equivalent term for a specific SL word. For instance, words like "supply", "share", "security", "notes", "subsidiary", "branches", "constitutional", etc. can sometimes be misinterpreted since they may have special meanings in different economic contexts. Another thing is that there are a number of English-Persian dictionaries offering Persian equivalences for the most frequent SL economic terms, and in some cases, they provide different renderings for a particular economic term. Such inconsistency in making the right choice for some equivalences in the economic dictionaries translated from English into Persian may result in confusion and impact the quality of the dictionary. The root of the problem is that some economic terms are polysemous and have more than one meaning. The issue becomes very serious especially when certain new terms may be non-existent in the semantic system of TL.

To overcome such difficulties, it has become essential to find effective translation strategies to translate economic texts from English into Persian Language, and vice versa. As noted by Lorscher (1991, p. 70), the concept of translation strategy seldom appears in translation theory and is not precisely defined. According to Lorscher (1991, p.76), translation strategy is "a potentially conscious procedure for the solution of a problem which an individual is faced with when translating a text segment from one language to another". To Provide a broader definition, Hejwowski (2004, p.76) defines a

translation strategy as "a translator's (consciously or unconsciously) preferred procedure within an entire text or its significant passages" and distinguishes this concept from technique, which he defines as "the choice of a solution to a specific problem encountered during the translation process".

Despite attempts to recognize the most effective and useful translation strategies in different specialized fields, few studies, if any, have considered the field of Economics. In fact, there are no suitable Persian dictionaries on specialized economic terms employed in different TL texts treating economic issues. Accordingly, this study is focused on analyzing the equivalences proposed by three English-Persian dictionaries for some technical economic terms and investigated translation strategies in providing the proper equivalences. Performing this activity helps ascertain which translation strategies are more dominant, and whether or not the strategies adopted by lexicographers are appropriate.

In the following, section 2 will attempts to discuss the literature related to the area of research and introduce views of scholars on translation strategies and will briefly review its theoretical and empirical backgrounds. Section 3 explains the methodology and materials utilized by the researcher to conduct the research. The findings regarding the frequencies and percentages of different translation strategies as well as the results of running statistical tests are presented in section 4, followed by a discussion of the results in section 5 as well as the concluding remarks in section 6.

LITERATURE REVIEW

A number of scholars (Chesterman, 1997; Hejwowski, 2004; Kearns, 2009) believe that the term "strategy" is used to describe different concepts in the field of translation. Konigs (1987) and Wills (1983), cited by Lorscher (1991, p.70), conceive translation methods and translation strategies differently. In their view, translation strategies are "procedures, often of a highly individual kind, which are applied when a source-language text is transferred into the target-language" and which "can, but need not, result in an optimal translation", while translation methods "are supra individual, tried and tested procedures which, when applied systematically by the translator, guarantee a high degree of success. Nonetheless, Lorscher (1991, p. 71) notes that "even though this distinction is theoretically reasonable, it must be acknowledged that translation strategies have hardly been investigated in translation theory and that practicable translation methods are not much more than a desideratum at the moment".

Many other authors (Seguinot, 1989; Lorscher, 1991; Jaaskelainen, 1993, cited by Kearns, 2009, p. 283) made a similar distinction between "local" and "global" translation strategies. Chesterman (1997, pp. 90-91) defined "global strategies" as an answer to the question "how to translate this text or this kind of text", while according to his words "local strategies" are used to respond the question "how to translate this structure/this idea/this item". The classic concept of Vinay and Darbelnet (1958) and that of Newmark (1988) as the "translation method" and "translation Procedure" might be equated with the terms "global" and "local" strategies respectively.

In 1958, Vinay and Darbelnet, in their seminal study, titled *stilistique compare du francais et de l' analais Method de traduction'*, done a comparative stylistic analysis of French and English. They observed texts in French and English and mentioned differences in the languages and identified different translation 'strategies ' and ' procedures '. As a matter of fact these two terms are often confused or used interchangeably in writing about translation, Munday (2012, p. 86) gives a definition for each as follows : In the technical sense, a strategy is an overall orientation of the translator (e. g. towards ' free ' or ' literal translation ', towards the target text or source text, towards domestication of foreignization) while a procedure is a specific technique or method used by the translator at a certain point in a text (e. g. the borrowing of a word from the source language, the addition of an explanation or a footnote in the target text).

As noted by Munday (2012, p.86), Vinay and Darbelnet (1958) introduce two general strategies of direct translation and oblique translation. Within the framework of direct translation they list three procedures: borrowing, calque and literal translation. In the context of oblique translation they enumerate four procedures: transposition, modulation, equivalence and adaptation. According to the authors, in the borrowing procedure, the source-language word is directly taken into the target language as it is (Munday, 2012). For example, the word (mashin) in Persian is an instance of borrowing. As a matter of fact, it is the English word "machine" that has been directly taken into Persian. This process is applied either to "fill a semantic gap" or to add "local colour". Of course, when a term is borrowed from one language into another, it goes under some phonological changes in order to comply with the phonological rules of the target language. Calque procedure is a special kind of borrowing where the source language expression or structure is transferred to the target language in literal translation. For example, the term (*otaghake eteraf*) in Persian is an instance of calque. This term is the literal translation of the English term "confession -box". Literal translation is word-forword translation which is explained by Vinay and Darbelnet (1958) as being the most common translation procedure between languages of the same family and culture (Munday, 2012). For example, the literal translation of the sentence 'I have a red car ' is (man yek mashine ghermez daram). Literal translation is Vinay and Darbelnet's description for accurate translation (Munday, 2012).

As stated by Munday (2012, p.87), in the context of oblique translation Vinay and Darbelnet enumerate four procedures: transposition, modulation, equivalence and adaptation. Munday (2012, p.87) defined transposition as "the change of one part of speech for another (e.g. noun for verb) without changing the sense". According to Vinay and Darbelnet (1995, p. 94) transposition is "probably the most common structural change undertaken by translators". For instance "He likes to swim" into Persian (*an mard shena ra doost darad*) is considered as an act of transposition because the English verb "to swim" has been rendered into the Persian noun (*shena*) meaning "swimming". Modulation, according to Munday (2012, p.88), "change the semantics and point of view of the SL". For instance, if the English sentence ' It is not difficult to achieve those objectives ' is translated into Persian as (*dastresi be an asan ast*) meaning "it is easy to

achieve objectives", then the strategy of modulation has been applied. As noted by Munday (2012, p.89), In Vinay and Darbelnet's classification, the term equivalence denotes to cases where "Languages describe the same situation by different stylistic or structural means". Accordingly, Munday (2012, p.89) declared that "**equivalence** is particularly useful in translating idioms and proverbs". For instance, if an English idiom "like a bear with a sore head" is rendered into Persian as (*mesle borje zahremar*), meaning "like a tower of snake venom", the strategy of equivalence has been applied. Finally, as Munday (2012, p.89) believed, the procedure of adaptation entails "changing the cultural reference when a situation in the source culture does not exist in the target culture". For example, the cultural connotation of a reference in an American English text to the game of basketball might be best translated into Persian by a reference to the game of soccer because soccer has a position in Persian culture exactly similar to that of basketball in American culture.

According to Newmark (1988, p.81), "while translation methods relate to whole texts, translation procedures are used for sentences and the smaller units of language". Newmark's classification of translation methods and procedures partially overlaps that of Vinay and Darbelnet but is much more detailed. He classified translation methods into 15 subcategories of transference; naturalization; cultural equivalent; functional equivalent; descriptive equivalent; synonymy; through translation; shifts or transposition; modulation, recognized translation; compensation; componential analysis; paraphrase; couplets; notes, addition, and glasses. According to Newmark (1988, p.81), "transference is the process of transferring an SL word to a TL text". It entails transliteration, i.e. the conversion of different source language into the target language text. In naturalization process, the SL term is first adapted to the normal pronunciation, and then to the normal morphology of TL (Newmark, 1988). For instance, the Persian term (mashin) could be considered as examples of naturalization. In Cultural Equivalent process, a SL cultural term is replaced by a TL cultural term. According to Newmark (1988, p.83), cultural equivalents "are not accurate, but they can be used in general texts, publicity and propaganda, as well as for brief explanation to readers who are ignorant of the relevance of the related SL culture". Functional Equivalent is defined by Newmark (1988, p.83) as "the common procedure applied to cultural words requires the use of a culture-free word, sometimes with a new specific term; it, therefore, neutralizes or generalizes the SL word". Newmark explains Descriptive Equivalent procedure as follows:

In translation, description sometimes has to be weighed against function. Thus for 'machete', the description is 'a Latin American broad, 'heavy instrument', the function is 'cutting or aggression'; description and function are combined in 'knife', 'Samurai ' is described as ' the Japanese aristocracy from the eleventh to the nineteenth century'; its function was ' to provide officers and administrators'. Description and function are essential elements in explanation and therefore in translation. In translation discussions, function used to be neglected; now it tends to be overplayed. (Newmark 1988, p. 84)

The strategy of synonymy is adopted when there is no clear one by one equivalence in the target language for the source term. Here, in case the source language is not very important, the translator could use a near equivalence in the target language (Newmark, 1988). Through Translation is the same as calque or loan translation discussed before where the source language term is taken into the target language in literal translation. But, Newmark (1988, p.84) prefers to name it "through translation". Newmark borrows the concepts of Shifts or Transposition from Catford and Vinay and Darbelnet. According to Newmark (1988, p. 85) "a shift (Catford's term) or transposition (Vinay and Darbelnet) is a translation procedure involving a change in the grammar from source language to target language". The term Modulation was initially coined by Vinay and Darbelnet to refer to a situation where the semantics and the point of view of the source language are changed in the process of translation. In the process of Recognized Translation, the translator normally uses the official or the generally accepted translation of any institutional term and in case he/she does not agree with the conventional term, he/she can gloss it in order to indirectly show his/her disagreement with the official version (Newmark, 1988). As clarified by Newmark (1988, p.90), Compensation occurs "when loss of meaning, sound effect, metaphor or pragmatic effect in one part of a sentence is compensated in another part, or in a contiguous sentence" but Componential Analysis is the process of comparing"an SL word with a TL word which has a similar meaning but is not an obvious one-to-one equivalence, by demonstrating first their common and then their differing sense components". Newmark (1988, p.114), defined Paraphrase as "an amplification or explanation of the meaning of a segment of the text". Couplets, triplets and quadruplets combine two, three or four of the above mentioned procedures to tackle a single problem (Newmark, 1988). This strategy is called "combination" by Schaffner and Wiesemann (2001, p. 34), and Chesterman (1997, p. 95) used the term "double presentation" for this strategy. Finally, Notes are additional information that a translator may add to their version. These notes are usually cultural, technical, or linguistic (Newmark, 1988). According to Newmark (1988, p. 93), If you are translating an important book, you should not hesitate to write a preface and note to discuss the usage and meanings of the author's terms, particularly where you sacrificed accuracy for economy in the translation, or where there is ambiguity in the text.

Alternatively, Kade (cited in Pym 2010) believes the four strategies may be used for establishing equivalence. First, One-to-One Equivalence is used in the contexts where one source- language item corresponds to one target-language item. Second, One to Several Equivalence is a translation technique in which an item in one language may be equated with several items in the other language (Kade, 1968). Third, One-to-Part Equivalence is a strategy which applies only to situations involving partial equivalence. Finally, One-to-None Equivalence is applicable to circumstances where no equivalence may be pinpointed for a given source- language term. In this case, translators may have to either use a circumlocution technique to define the source- language term, or borrow the source-language term into the target language.

In another classification, translation strategies can be divided into "procedural" and "textual" as well (Molina & Hurtado Albir, 2002, cited by Kearns, 2009, p. 283). The procedural sense was first investigated by Lorscher (1991, 2005) who defines the translation strategies as a list of procedures including realizing a translation problem, testing a solution to the translation problem, monitoring text segments, rephrasing text segments and organizing discourse. Seguinot (1989, cited by Bell, 1998, p. 188) takes a procedural approach to translation strategies as well and names three global strategies used by translators: "(a) translate without interruption for as long as possible, (b) correct surface errors immediately ... but leave errors involving meaning until a natural break occurs, typically at the end of a clause or sentence, and (c) leave the monitoring for qualitative or stylistic errors in the text to the revision stage". In turn, the term "textual strategies" used to describe the results of procedures rather than the procedures themselves (Kearns, 2009, p. 283). Chesterman's classification of translation strategies can be considered as an example of textual sense. According to the taxonomy proposed by Chesterman (1977, p.93), there are three groups of strategies, namely syntactic, semantic and pragmatic strategies. Also, the aforementioned classifications of Vinay and Darbelnet and of Newmark might be regarded as relating to textual strategies.

Moreover, the strategies of translation can be divided into "comprehension strategies", referring to the analysis of the source text, and "production strategies", referring to the production of the target text (Gile, 1992, 1995, cited by Chesterman, 1997, p. 93). As noted by Kearns (2009), although comprehension strategies were the subject of some research (e.g. Kupsch-Losereit, 2000), much greater attention was paid to production strategies.

Surprisingly, the investigation of effective translation strategies utilized for the rendition of Economic terms from English to Persian has not received much attention, however a variety of studies have been conducted on translation strategies in other pacified field as well as other languages.

In two studies similar to the present research titled "A Study of Translation of English Literary Terms into Persian" by Mohammadi (2011) and "A Study of Translation Strategies and Term-Formation Methods Used in the Translation of Specialized Terms of Psychology from English to Persian" by Shabanipoor (2013), the translation procedures suggested by Vinay and Darbelnet (1958) used in translating English investigated specialized terms of literature and psychology were investigated. According to Mohammadi's (2011) study, among the translation procedures used by translators, the equivalence strategy had the greatest frequency of use in the process of translating the English literary terms into Persian, and according to Shabanipoor's (2013) study, among the translation procedures used by translators, the literal translation strategy had the most frequency of use in the process of translation strategy had the most frequency of use in the process of translation strategy had the most frequency of use in the process of translation strategy had the most frequency of use in the process of translation strategy had the most frequency of use in the process of translating the English psychology terms into Persian.

In a similar study, Chalack and Forutanian (2014) conducted a study on accounting terminology. They believed that translating accounting documents, in general, and

accounting terminology, in particular is not a trivial task especially, when the new terms keep being created in pace with accounting development. They attempted to review the theoretical issues relating to the translation of terminology and word formation patterns to form accounting terminology in English and Persian as well as strategies and procedures applied in the translation of accounting terms. Their study implied the question asked in accounting: How do translators deal with such terms that do not have equivalence in the target culture? Their observation suggest that appropriate translation strategies employed by professional translators are transposition and paraphrase and the most frequently employed patterns of word formation for rendering the accounting term in English and Persian is compounding (noun + noun) and (adjective + noun).

On the basis of the above, the present study aimed at analyzing the equivalences proposed by three English-Persian dictionaries for some technical economic terms and investigates which translation strategies have been taken by them in providing the proper equivalences.

METHODOLOGY

Materials

In this research the data used contained 299 English economic terms extracted from *Macmillan Dictionary of Modern Economics*, (3rd Edition) written by David W. Pearce (1986) and the Persian equivalences proposed for these terms by three English-Persian dictionaries:

a) Farhang (2000). Dictionary of Economics, Tehran: Paykan Press.

b) Mostofizadeh Haghighi (1996). Vocabulary of Economics, Tehran: Iran University Press.

c) Farhadi (1992). A Dictionary of Economic Terms and Related Fields, Tehran: Pishbord Publishers.

The Persian dictionaries were used as the sources of the data in this study. The number of Persian equivalences in these dictionaries was up to 2325. In other words, the equivalences proposed by each lexicographer for English economic terms were added together in order to have a complete Persian corpus.

Procedures

Concerning to achieve the purposes of this research, the following steps were taken to collect and analyze data. In the first step, the book titled "*Macmillan Dictionary of Modern Economics*" (1986) was studied and a sample of 299 English economic terms were randomly selected from this book. Afterwards, three English-Persian dictionaries collected by Farhang (2000), Mostofizadeh Haghighi (1996) and Farhadi (1992) were investigated and the Persian equivalences suggested by these three dictionaries for the English terms were gathered. In the next step, model of Vinay and Darbelent (1958)

which proposed translation procedure at the level of lexis was applied to the translations to observe which procedures had been employed by the Persian lexicographers. Then, the frequency of each procedure was calculated and their percentages in the total 2325 equivalences in general as well as in the equivalences proposed by each lexicographer were presented separately. At the end, based on the data analysis, the researcher attempted to answer the research questions and came to conclusions.

Data Analysis

The data obtained from *Macmillan Dictionary of Modern Economics* (1986) and the three English-Persian dictionaries analyzed according to model of Vinay and Darbelnet's (1958) translation strategies and procedures as in table 1 below.

Stratogy	Drogoduro	Example		
Strategy	Flocedule	English	Persian	
	Borrowing: the source-language word is directly taken into the target language as it is	Logarithm	(logaritm)	
Direct Translation	Calque: a special kind of borrowing ' where the source language expression or structure is transferred to the target language in literal translation	Monetary authorities	(maghamate pooli)	
	Literal Translation: word-for-word translation	Absolute income hypothesis	(farziyeyeh daramade motlagh)	
	Transposition (usable at levels beyond lexicon)			
Oblique Translation	Modulation (usable at levels beyond lexicon)			
	Equivalence: the strategy that the translator translates the source language term by using existing terms in the target language.	Market	(bazar)	
	Adaptation (usable at levels beyond lexicon)			

Table 1. Vinay and Darbelnet's (1958) Classification System for Translation Strategies and Procedures

After identifying and categorizing the translation procedures, a quantitative analysis was conducted to determine the frequency of different types of procedures and to find the differences and similarities between the three lexicographers in this regard. Since a single judgment seemed to be inadequate, the dictionaries were also analyzed independently by an expert by coding different translation procedures. An inter-rater reliability of 0.87 was obtained which indicated that the coding was acceptable. Then, the frequency of each procedure was calculated and subjected to evaluate the percentage of each translation procedure in the total number of equivalences in general (2325) as well as in the equivalences proposed by each lexicographer through the results of cross tabulation. In order to investigate any similarities and differences

between the frequencies of different translation procedures used to find Persian equivalences for English economic words, Chi Square test was conducted at .05 level of significance.

RESULTS

In order to provide an overall evaluation of the total frequency of different translation procedures utilized to translate the chosen economic words, the frequencies and percentages are presented in Table 2 below.

Translation procedures	Total frequency	Percentage
Borrowing	116	4.99
Calque	841	36.17
Literal translation	1006	43.27
Equivalence	362	15.57
Total	2325	100.00

Table 2. Total Frequency and Percentage of use of the Four Translation Procedures

As provided in table 2, among all translation procedures used by different lexicographers to translate English economic words, literal translation was the most frequent procedure (43.27%). Calque was the second most numerous procedure (36.17%), followed by equivalence procedure (15.57%). Borrowing was utilized the least (4.99%) for rendering the economic words. Aforementioned results are illustrated graphically in Figure 1 below.



Figure 1. Pie chart showing the percentage of the total frequency for the four Translation Procedures

According to the results illustrated in the above figure, with respect to the translation procedures, based on the frequency of use in the process of rendering the English economics terms into Persian, literal translation (43.27), calque (36.17), equivalence (15.57), and borrowing (4.99) had the first to fourth places, respectively.

Table 3 shows the frequency and percentage of different translation procedures utilized by each lexicographer to make proper equivalences for economic words in the form of a Cross Tab.

			Translation procedures				
			Borrow ing	Calq ue	Literal Translati on	Equivalen ce	Total
srs		Count	24	214	245	90	573
raphe	Farhang	% within Different Lexicographers	4.2%	37.3 %	42.8%	15.7%	100.0%
t Lexicog	Mostofizad	Count	41	212	244	102	599
	eh Haghighi	% within Different Lexicographers	6.8%	35.4 %	40.7%	17.0%	100.0%
uə.		Count	51	415	517	170	1153
Differ	Farhadi	% within Different Lexicographers	4.4%	36.0 %	44.8%	14.7%	100.0%
		Count	116	841	1006	362	2325
Total		% within Different Lexicographers	5.0%	36.2 %	43.3%	15.6%	100.0%

Table 3. Cross Tabulation Results for Different Translation Procedures Utilized byDifferent Lexicographers

As seen in Table 3, in terms of frequency of use, the ranks of all four translation procedures was the same from one Lexicographer to the other. In other words, all three Lexicographers had the same preferences to use different types of translation procedures. The most frequent procedure utilized by all three Lexicographers was literal translation, followed by calque and equivalence. The least numerous procedure applied to translate economic words was borrowing in all three English-Persian dictionaries. Having another look to Table 2, one can easily infer that literal translation was applied the most by Farhadi (44.8%) and the least by Mostofizadeh Haghighi (40.7%). As for the calque procedure, Farhang was the lexicographer who used this procedure the most (37.3%), however the least frequency was utilized by Mostofizadeh Haghighi (35.4%). In the case of equivalence and borrowing procedure, Mostofizadeh used more frequency of these procedures (15.7% for equivalence and 6.8% for borrowing) compared to the other two compliers. To investigate any significant difference between the frequencies of different translation strategies used by different Lexicographers to render economic words, a Chi-square test was applied at .05 level of significance. Table 4 shows the results of running this test.

Table 4. Results of Chi-Square Test for Different Translation Procedures Used byDifferent Lexicographers

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	8.851ª	6	.182
Likelihood Ratio	8.483	6	.205
Linear-by-Linear Association	.006	1	.940
N of Valid Cases	2325		

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 28.59.

As presented in Table 4, the significance value of the test (.182) was greater than the specified level of the significance in this study (.05). Thus, the conclusion would be that there was no statistically significant association between different Lexicographers and

the frequency of different types of translation procedures utilized to translate economic words; that is, in all three dictionaries, the lexicographers applied different translation procedures in the same order of literal translation, calque, equivalence and borrowing respectively.

DISCUSSION

According to the findings, of the seven translation procedures offered by Vinay and Darbelnet (1958) (i.e. borrowing, calque, literal translation, transposition, modulation, equivalence, and adaptation) four procedures (i.e. borrowing, calque, literal translation, and equivalence) have been utilized by the three Persian lexicographers to render the English specialized economic terms. The other translation procedures (i.e. transposition, modulation, and adaptation) have not been applied by these lexicographers due to the fact that these procedures are usable at levels beyond lexicon. Tables 5 to 8 show examples of the use of these four procedures by different lexicographers:

Table 5. Translation Procedures Utilized by Three Lexicographers in Rendition of'Logarithm' into Persian

Lexicographer/ Economic term	Farhang	Mostofizadeh Haghighi	Farhadi
Loganithm	logaritm	logaritm	logaritm
Logarithm	Borrowing	Borrowing	Borrowing

"Logarithm" is defined as "the logarithm of a number is that power to which the bases of the logarithm must be raised to be equal to that number" (Pearce, 1986, p. 57). As it is clear from Table 5, all the three lexicographers have used "logarithm" refer to this concept. This is the example of the borrowing.

Table 6. Translation Procedures Utilized by Three Lexicographers in Rendition of'Monetary Authorities' into Persian

Lexicographers/ Economic term	Farhang	Mostofizadeh Haghighi	Farhadi
monotomy outboxition	maghamate pooli	maghamate pooli	maghamate pooli
monetary authoritie	Calque	Calque	Calque

Macmillan Dictionary of Modern Economics (1986, p. 280) defines "monetary authorities" as "a general term denoting the agency or agencies responsible for the overseeing of the monetary system and the execution of MONETARY POLICY and EXCHANGE RATE policy". Persian translators have borrowed the concept and have coined a term literally. As shown in Table 6, all the three Lexicographers have suggested the Persian expression "maghamate pooli" which contains monetary (pooli) and authorities (maghamat). So, this is an instance of the use of calque.

Lexicographers/ Economic term	Farhang	Mostofizadeh Haghighi	Farhadi
Absolute income	farziyeyeh daramade motlagh	farziyeyeh daramade motlagh	farziyeyeh daramade motlagh
hypothesis	literal translation	literal translation	literal translation

Table 7. Translation Procedures Utilized by Three Lexicographers in Rendition of'Absolute Income Hypothesis' into Persian

"Absolute income hypothesis", as explained in *Macmillan Dictionary of Modern Economics* (1986, p.2) refers to "the consumption expenditures are a function solely of current personal disposable income". As it is presented in Table 7, Persian expression "farziyeyeh daramade motlagh" has been suggested as the equivalence of the term "absolute income hypothesis". As a matter of fact, all the three lexicographers have employed the definition of the concept of 'absolute income hypothesis' and then have coined term in Persian language in accordance to that definition. Therefore, it is the example of literal translation.

Table 8. Translation Procedures Utilized by Three Lexicographers in Rendition of'Market' into Persian

Lexicographers/ Eonomic term	Farhang	Mostofizadeh Haghighi	Farhadi
Market	bazar / mahale moamelat / makane kharido foroosh	bazar	bazar
	Equivalence/ literal translation/ literal translation	Equivalence	Equivalence

According to *Macmillan Dictionary of Modern Economics* (1986, p. 263) "market" refers to "generally, any context in which the sale and purchase of goods and services takes place". The concept of market has always existed in the Persian language and culture. Therefore, as presented in Table 8, three Persian equivalences have been suggested by the three lexicographers for this term: "bazar / mahale moamelat / mahale makane kharido foroosh". Farhang (2000), the first lexicographers, has bothered himself and adopted literal translation as his procedure in addition to using of equivalence in transferring "market" to Persian. He had better use the same equivalence as the other two translators did in order to prevent inconsistency in Persian economic term dictionaries. The use of the term "bazar" is an example of equivalence because this term is a Persian term that is referring exactly to that source language concept. This is the example of the equivalence procedure in translation.

The basis of this research was 299 English economic terms. Three Persian lexicographers chosen in this study, have suggested 2325 equivalences for this 299 English economic terms. This difference suggests that there is no exact one- to- one equivalence or correspondence between the English terms and their Persian equivalences. In fact, since most of the English economic terms do not have a fixed equivalence in Persian, the lexicographers of English-Persian dictionaries have tried to find as many Persian equivalences as possible to carry the meaning of the source

language term. This absence of one-to-one correspondence between the English terms and their Persian equivalences illustrates no equivalence between the two languages especially in this study. This is contrary to the proposition of equivalence explained as the existence of "equal value" between the two languages (Pym, 2010, p.6).

In the most cases none of equivalences suggested by the dictionaries have equal value with their English terms. Therefore, it is worth noting that the lexicographers do not reach an agreement in applying one single term or strategy for conveying the particular meaning of an economic term. This fact can make confusion and becomes cumbersome for target readers since different economic passages might apply different terms and expressions to refer to a particular concept. In contrast, the translator has the flexibility to use synonyms in order to avoid repetition. It is quite necessary for translators to be precise and they should use the same term consistently for a particular word. In other words, adopting a "literary" approach in technical texts may lead to confusion and Therefore, translating any non-fiction complexity. requires uniform and comprehensible terms and equivalences in the target language. It is important to preserve consistency when translating specialized text, using the same term in order to avoid misunderstanding. (C.F. Sim & Pop, 2012, pp.156).

The study also identified some incorrect equivalences proposed by the lexicographers for some cases. For example, according to Macmillan Dictionary of Modern economics, 'Primary goods' refers to "as defined in the theory of justice developed by John Rawls, these goods are the basic rights, freedoms, income and wealth which are available for distribution in a society. Rawl's concept of DISTRIBUTIVE JUSTICE is framed in terms of the distribution of these goods between individuals "(p.339). Farhang (2000) has wrongly rendered it as 'nikihaye nakhostin'. He fails to convey the intended meaning of the original term. But, the two other lexicographers have proposed' kalahaye avaliye' and 'mahsulate avaliye'. The other problems identified in this study are that the lexicographers have proposed the equivalences for some economic terms that are misleading and uncommon among economists. For instance, Farhang (2000) has suggested the equivalence "mazayaye moghayesehi" for the term of "comparative advantage ", while the common equivalences of this term are "bartariye nesbi / maziyate nesbi" for economists. There are other examples such as "fixed charges", "floating charges", "ear marking" and so on that have uncommon and misleading equivalent terms. In some cases the translators have used calque, meaningless and misleading equivalences without knowing accurate meaning. There are some cases that a term has many different Persian equivalences. For example, Farhadi (1992) has proposed for the term "capital expenditure", the equivalence of "hazinehaye tasisati ", while this term means "makhareje sarmaye" in Persian which is common among economists.

The findings show that among the four translation procedures used by these three lexicographers (i.e. borrowing, calque, literal translation, and equivalence), literal translation has the highest frequency. However, some researchers have investigated the translation strategies used in the translation of specialized terms from English into Persian, few studies, if any, have compared the effective strategies in translation of

economic words from English to Persian. Despite this lack of empirical evidence in this regard, findings of the study coincided with Shabanipoor's (2013) research, in which He indicated among the translation procedures used by translators, the literal translation strategy had the most frequency of use in the process of translating the English psychology terms into Persian. The advantage of the literal translation procedure is having predominance in the terminology translation. As Vinay and Darbelnet (1995) explained that literal translation is the most common translation procedure between languages. Therefore, it is necessary to take account of definition of one term except for its superficial meaning. Only in this way can we get a proper translation and a comprehensive understanding of the economic terms. However, the disadvantage of using this procedure is associated with difficulty to understand some terms, the lexicographers of the three considered dictionaries have adopted terms in the target language based on adding some words not found in the original English terms which often result in too long expressions rather than terms précised, perceived as single words or collocations. At times, Literal translation can only provide a clue about the overall meaning, and it might as well be misleading.

Apart from literal translation, the second procedure adopted by all three considered dictionaries was "calque", which means expressions taken by one language (Persian) from another (English) in a more or less literally translated form (New Oxford Dictionary of English, 2001). In most cases, the writers of the three assumed that dictionaries have imported the terms by means of ready- to-use loans or calques without reflecting or worrying too much about their linguistic adequacy in Persian language. The main reasons for using loan translation or calque are as follows: 1) Lack of subject knowledge on the part of terminology lexicographers of dictionaries or translators, 2) Source language influence, 3) Incomprehension of source language. Calque is nowadays the most effective and prevalent translation technique in scientific translation, without which the translation of many scientific texts including economic texts would be almost impossible. Equivalence and borrowing are in the third and fourth places, respectively.

Finally, the non-significant relationship between the frequency of utilizing different translation procedure and different lexicographers suggested that different lexicographers have the same preferences in choosing the proper translation strategies to translate economic words from English to Persian. In general, studying these procedures revealed that although different lexicographers might apply different translation procedure to translate a particular economic term, they utilized the same order of these procedures in terms of frequency of applying each to translate economic words.

CONCLUSION

The present study sought to examine different translation strategies adopted by authors of three different dictionaries in providing equivalences for economic terms from English into Persian, to seek the most effective ones. It also aimed to investigate similarities and differences between three different lexicographers regarding the use of different types of translation procedures. Based on the results, it was concluded that all the three lexicographers used literal translation and calque procedures more frequently than the other two procedures (i.e. equivalence and borrowing). The findings substantiated the view that literal translation is the most common translation procedure used by translators. It also supported the claims of Vinay and Darbelnet (1995), who believed that Literal translation reflects accurate translation (Munday, 2012).

Moreover, it was identified that there are deficiencies and weaknesses in the dictionaries in finding equivalences. First, in most cases there are many inconsistencies among equivalences for the English terms as there is more than one equivalent for an English term. In other words, economic terminology deprives from multiple and redundant terms describing the same notion or concept. Multiplicity of terms made by the plurality of synonyms is considered a symptom of linguistic malady and flaccidity. This phenomenon causes ambiguity and confusion for users. Second, there are unusual equivalences for some terms. Third, in some cases there are inaccurate and misleading equivalences. It may be observed that providing such equivalence for the economic terms may change not only the message of a document under translation, but also the image and the position of a company. Fourth, in many cases there are explanatory definitions for a particular English term rather than a fixed or definite equivalence. Therefore, it requires coining new terms, borrowing terms from the other languages or utilizing common terms with different meanings to eliminate their needs. Fifth, in some cases there are wrong forms of English terms in the three considered English -Persian dictionaries.

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