Equivalence in Technical Texts: The Case of Accounting Terms in English-Persian Dictionaries

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Abstract
Translating accounting documents, in general, and accounting terminology, in particular, is not a simple task, especially when the new terms keep created in pace with accounting developments. This study was carried out to find the most common and preferable ways to translate accounting terms from English into Persian. Also, an attempt was made to identify the frequently used patterns of word-formation in the rendition of technical terms in English and Persian. To this end, Mir dictionary was selected and the accounting terms were identified and categorized. Then, patterns of word-formation in English and Persian were identified. Also, a comparison was made between the English accounting terms and their Persian equivalents in order to determine the translation strategies used. The results of the study revealed that the most frequently employed patterns of word-formation for rendering the accounting terms in English and Persian are noun+noun and adj+noun and the most commonly used translation strategy is transposition.

Keywords: English-Persian equivalence, accounting terminology, word-formation, translation strategy, transposition

The idea of equivalence forms the basis of many theories of translation and, by implication, definitions of translation quality. But the term equivalence, however, is fraught with difficulties. Newmark (1991, p.75) claims that "the cerebration and the brain racking about translation equivalence goes on forever". He goes on to say that translation equivalence cannot be defined and as such, there are only degrees of equivalence. While there are numerous definitions and types of equivalence, they all rely on one thing: a link or bond of some sort between the source text and the target text. As Catford (1965, p.49) explains "the TL text must be relatable to at least some of the situational features to which the SL text is relatable".

A surprising number of people within technical translation share this belief that vocabulary is the most significant linguistic feature of technical texts. This is true insofar as terminology is, perhaps, the most immediately noticeable aspect of a technical text and indeed it gives the text the fuel it needs to convey the information. Nevertheless, Newmark (1988) has claimed that terminology accounts for at most just 5- 10% of the total content of technical texts yet there is a disproportionate amount of attention devoted to terminology and lexical issues in technical translation. A simple subject search for „technical translation" on the BITRA bibliographic database reveals that more than half of the 150 entries found relate to terminological or lexical issues. The difference between an SL and a TL and the variation in their system makes the process of translation a real challenge. Thus, the use of technical terms to communicate technical information can lead to misunderstandings when the meaning of such terms is not fully appreciated by the recipient of the information. How do translators deal with these terms that do not have equivalent in the target culture?

The discipline of translation studies suggests that full equivalence in translation between languages is rare. Therefore, the translation of technical documents plays an important role and is of great concern. However, such a translation from English into Persian or vice versa is a big challenge because of the differences between English and Persian languages as each language has its own lexicon as well as its own grammatical structures. Translating technical documents in general and terminology in particular is not a simple task, especially when the new terms keep created in pace with the technology developments. There are linguistic differences between the two language systems and the most noticeable difficulty is the problem of how to deal with non-equivalent technical terms.

Literature Review

The difficulties associated with the process of translation have been widely commented on by scholars and professional translators, but they become highly remarkable when we deal with language students learning to translate into their native language. The comparison of texts in different languages inevitably involves a theory of equivalence (Leonardi, 2000). Finding equivalents in translation involves decoding the source language (SL) text and making an attempt to find an appropriate equivalent in the Target Language (TL) text to encode whatever has been decoded in SL (Baker, 1992). The domain of equivalents covers linguistic units such as morphemes, words, phrases, clauses, idioms and proverbs (Baker, 1992). Despite its major role in translation of technical text, equivalence received most attention in the literary context (Nida & Taber, 1982). There have not been many cross- linguistic and cross- disciplinary studies on finding equivalence in translation of scientific texts. The limited numbers of studies which are conducted in this area have shown that there are some variations in the use of equivalence strategies across languages (Baker, 1992; House, 1997). According to Hatim and Mason (1990), even at word level, there is rarely any one to one correspondence between any two languages, as words in each language tend to have different meaning components. Also the use of a glossary is essential for successful translations and professional usage of English for specific purposes. However users are often not equipped with the exact English terminology required in very specific sectors. This glossary provides accounting key words that attempt to describe a specialty language through a lexical approach, by compiling a bilingual glossary in an ESP subject field, and has mostly been compiled by finding the similarities and differences in structures or style of accounting terms between English and Persian.

This study aimed at reviewing 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. This research study, therefore, first aimed at investigating, whether or not any specific strategy is frequently used in the translation of accounting terms from English into Persian in accounting dictionary and second, if there are frequently used patterns of word formation in the rendition of technical terms in English and Persian in accounting texts.

Methodology

Mir accounting dictionary was selected as a representative sample for gathering data. It was first published in 1997 (1376, Persian calendar) and the second edition came out 2009(1388, Persian calendar) with six reprints. It has 16000 terms and 26 entries. This study follows the model proposed by Halliday (1985). Compound terms were classified into different groups according to the relationship between the Thing and other elements of the compound terms as detailed below.

One-Word Terms

Some of the accounting terms are normal words which lose their normal meaning and acquire their special meanings. For instance, the normal meaning of the word „accumulation‟ is „ذخیسه" but as an „اصل و فسع دز پایان مدت سس مایو گرازی". is meaning special its, term accounting.

Unless the users of sub-technical terms have made themselves acquainted with the general meaning of the words which popularly exist in General English, it is possible that they may be confused in the usage of these words as they take on special meaning in a concrete scientific and technical field. These terms are only clear to them when they have a thorough understanding about the subject.

Acronyms are an increasingly common feature of all non-literary texts .They are words formed from the initial letters of words that create a term or proper name. For example: MA (Maloney Act), IRS (Internal Revenue Service), and UCL (Upper Control Limit).

Above-WordLevel Terms

Technical or scientific terms as well as accounting terms in particular are normally formed by compounding.

Classifier (Noun) +Thing

This group of compounds, Noun + Noun consists of two nouns. The first noun functions as classifier and helps to distinguish the second noun from the other concepts of the same group.

Classifier (Adjective) + Thing

The compounds Adjective + noun consists of an Adjective and a Noun of which Adjective functions as Classifier and the head Noun (thing), combining together.

Classifier (Present Participle) + Thing

In this group of compounds,V-ing + Noun, V-ing functions as classifier or Adjective. Classifier (Past Participle) +Thing

In this group of compounds, similar to the group of compound in last part, V-ed functions as classifier as Adjective.

Thing + Qualifier

This group of compound combines Noun + preposition + Noun.

This can help us realize the similarities and differences between the compound terms in the form of nominal group proposed by Halliday (1985) in terms of the position of the elements, the semantic and grammatical aspects between English and Persian.

The appropriate translation strategies used in the present study were ones proposed by Newmark (1988).They include recognized translation, loan, rank-shift, transpositions, translation by omission, and translation by paraphrase. In this study, these translation procedures were examined in the light of the Newark‟s translation theory. As this study was carried out to find about Persian translation of English accounting terms, quantitative approach was used. To do this, accounting terms at word and above-wordlevel were selected. The contrastive analysis approach was employed to find the differences and similarities in structures and word formation patterns in English and Persian. As already mentioned, the study was conducted within quantitative frame work. For this reason, the following steps were taken in obtaining and analyzing the data: in this study from 16000 terms and all entries in Mir dictionary, the selection

was made randomly and 3876 terms were selected, about 30% of the terms, which seems to be representative of the whole terms. After identifying the categories, their type and number were determined.

Findings

The terms were read analytically and according to experiential structure of the nominal group proposed by Halliday (1985) and the Newmark‟s (1988) models, some categories were identified and presented. As mentioned above, there are technical terms which belong to two categories, but there are some ambiguous concepts that were not easily identifiable. For this reason, a comparative study was done first. Then, the frequency of each category was calculated. At last, the highest frequency was tabulated. International Journal of Foreign Language Teaching & Research – Vol. 1 – Issue 3 – Spring 2013] The number of occurrences and the percentage of the accounting terms in each category are presented in Tables1 and 2.

Table 1. *Frequency and Percentage of English Word Formation Patterns*

	Mir Dictionary	
English Word Formation Patterns	N	**%**
Adj+noun	1610	41.5%
Noun+noun	1609	41.5%
Subtechnical	385	10%
Neologism	21	0.05%
Acronym	15	0.004%

The results in Table 1 indicate that neologisms, sub-technical and Acronyms were not the most frequently used word formation patterns. The results also indicate that in English, adj+noun and noun+noun have the same percentages, being the most frequently used word formation patterns. In the following table, all Persian terms are classified into related categories.

Table 2. *Frequency and Percentage of Persian Word Formation Patterns*

	Mir Dictionary	
persian Word Formation Patterns	**n**	**%**
اسم+اسم	1055	27%
اسم+صفت	1653	42%
جمله واژه	850	21%
جمله	72	0.1%

The results in Table 2 indicate that in Persian اسم+اسم and صفت+اسمin were the most frequently used word formation patterns. Sub-technicals, Acronyms, Neologisms were shifted to جمله وار ه andجملو in the Persian language. When developers of terms in Persian are confronted with sub-technical terms in English that cannot be easily expressed in one word, they often resort to paraphrasing. Sub-technicals, acronyms, neologisms were shifted to جمله واره and جمله in Persian language and most of the times were translated by paraphrase strategy.

In the present table, the frequency of different kinds of procedures used by translators in translating accounting terms is presented.

Table 3. *Frequency and Percentage of Translation Strategies*

English TranslationStrategies	**Mir Dictionary**	
	n	**%**
Trans position	2137	55%
Paraphrase	1003	25%
Rank-shift	386	10%
Recognized Translation	148	4%
Omission	33	0.08%
loan	30	0.08%

The results in Table 3 indicate that loan and omission strategies, recognized translation, and rank-shift are not the most frequently translation strategies. Transposition and paraphrase are employed effectively in the translation of the investigated compound terms from English into Persian. The extensive use of paraphrase as translation strategy could be ascribed to the translators‟ willing to explain terms in a very clear way to users.

Translation by Transposition

a.Classifier (adjective) + Thing

When translating compound terms of this type from English into Persian there normally seems to be no difficulty in choosing the lexical equivalents as the meanings of the Thing and Classifier are clear. The only thing for the translators to do is to rearrange the lexical items and sequence of English compounds in Persian. Take the compound term qualified acceptance, as an example. Based on the experiential structure of the nominal group proposed by Halliday (1985), acceptance is the Thing which stands in the second position, whereas qualified - specifying the Thing by indicating the quality of the Thing stands in the first position. In Persian, the Thing acceptance is equivalent for بسات and qualified- is equivalent for مشسوط .As a result of the translation process from English into Persian, the content of the compound term qualified acceptance is realized as مشسوط بسات .

b.Classifier (noun) + Thing

When encountering the translation of this type of compounds, the same process happens; that is, the translators have to arrange the equivalent constituents of the compound in the form of nominal group in English in the correspondent syntactic word order style of the nominal group in Persian; that is the second element which is the Thing of the compound term in English becomes the first –the Thing in Persian , the first item- the Classifier which indicates a particular subclass of the Thing; meanwhile, becomes the second constituent in Persian compound term.

It is noticeable that this translation procedure is not very complicated, as the translators only need to identify the divisions between the elements in the group and rearrange these elements in the corresponding logical order in Persian. Therefore, the translators can employ this translation procedure to translate the terms of longer nominal group. This procedure is fairly easy as the translators only need to identify the divisions between the elements in the group and rearrange the positions of lexical items in Persian. This strategy is applied to nominal groups of different types. The change of the lexical items in the group is automatic due to the natural difference between the nominal group in English and in Persian.

Translation by a Rank-Shift

a.Classifier (V-ed) + Thing

When encountering the translation of this type of compounds, the translator‟s attention is first paid to the form of the Classifier which is formed by a derived word from a verb in –participle when it is followed by a Thing. In fact, the derived words from verb in –ed participle of the compounds which play the role of an adjective to characterize the Thing as steeped in steeped costs is equivalent with تسکیب وصفی in Persian. The translators are then to find the lexical equivalent for the lexical items of the compound. The next step for the translator to do is to put these lexical equivalents in a logical order in Persian. The Classifier ending in –participle which indicates the subclass of the Thing in English now becomes the صفت+اسمin Persian; meanwhile, the second constituent – the Thing is put in the first position in Persian and it is translated as هزینه های نیمه متغیر.

When translating these compound terms, there normally seem to be no difficulty in choosing the lexical equivalents as the meaning of the constituents are clear. The only thing for the translators to do is to rearrange these lexical equivalents in a logical order in Persian. Take a compound term limited risk as an example. Based on the experiential structure of the nominal group, risk is the Thing which stands as the first element of the compound and limited; meanwhile, stands as the second and has the function of International Journal of Foreign Language Teaching & Research – Vol. 1 – Issue 3 – Spring 2013] indicating some quality of the Thing. In Persian, risk is equivalent to –the Head, and limited is equivalent toمحدود .As a result, the compound term limited risk is translated as خطر محدود.

b.Thing + qualifier (N + Prep + N)

When translating compound terms of this type from English into Persian the translator‟s biggest task is to identify the grammatical unit of the Qualifier in compound term in the form of nominal group since the prepositional phrase with the function of the Qualifier in the English compound term is paraphrase or omission; i.e. the Qualifier of the investigated compound terms is no longer a constituent of a nominal group but paraphrase or omission. There is no direct equivalent for the Qualifier of this kind in Persian but it corresponds with a clause in Persian. Take the compound term deed of trust as an example. Based on the experiential structure of the nominal group, deed is the Thing which stands as the first element of the compound; of trust, meanwhile, is the Qualifier which stands as the second and has the function of characterizing the Thing. In Persian, deed is equivalent of قسازداد –the Head, and of trust is equivalent of قسضو اوزاق -the Qualifier. As a result, the compound term deed of trust is translated as.

Translation by Omission

In translating terms, having the form of nominal group usually takes „of prepositional phrase‟ as the Qualifier (Noun + of + Noun).When translating compound terms of this type from English into Persian considerable attention should be paid to the structure of the compound term to clarify the Thing and the Qualifier so as to find the appropriate Persian lexical equivalents for the lexical units of the compound, while the second – the Qualifier has the function of characterizing the Thing.

To render these terms into Persian, literal translation is grammatically possible, which does not accord with the natural usage in Persian. Therefore, translators must take into notice the naturalness of the translated terms in Persian. Take a compound term as an example, disposal of goodwill. Based on the semantic relation of the nominal group between the two elements, disposal is the Thing which stands as the first, while of goodwill is the Qualifier which stands as

the second characterizing the Thing. In Persian, the Thing disposal is equivalent of واگرازی -the head and of goodwill is equivalent of سسقفلی- the Qualifier. As a result of the translation process from English into Persian, the content of the compound term disposal of goodwill is realized by the reduced form in Persian as سسقفلی واگرازی .What is noticeable during the translation process of the compound term of this type is the omission of the functional word – the preposition of in the SL to make the term sound more natural and readable in Persian. What is put in focus here is the omission in the form of the compound terms in the TL in order to get the semantic equivalence and the smooth, readable and natural style of the compound terms in Persian.

Translation by Paraphrase

When encountering the translation of this type of compound terms, the analysis of experiential structure of the nominal group and the semantic relationship between the elements are of some uses. Therefore, translators need to specify the class of Thing first in order to unpack the meaning of the semantically complicated functional components of the compound terms. It is essential to classify the compound terms in order to find the grammatical structure of these compounds in the form of nominal group as they affect the choice of the logical order and lexical equivalent in the process of translation.

As is observable from study on the translation of economic terms from English into Vietnamese in the textbook Business Law by HonangThi Bay (2005), two main types of terms in the textbook at-word and above-word-level were presented. Most of the investigated terms belong to compounds in the form of nominal group and most of the terms were translated by transposition strategies which seem to be the most appropriate procedure for dealing with the compound terms. With regard to this study, it is clear that this kind of categorization can be helpful for translating technical terms. According to Hashemi (n.d.), "compounding is an important, basic and applicable word formation patterns in Persian language". It is notable to refer to a statement by Tajvidi (2008) on the process of word formation in Persian language, he believes compounding is a procreative pattern of word formation in Persian language, this means that a International Journal of Foreign Language Teaching & Research – Vol. 1 – Issue 3 – Spring 2013] lot of words in Persian language is made by compounding. According to Booij (2007), in many languages, compounding is the most frequently used way of making new lexemes.

It can be concluded that based on the results of this study and Newmark"s (1988) ideas, transposition and paraphrase are the most favorable strategies in rendering the translation of accounting terms and the most frequently used patterns of word formation in English are adj+noun,noun+noun, but in Persian صفت+اسم .The findings also indicate that the English and the Persian use different word formation strategies for a similar term. For example, the English uses noun+noun while the Persian uses صفت+اسم . The most interesting finding of this study is that there is a divergence in word formation patterns used in the furnishing of equivalents for terms indicated.

Conclusion

The aim of this research was to investigate the Persian translation of English accounting terminology in technical dictionaries. The study was carried out in the light of theoretical issues and on the basis of the translation of materials by professional translators. As a result, it was decided that there are two main types of terms, that is, one-word terms and compound terms. Most of the investigated terms belong to compounds in the form of nominal group. Therefore, these compound terms were sorted out into subgroups with the Thing and modifying elements such as the Epithet indicating some quality of the Thing, Classifier indicating a particular

subclass of the Thing or Qualifier characterizing the Thing. The most frequently used patterns of word formation in English were found to be adj+noun and noun+noun but in Persianصفت+اسم.

Through translation theories, translation of neologisms and translation of non-equivalence, problems occurring during the translation of these groups of terms were identified. Accordingly, appropriate translation strategies employed by professional translators were identified to deal with such problems and to come up with the finding that the proper criteria of terminology are transposition and paraphrase.

In a word, this study on the translation of accounting terms was carried out on the basis of grammatical structure and semantic relationship of the elements of the terms investigated. The aim was to indicate essential work which should be done in the process of translation of accounting terms in order to have a translation which sounds original in a natural form in the TL.

In the process of teaching and learning ESP, terminology though making up a small percentage of words in the texts, causes much difficulty for learners. Therefore, a perfect translation of the terms based on thorough understanding of their grammatical and semantic features makes it easier for learners. For ESP learners, understanding the new vocabulary is of great importance since this helps them understand the whole text thoroughly. There are many ways to present new vocabulary; namely, giving concise definition, detailed description, examples, synonyms, antonyms and translation. However, in accounting texts a detailed description including translation is the best and fastest way to get the meaning of the new vocabulary. The fact is that many of the accounting terminology are compounds. Nevertheless, it is essential to provide an analysis of the grammatical features and semantic relationship of the constituents since these features might affect the meaning of the compound. This research has been carried out with the hope to be of some use for ESP teachers and learners.

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