Translation Profession in Yemen in Light of Recent Technological Developments: Challenges and Responses to the Use of CAT Tools by Translators

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Abstract

This paper aims to investigate the challenges of using modern translation technology by translators in Yemen and their responses to these recent developments. It particularly explores the challenges translators face when adopting CAT tools, the factors determining their adoption, and their impact on translators' performance. To achieve these objectives, the study followed a mixed quantitative and qualitative method of inquiry. A questionnaire was administered to a randomly selected sample of 66 translators in Sana'a city. The collected data was processed through the SPSS program and then analyzed. The results revealed that (87.7%) of the sample showed some awareness of CAT tools; (54.4%) of the sample used the programs, and their attitudes were largely positive, while 45.6% of the participants did not use CAT tools. The factors that motivate translators to use CAT tools include facilitating their work, improving their performance, increasing productivity, and enhancing the quality of translation products. The study concludes that translators' responses to the use of CAT tools in their work were largely positive, while those translators who use CAT tools encounter various challenges. The study also concludes with a set of recommendations for translators, agencies, and universities, such as integrating modern translation technology in the curricula of translation programs and conducting workshops, training courses, and conferences on CAT Tools to increase awareness among translators and help them improve their performance and the quality of their translations.

Keywords:

CAT Tools, Translation Memory, Machine-Assisted Translation, Factors, Challenges

مهنة الترجمة في اليمن في ضوء التطورات التكنولوجية الحديثة: التحديات التي تواجه المترجمين في استخدام برامج الترجمة بمساعدة الحاسوب ووجهة نظرهم نحوها

بثينة ذي يزن نعمان باحثة - قسم اللغات والترجمة الأكاديمية اليمنية أم د إبراهيم ناجي تاج الدين أستاذ النظرية النقدية والترجمة المشارك كلية اللغات - جامعة صنعاء

الماخ ص

يهدف البحث إلى دراسة تحديات استخدام أدوات وبرامج تكنولوجيا الترجمة الحديثة من قبل المترجمين في اليمن ووجهة نظرهم نحو هذه التطورات الحديثة في مجال الترجمة. ويسعى البحث على وجه الخصوص إلى دراسة التحديات التي تواجه المترجمين عند استخدام أدوات الترجمة بمساعدة الحاسوب (CAT Tools)، والعوامل التي تحدد تبنى هذه الأدوات وتأثيرها على أداء المترجمين. ولتحقيق هذه الأهداف، اتبعت الدراسة المنهجية المختلطة في التحليل الكمى والنوعي لعينة الدراسة. وشملت عينة الدراسة 66 مترجماً ومترجمة، تم اختيارهم عشوائياً من مجتمع الدراسة الذي يشمل جميع المترجمين في مدينة صنعاء، وتمت معالجة البيانات التي تم جمعها من خلال الأستبيان في برنامج التحليل الإحصائي (SPSS) ومن ثم تحليلها. وأظهرت النتائج أن (87.7%) من العينة أبدوا بعض الوعي بأدوات الترجمة بمساعدة الحاسوب؛ و(54.4%) من العينة يستخدمون هذه البرامج، وكانت وجهات نظرهم إيجابية إلى حد كبير، في حين أن 45.6% من المشاركين لا يستخدمون أدوات الترجمة بمساعدة الحاسوب. كما أظهرت النتائج العوامل التي تحفز المترجمين على استخدام أدوات الترجمة بمساعدة الحاسوب التي تشمل تسهيل عملهم وتحسين أدائهم وزيادة الإنتاجية وتعزيز جودة منتجات الترجمة. وتخلص الدراسة إلى أن استجابات المترجمين لاستخدام أدوات الترجمة بمساعدة الحاسوب في عملهم كانت إيجابية إلى حد كبير، مع ان المترجمون الذين يستخدمون أدوات الترجمة بمساعدة الحاسوب يواجهون تحديات مختلفة. وأختتمت الدراسة بمجموعة من التوصيات للمترجمين والجهات والجامعات أهمها ما يتعلق بدمج تكنولوجيا الترجمة الحديثة في مناهج برامج الترجمة وعقد ورش عمل ودورات تدريبية وتنظيم مؤتمرات حول أدوات الترجمة بمساعدة الحاسوب لزيادة الوعي لدى المترجمين ومساعدتهم على تحسين أدائهم وجودة ترجماتهم.

1- Introduction

Translation is a process through which the meaning of a source-language text is transferred by means of an equivalent target-language text. It is essentially an act of communication that enables people to understand each other and bridge the gap

between different cultures in today's global village. However, in this changing world of globalization, digitalization, and knowledge explosion, translation plays a vital role in transferring knowledge and sciences across the world. Hence, the need for translation and intercultural communication has increased dramatically. Translation can be performed by a human translator, machine translation (MT), or a combination of both.

Translation has been developed throughout time, based on the needs of society, culture, and business. In this age, which is marked by rapid development in technology, the translation process has been influenced by the recent trends in the field of science and technology, which engage machines in the translation process. In the mid-20th century, scholars started to think of integrating technology and translation through specific translation programs. The first program based on MT was developed in 1954 by IBM (International Business Machines). This program was not taken seriously because it was only able to translate single sentences. However, due to the rapid progress of technology, nowadays programs are designed to have the capacity to translate a whole text with more accuracy. This kind of program with its components – Translation Memory (TM), terminology database, glossaries, and additional similar functions – provides translators with big advantages. The new technology in translation has facilitated the job of human translators. Bowker (2002) indicates the importance of technology in the translation business, citing Samuelsson-Brown (1996):

Technology is developing at a frightening pace and the demands made on the translator do not show any signs of abating. In fact, the translator is becoming more and more dependent on information technology and, if the translator does not adapt to change, he or she may become uncompetitive. (p. 3)

Translation technology has become a necessity due to the thriving demand for translation and the increasing number of texts that need to be translated in the global market. Sprung (2000) points out that "in under 10 years, the translation and software-localization businesses have evolved from a cottage industry into the global business imperative" (p. vii). Therefore, with the prosperity of the translation market, there is an increasing demand by clients for faster, better, and cheaper translation services. Schäffner (2000) states that "translations need to be done ever more quickly, much more efficiently, and at a high quality" (p. 7). Thus, the field of language studies, and particularly the sector of translation, has had to develop production mechanisms and software tools to reduce transaction costs, work faster, and provide increasingly higher quality (Shadbolt, 2003; Mounassar, 2020; Al-Lateeni, 2022; Mounassar, 2018).

In response to the growing demands of the business community for translation services and the advancement of technology, Computer-Assisted Translation tools (CAT) – the main component of which is based on TM technology – have been developed to enable translators to produce a high-quality translation in a relatively short amount of time. CAT tools, such as Trados, MemoQ, OmegaT, etc., are designed to help human translators perform their work more efficiently. However, the human translator remains primarily responsible for the quality of the final output of the translation process. In MT, the computer can translate the text but may require minimal human intervention, such as pre- or post-editing. As such, MT systems pose a career threat to translators, while CAT tools support the quality of their work. Bowker & Fisher (2010) illustrate that after researchers recognized that fully automatic MT was a tremendous challenge, they gradually turned their attention to CAT tools in the 1960s. They created term banks, which used computers to share large amounts of structured information. The advances in computational linguistics in the 1970s and 1980s spurred researchers to develop modern CAT tools, which rely on computers not just for storing information but also for actively searching and retrieving it. CAT tools were not widely commercially available until the mid-1990s. Bowker & Fisher (2010) also clarify that the rapid development of technology was the main reason for enabling CAT tools to be accessible, popular, and even necessary to assist translators in addressing the huge number of texts quickly and efficiently. Therefore, this study deals precisely with this topic by examining the use of recent translation technology by translators in Yemen, their awareness of CAT tools, and how such recent developments in this field have influenced their performance.

Problem Statement

To keep pace with the recent scientific and technological developments in today's world of globalization and digitalization, there is a genuine need to transfer knowledge into our culture by translating many works, including books, research works, journals, media, etc. Hence, translators could be under pressure to translate large volumes of materials efficiently and quickly. Accordingly, CAT tools are designed to assist translators in accomplishing their tasks with less time and effort. As these tools represent a new gift of modern science and technology in this age of digitalization, translators need to cope with and make optimal use of these new developments in their professional careers. However, it is remarkable that CAT tools are not widely known or commonly used by all translators in Yemen. Therefore, this

study attempts to shed some light on this technology and its use in facilitating translation works in Yemen.

Since CAT tools are a new translation technology in Yemen, some translators may face some challenges in using these recently developed tools due to certain factors related to their awareness of these tools and their accessibility to them. On the other hand, translators may feel that the emergence and spread of these modern tools would represent a threat to human professional translators. Therefore, this study intends to show the extent to which translators in Yemen are aware of the use of CAT tools in translating various types of documents. It also intends to examine the translators' attitudes toward CAT tools, the factors that determine the adoption of these tools, and their impact on the translators' performance. Hence, this study deals with a new topic that is still unexplored by researchers, particularly within the context of the Yemeni translation community.

Objectives of the Study

This study aims to:

- Assess the awareness of translators in Yemen of modern translation technology with a special focus on CAT tools and investigate their attitudes towards the use of these tools in translation.
- Identify the factors that determine the adoption of CAT tools by translators in Yemen and examine the impact of the use of CAT tools on the quality of the translators' performance.
- Explore the challenges that translators in Yemen encounter when adopting CAT tools in their translation work.

2- Literature Review

Translators have traditionally produced their translation works using manual dictionaries, paper, and pen. However, due to the rapid developments in technology, computers are used to facilitate the job of translators. The development of computer-based reference works on electronic media, as well as the assumption of the Internet and electronic communication, brings more resources for translators to use in order to increase their productivity and enhance the quality of their work (Granell-Zafra, 2006). The increasing demand for translations has led many to admit that the use of technology is inevitable to improve translators' performance, increase their productivity, and enhance translation quality. It would enable them to produce their translations accurately, efficiently, and effectively in shorter periods (Lange & Bennett, 2000).

Modern Technology and Translation

The gifts of the recent revolution in science and technology during this age of globalization have facilitated human life in many aspects. Lawlor (2007) refers to technology as the key component in the process of globalization (p. 1). Biau-Gil & Pym (2006, p. 16) admit that "On countless levels, the advantages presented by technology are so great that they cannot be refused." Alotaibi (2014) also asserts that over the past decades, technology has been playing a growingly important role in the field of translation. The impact of technology has reached a remarkable level that requires an accurate evaluation, as it is one of the major aspects influencing translators' competence significantly. According to Galal (1999), as cited in Alotaibi (2014), the profession of translation in the Arab world appears to disregard this fact, "lagging behind the rapid technological development in today's information world" (p. 66). Alotaibi (2014) further argues that the reason behind Arab translators' mistrust of technology could be related to the past investigations in MT, which failed to produce fully automated and high-quality outputs. As a consequence, this enhances the idea that there is no role for technology in the translation process. The translators might have thought that technology poses a threat to their professional careers.

In fact, technological progress has made new changes and transformations in the translation process. As a result, CAT tools and MT have emerged recently as the major technological advances that have influenced translation. In this regard, Doherty (2016, p. 1) points out that "These technologies have increased productivity and quality in translation, supported international communication, and demonstrated the growing need for innovative technological solutions to the age-old problem of the language barrier."

CAT Tools

The 21st century is the era of technology, in which almost everything is based on technology to facilitate life. Translators, as part of this world, also need technology to do their work easily, faster, and accurately, without adversely affecting the profession of translation. Therefore, CAT tools have become available in the translation market.

Mahfouz (2018) points out that globalization and the rapid growth of trade worldwide have resulted in an increased demand for translation services. With more volume of texts to be translated on time, CAT tools have become indispensable in most organizations. Palacz (2003) also confirms that "Computer-Assisted Translation software comes into play and offers the opportunity to meet these

demands. Powerful computer technology can enhance the uniquely human abilities of translators by coupling them with raw computing power" (p. 4).

CAT tools are software programs used to assist translators in performing their tasks easily, consistently, and swiftly. Bowker and Fisher (2010) define CAT as "the use of computer software to assist a human translator in the translation process" (p. 60). Pym (2013) and Chunzhi (2014) assert that the advent of CAT tools has facilitated the translators' work, sped up the translation process, and increased productivity. Likewise, Anica (2014) agrees that "CAT tools are very helpful and valuable for both translators and translators-to-be, as they increase the productivity of the translation process" (p. 25).

Granell-Zafra (2006, p. 19) presents a comprehensive definition of CAT tools as "a set of computer applications designed to assist translators in producing fast and consistent translations." He further illustrates how these tools "store source and target language pairs of text segments found in previous translations and retrieve this information during the production of new translations. CAT tools use both translation memory and terminology management functions, which provide translators with exact equivalences of the text in the source language or equivalences containing partly similar text.

Garcia (2014) also defines CAT tools as:

Computer-aided Translation (CAT) systems are software applications created with the specific purpose of facilitating the speed and consistency of human translators, thus reducing the overall costs of translation projects while maintaining the earnings of the contracted translators and an acceptable level of quality. (p. 68)

Esselink (2003) indicates that "CAT tools can be classified as follows: Translation Memory (TM) tools; Terminology tools; Software Localization tools" (p. 79). Anica (2014) states that all CAT tools have merged a collection of specific technologies. There are many tools, but the most important ones are those that bring changes and are more significant in the translation practice such as TM, terminology management systems, alignment of the source text and the target text, and localization tools.

Feder (2001), as cited in Palacz (2003), points out that "Computer Assisted/Aided Translation is a very broad and general term used to describe various machine, mainly computer, techniques employed to (fully or partially) automate or assist human translation" (p. 49).

Bowker (2002) explains the difference between Human-Assisted Machine Translation (HAMT), which is often shortened simply to MT, and Machine-Assisted/Aided Translation (MAT). Nowadays, it is usually referred to as CAT. She briefly and accurately describes the features of both MT and CAT:

The major distinction between MT and CAT lies with who is primarily responsible for the actual task of translation. In MT, the computer translates the text, though the machine output may later be edited by a human translator. In CAT, human translators are responsible for doing the translation, but they may make use of a variety of computerized tools to help them complete this task and increase their productivity. Therefore, whereas MT systems try to replace translators, CAT tools support translators by helping them to work more efficiently. (Bowker, 2002, p. 25)

Similarly, Somers (2003) clarifies the distinction between MT and CAT tools:

A finer distinction is made between Machine-Aided Human Translation (MAHT) and Human-Aided Machine Translation (HAMT), implying a distinction between a basically human activity involving computer-based tools on the one hand, and a computer-driven activity requiring the assistance of a human operator. (p. 13)

In fact, CAT tools are different from Machine Translation and Artificial Intelligence translation applications; however, many translators think that CAT tools fall under the MT or AI applications. Some may consider, for example, Google Translate as one of the CAT tools. As a result, several translators do not trust CAT tools, and some of them think that MT is a threat to the human translators' profession. However, it is generally believed that the machine is created to assist humans, and without human intervention, technology will have no effective use.

Disadvantages of Using CAT Tools

Despite the many advantages of using CAT tools in translating different texts and documents, they may not be useful to all translators. It is undesirable to use these tools in translating literary texts where the translator needs to be creative and consider the artistic nature of the text and stylistic effect. Leblanc (2013) reports some shortcomings of using CAT tools in translating literary texts, such as hindering creativity among translators and propagating errors through translation recycling. Besides, literary translators will find the translation memory created by CAT tools less useful than when translating technical texts, in which there are many more relevant matches.

The high cost of CAT tools makes them less accessible to many translators, as it may be beyond their capacity to buy them. Elimam (2007) asserts that despite all the benefits of CAT tools, they still have some cons. They are very costly, and working with a CAT tool may be rather time-consuming at the beginning, since the translator has to invest some time in training, referring to manuals, or seeking technical support. However, translators can opt for the free version of the software. They are useful, even if they do not have the same features as the paid ones.

Segmentation is considered an advantage of CAT tools; however, it may also be seen as a drawback. Leblanc (2013) argues that "the main drawback of TMs is that they force translators to use a sentence-by-sentence approach, thereby requiring them to work with segments (or translation units) instead of the whole text" (p. 7).

Can CAT Tools Be a Threat to Human Translators?

According to Merkel (1996), "some translators show some fear that translation work will become more tedious and boring and that some of the creative aspects of the job will disappear with the increasing use of translation memory tools" (p. 140). In a study conducted by Bédard (2000), there is a concern that translators may lose motivation when working with a TM because they fear becoming "translators of sentences" rather than "translators of texts".

According to Bowker (2002), the idea that the machine has taken the place of the human translator is no more a source of threat to translators; it has been changed now to be accepted as assisting human translators and facilitating their jobs. She points out that "Focus has shifted away from the notion that machines should be designed to replace human translators and is now firmly concentrated on the ways in which machines can support human translators" (p. 25). Biau-Gil and Pym (2006) explain why MT cannot take the place of translators:

MT systems are not replacing human mediators. This is first because the prime use of MT is only to locate the texts and fragments requiring human translation. Second, if MT output is to be used professionally, it requires human revision. Third, the future development of quality MT output requires serious attention to controlling the writing of the input, which is an area that some translators may want to move into. Indeed, the better MT systems work (and current statistical models seem able to offer a better future), the more texts will be processed, and the more work will be created for human translators. (P. 17)

Ulitkin (2011) also states that "Despite their efficiency and outlooks, the translation software and electronic means cannot replace the human translator and guarantee high-quality translations" (p. 1).

Previous Studies

Several studies have investigated the use of MT, particularly CAT tools, and their impact on the productivity of translators and the efficiency of translations. A related study in the field of CAT tools was conducted by Granell-Zafra (2006), which investigated the use of CAT tools by freelance translators in the UK with a special focus on the translators' perceptions of these tools. The study intended to fill the gap in the existing research about the use, perceptions, and impacts of CAT tools on freelance translators' performance. The study was made based on previous research conducted about ICT (Information and Communication Technologies) adoption in small and medium-sized companies, with a study sample of 391 freelance translators. The study was conducted in two phases: in the first phase, a mail survey was carried out on a sample of freelance translators to determine the levels of use of CAT tools and the perceptions of these tools among freelance translators. The findings of this phase revealed a low level of use of CAT tools. The results also showed that almost half of the translators in the sample were not familiar with CAT tools. In the second phase, an online survey of adopters and non-adopters of CAT tools was conducted to investigate the motivations behind adopting these tools, as well as the impact of CAT tools adoption. The findings of this phase showed that a sample of 19 adopters of CAT tools was employed to reveal the motives for the adoption of these tools. They also showed that the main motivators for CAT tools adoption were the features of the tools, such as translating a large volume of documents with higher quality in a short time. In addition, a sample of 34 nonadopters of CAT tools was employed to determine the factors preventing translators from using these tools. The study showed that the main obstacle to CAT tools adoption is the difficulty of learning to use these tools. It also indicated that the freelance translators' perceptions of CAT tools and their impact on their performance were largely positive. Generally, the study concluded that the impact of CAT tools on translators is largely positive as they increase productivity and ensure the quality of the translation performance.

Sikora (2012) investigated the adoption of CAT tools among Polish translators. The findings of the survey, which was undertaken in 2011, showed that despite the widespread use of CAT tools and the translators' awareness of the advantages of

using these tools, there are still several professionals who are unfamiliar with CAT tools or skeptical about this technology.

Alotaibi (2014) investigated the extent of students' awareness of CAT Tools and their expectations and attitudes toward using such tools in Saudi Arabia. The study sample included 103 female translation students enrolled in a course on Computer Applications in Translation at the College of Languages & Translation, King Saud University, Riyadh. To achieve the study objectives, a questionnaire was administered at the beginning and the end of the semester, in addition to semi-structured interviews. A classroom observation was also used to collect data to enhance the validity of the study. The results of the study showed a significant relationship between the increase in students' knowledge of CAT tools by the end of the course and the change in their attitudes towards the use of these tools in translation. The students' attitudes became much less biased and, in general, fairly positive.

Christensen and Schjoldager (2016) conducted a study based on a questionnaire survey of the uptake and use of CAT tools by Translation Service Providers (TSPs) in Denmark since 2013. The study aimed to show the extent to which these tools have influenced the Danish translation industry. The results of the survey revealed that 22 out of 25 (88%) of the respondents used these tools. Most respondents indicated that CAT tools changed the translation industry. They confirmed that modern technology facilitates translators' work and improves their productivity and consistency, but sometimes it results in lower prices and decreased output quality.

On the other hand, Yao (2017) focused on the adoption of CAT tools in translation teaching in China. He conducted a survey to examine the teachers' awareness of CAT technology and to explore the difficulties of its adoption in translation teaching. The sample size included 48 English translation teachers distributed in different areas of China to make sure of the sample's representativeness. The results of the survey revealed that a moderate number of the respondents were not very familiar with CAT technology. A proportion of 68.7% of the respondents were not very familiar with CAT tools, 16.67% of the respondents believed they were familiar with the tools, 12.5% of the respondents were very familiar with these tools, and 2.08% were unfamiliar with CAT.

Çetiner (2018) investigated translation students' attitudes towards CAT tools at Kırıkkale University, Turkey. The study used pre-and post-test questionnaires. The results showed that there are statistically significant differences between scores of

the pre-and post-test, which support the view that the students have positive attitudes after they learned about the advantages of using CAT tools.

Mahfouz (2018) examined users' attitudes to CAT tools with specific reference to their perceived benefits, ease of use, and compatibility. The study was conducted among 114 translation students and professional translators in Egypt. It followed a mixed method, a survey, and a semi-structured interview. The findings confirmed an overall favorable attitude among the participants toward CAT tools, despite some mixed and contradicting opinions on some aspects. The study investigated the relationship between user attitudes to CAT tools and various factors, such as years of experience, computer skills, and the type of texts translated. The findings also confirmed that users with better computer skills have more favorable attitudes towards CAT tools, unlike those with more experience in translation.

The current study goes in line with the studies mentioned above in that it investigated the adoption of CAT tools and the translators' attitudes towards them. Yet, it is different as it focuses on translators in the Yemeni context with special reference to their perceptions and attitudes to CAT tools and the impact of these tools on their performance.

3- Methodology

This study followed a mixed quantitative and qualitative method of inquiry. Inspired by Granell-Zafra's (2006) study, the present study focused on investigating the awareness of the use of CAT tools among all translators in Yemen, the motives for the adoption of such modern technology, and the challenges that translators encounter when adopting these tools.

Study Population and Sample

The population of the study was the translators in Yemen, specifically in Sana'a city. The sample included 66 translators selected randomly from all levels (professors/teachers, freelancers, in-house translators, and PG translation students) of different ages, and both males and females. The number of the study sample was limited to 66 participants based on the limited number of accredited translators in Sana'a city, and in light of the data collected from the competent authority in the Ministry of Culture in Sana'a.

Data Collection Instruments

A questionnaire was developed to collect the required data from the study sample. The questionnaire included close-ended questions for quantitative analysis and openended questions for qualitative analysis. It was validated by a panel of experts and administered during the academic year 2019-2020. It was presented in two versions:

an online and a hard copy questionnaire. Both types have the same questions and style. A link to the online questionnaire was sent to WhatsApp groups that are dedicated to translators. It was filled by only 20 respondents. Then, the online questionnaire's link was sent to 34 translators personally, to which only 27 of them responded. The hard copy questionnaire was distributed to 19 translators: 9 MA students at Yemen Academy for Graduate Studies, and 10 professional translators. All the hard-copy questionnaires were filled out. Finally, a total of 66 copies of the questionnaire were received. However, 9 out of 66 questionnaires were excluded because 4 responses were sent back blank, and that was probably due to the incapability of the respondents to use technology appropriately. The other 5 responses were excluded because 2 of the respondents were out of Yemen, and 3 of them were out of Sana'a city. Thus, only 57 usable responses were received.

4- Data Analysis

To investigate the extent of the translators' awareness of CAT tools and their attitudes towards them, the questionnaire was administered to the sample. Then, the collected data were statistically processed through the SPSS program. Demographic details such as gender, age, years of experience, etc., are excluded from the discussion as these data have no significant impact on the findings of the study. The discussion of results will include the following questionnaire sections:

A. The Translators' Awareness of CAT Tools

Tables 1, 2, and 3 below illustrate the extent to which translators in Yemen know about CAT tools. As for the question, "Do you know what is meant by Computer-Assisted Translation tools (CAT)?" the respondents' answers are shown in Table 1. The majority showed an awareness of the concept of CAT tools, with (50) 87.7%, while only (7) 12.3% of the respondents did not know about them.

Table 1: Translator's Awareness of the Nature of CAT Tools

| Response | Frequency | Percentage |
|----------|-----------|------------|
| NO | 7 | 12.3% |
| Yes | 50 | 87.7% |
| Total | 57 | 100.0% |

Table 2 displays the translators' responses to the question, "Do you know any Computer-Assisted Translation Tools (CAT)?" The results showed that (42) 73.7% of translators were familiar with the tools, while the remaining (15) 26.3% showed no familiarity with types of CAT tools.

Table 2: Translators' Awareness of CAT Tools Types

| Response | Frequency | Percentage |
|----------|-----------|------------|
| No | 15 | 26.3% |
| Yes | 42 | 73.7% |

| Total | 57 | 100.0% |
|-------|----|--------|

The respondents who chose "yes" to the previous question, "Do you know any Computer-Assisted Translation Tools (CAT)?" had to answer the question, "If Yes, how did you get to know about CAT tools for the first time?" as shown in Table 3. The results showed that (15) 26.3% of the respondents chose the option "I taught myself"; (3) 5.3% of respondents answered "On the websites of a translation association"; (6) 10.5% selected the answer "Heard from a friend"; (4) 7.0% chose "In translation skill training class provided by company/school"; while only (2) 3.5% selected the option "On the social media"; (15) 26.3% answered that it was a "Part of the curriculum of translation classes at college"; and (2) 3.6% chose the choice "Other". Therefore, a considerable proportion of the respondents got to know about CAT tools through self-learning or regular classes within the curriculum at college.

Table 3: Translators' Source of Knowledge about CAT Tools

| | | NO | Yes | Total |
|--|-----------|------|------|-------|
| I taught myself | Frequency | 42 | 15 | 57 |
| | Percent | 73.7 | 26.3 | 100.0 |
| | | | | |
| | | No | Yes | Total |
| On the websites of a translation association | Frequency | 54 | 3 | 57 |
| | Percent | 94.7 | 5.3 | 100.0 |
| | | | | |
| | | No | Yes | Total |
| Heard from a friend | Frequency | 51 | 6 | 57 |
| | Percent | 89.5 | 10.5 | 100.0 |
| | | | | |
| In a translation skill training class provided by the | | No | Yes | Total |
| company/school | Frequency | 53 | 4 | 57 |
| company/senoor | Percent | 93.0 | 7.0 | 100.0 |
| | | | | |
| | | No | Yes | Total |
| On social media | Frequency | 55 | 2 | 57 |
| | Percent | 96.5 | 3.5 | 100.0 |
| | | | | |
| | | No | Yes | Total |
| Part of the curriculum of translation classes at the college | Frequency | 42 | 15 | 57 |
| Conege | Percent | 73.7 | 26.3 | 100.0 |
| | | | | |
| | | NO | Yes | Total |
| Other | Frequency | 55 | 2 | 57 |
| | Percent | 96.5 | 3.6 | 100.0 |

Then, the respondents were asked a question to measure how often they use CAT tools while doing their translation tasks. The question reads, "Do you use Computer-Assisted-Translation Tools (CAT)?" Table 4 below shows the number of respondents who use CAT tools and also those who only knew about CAT tools but did not practically use them in translation. On the other hand, Table 5 shows the reasons for not using CAT tools, in which the respondents were able to choose more than one choice.

As shown in Table 4, more than half of the respondents (31) 54.4% use CAT tools and (26) 45.6% of the respondents do not use them.

Table 4: The Number of Translators Who Use CAT Tools

| Response | Frequency | Percentage |
|----------|-----------|------------|
| No | 26 | 45.6% |
| Yes | 31 | 54.4% |
| Total | 57 | 100% |

Regarding the question "Why do not you use CAT tools?" Table 5 shows that (2) 3.5% of the respondents answered, "Source texts are given to me in a hard copy"; (7) 12.3% selected the answer "High price of CAT tools"; (3) 5.3% found that CAT tools are "Difficult to learn"; (2) 3.5% answered "Not easy to use"; (5) 8.8% chose "I have never heard about them"; (4) 7.0% said that they do not trust them. The highest proportion of the respondents, (8)14.0%, answered, "I cannot afford them"; (3) 5.3% chose "I do not have basic skills and experience in using computers and the internet"; and the remaining (4) 7.0% of the respondents chose "Other". Some of them further specified their choice of "Other" by stating that "CAT tools waste time in which they must work on one task/type of translation," and one of them mentioned that he "had no time to learn how to use CAT tools."

Table 5: Reasons behind Not Using CAT Tools

| | | No | Yes | Total |
|---|-----------|------|------|-------|
| Source Texts are given to me in a hard copy | Frequency | 55 | 2 | 57 |
| | Percent | 96.5 | 3.5 | 100.0 |
| | | | | |
| | | No | Yes | Total |
| The high price of CAT Tools | Frequency | 50 | 7 | 57 |
| | Percent | 87.7 | 12.3 | 100.0 |
| | | | | |
| | | No | Yes | Total |
| Difficult to learn | Frequency | 54 | 3 | 57 |
| | Percent | 94.7 | 5.3 | 100.0 |
| | | | | |
| | | No | Yes | Total |
| Not easy to use | Frequency | 55 | 2 | 57 |
| | Percent | 96.5 | 3.5 | 100.0 |

| | | No | Yes | Total |
|--|-----------|------|------|-------|
| I have never heard about them | Frequency | 52 | 5 | 57 |
| | Percent | 91.2 | 8.8 | 100.0 |
| | | | | |
| | | No | Yes | Total |
| I do not trust them | Frequency | 53 | 4 | 57 |
| | Percent | 93.0 | 7.0 | 100.0 |
| | | | | |
| | | No | Yes | Total |
| I cannot afford them | Frequency | 49 | 8 | 57 |
| | Percent | 86.0 | 14.0 | 100.0 |
| | | | | |
| | | No | Yes | Total |
| I do not have basic skills and experience in using | Frequency | 54 | 3 | 57 |
| computers and the internet | Percent | 94.7 | 5.3 | 100.0 |
| | | | | |
| Other (they waste time and you must work on one task/ | | No | Yes | Total |
| type of translation; waste time; have no time to learn | Frequency | 53 | 4 | 57 |
| how to use them). | Percent | 93.0 | 7.0 | 100.0 |

As shown in Table 6 below, the question "Are you planning to use CAT tools in the future?" was posed only to the respondents who do not use CAT tools. A proportion of (22) 38.6% of the respondents answered with 'Yes', while (4) 7.0% answered with 'No'.

Table 6: Intended Future Plans of Translators Who Do Not Use CAT Tools

| Response | Frequency | Percentage |
|---------------------------------------|-----------|------------|
| (Respondents already using CAT tools) | 31 | 54.4% |
| No | 4 | 7.0% |
| Yes | 22 | 38.6% |
| Total | 57 | 100.0% |

Then, Table 7 further clarifies why the respondents who do not use CAT tools answered with 'Yes' or 'No' to the previous question, "Are you planning to use CAT tools in the future?" by immediately following it with the open question, "If 'Yes', why? Or if 'No', why not?" Table 7 shows that a proportion of 19 (34.2%) of the respondents mentioned their reasons, such as; "CAT tools make their job easier", "to improve the quality of their translation", "to save time" and "other reasons," Moreover, Table 7 shows that (4) 7.0% of the respondents do not plan to use CAT tools in the future for different reasons; (2) 3.6% of the respondents gave their reasons as "they do not trust them"; only (1) 1.8% respondent reported that s/he

prefers to translate by herself/himself so that s/he can learn new things every day; and (5) 9% of them did not mention any reasons.

Table 7: Reasons for (Using/Not Using) CAT Tools in the Future.

| Responses | Frequency | Percent |
|---|-----------|---------|
| (Respondents who are already using the tools are not included in this question) | 31 | 54.4 |
| Because I think, actually, it will support me in the translation field. | 1 | 1.8 |
| Because I want to be perfect in translation. | 1 | 1.8 |
| Because they facilitate the job and save time | 1 | 1.8 |
| I don't trust them | 1 | 1.8 |
| I may use them when I have the ability to use them and can afford their prices | 1 | 1.8 |
| I'm used to doing the translation myself because this way I can learn many new things every day. | 1 | 1.8 |
| It helps a lot and saves time. | 1 | 1.8 |
| It is considered to be important | 1 | 1.8 |
| It might help to have an easy and fast translation | 1 | 1.8 |
| It saves time. | 1 | 1.8 |
| It will help me. It is a great tool that helps in saving what you have translated, it saves time, | 1 | 1.8 |
| no comment | 5 | 8.8 |
| not reliable | 1 | 1.8 |
| They are useful | 1 | 1.8 |
| They make my job easier; they also save time and energy | 1 | 1.8 |
| To help me with multi-field texts | 1 | 1.8 |
| to improve my translation | 1 | 1.8 |
| To improve my translation | 1 | 1.8 |
| to make my job easier | 1 | 1.8 |
| To save time. | 1 | 1.8 |
| To try them | 1 | 1.8 |
| Yes, because translation would be easier for me. | 1 | 1.8 |
| Total | 57 | 100.0 |

As shown in Tabe No. 8 and Table No. 9, the following two questions were devoted only to translators who use CAT tools (31 respondents only). Table 8 shows the respondents' purposes for using CAT tools by answering the question "For what purpose do you use CAT tools?" to which they could respond by choosing more than one option from a list. The results showed that (4) 12.9% of the respondents use CAT tools for websites; (8) 25.81% use them for paperwork; (6) 19.4% use them for reports; (4) 12.9% for emails; the highest number of respondents (11) 35.48% among those who use CAT tools use them for official documents; and other

respondents (2) 6.45% chose the option "Other". More specifically, they mentioned that they use CAT tools for the purpose of teaching at the university.

Table 8: Purposes of the Respondents' Use of CAT Tools

| | | No | Yes | Total |
|------------------------------------|-----------|--------|--------|-------|
| Websites | Frequency | 27 | 4 | 31 |
| | Percent | 87.1% | 12.9% | 100.0 |
| | | | | |
| | | No | Yes | Total |
| Paperwork | Frequency | 23 | 8 | 31 |
| | Percent | 74.19% | 25.81% | 100.0 |
| | | | | |
| | | No | Yes | Total |
| Reports | Frequency | 25 | 6 | 31 |
| _ | Percent | 80.6% | 19.4% | 100.0 |
| | | | | |
| | | No | Yes | Total |
| E-mails | Frequency | 27 | 4 | 31 |
| | Percent | 87.1% | 12.9% | 100.0 |
| | | | | |
| | | No | Yes | Total |
| Official documents | Frequency | 20 | 11 | 31 |
| | Percent | 64.52% | 35.48% | 100.0 |
| | | | | |
| | | NO | Yes | Total |
| Other (teaching in the university) | Frequency | 29 | 2 | 31 |
| | Percent | 93.55% | 6.45% | 100.0 |

Table 9 represents the types of CAT tools used by the respondents by responding to the question "What type(s) of CAT Tools do you use?" where a respondent could choose more than one option. The results showed that (6) 19.4% of the respondents use Wordfast program; (4) 12.9% of the respondents use the program Omega T; Memo Q program is used by (3) 9.68% of the respondents; SDL Trados program is used by (5) 16.13% of the respondents; while the highest number of the respondents use other programs as shown in Table 9 below. Among the different types of CAT tools programs, it is noticed that the highest number of respondents prefer to use the program Wordfast.

Table 9: Types of CAT Tools Used by the Translators

| | | No | Yes | Total |
|--|-----------|--------|-------|-------|
| Wordfast | Frequency | 25 | 6 | 31 |
| | Percent | 80.6% | 19.4% | 100.0 |
| | | | | |
| | | No | Yes | Total |
| Omega T | Frequency | 27 | 4 | 31 |
| | Percent | 87.1% | 12.9% | 100.0 |
| | | | | |
| | | No | Yes | Total |
| Memo Q | Frequency | 28 | 3 | 31 |
| | Percent | 90.32% | 9.68% | 100.0 |
| | | | | |
| | | No | Yes | Total |
| SDL Trados | Frequency | 26 | 5 | 31 |
| | Percent | 83.87% | 16.13 | 100.0 |
| | | | | |
| Other (Google translator toolkit; Matecat, | | No | Yes | Total |
| Smartcat; Google translate; Google translate & | Frequency | 23 | 8 | 31 |
| Al-Wafi; Google translation English into Arabic only; Memsource; Reverso/ almaany/ Google translation) | Percent | 74.19% | 25.81 | 100.0 |

The respondents were asked how they got access to CAT tools, as shown in Table 10 below. In answering the question "How did you get access to CAT tools?", the respondents were allowed to choose more than one option. The results showed that (6) 10.5% of the respondents answered that they purchased CAT tools by themselves; (21) 36.8% of the respondents downloaded the Tools from the internet for free; and the other remaining part of the respondents (5) 8.8% chose the option "Other," explaining that some CAT tools are web applications, so translators work on them online. No respondents opted for the items "Purchased by the translation agency you work for" and "Provided by your school."

Table 10: How the Translators Got CAT Tools

| Purchased by yourself | | No | Yes | Total |
|---------------------------------------|-----------|-------|-------|-------|
| | Frequency | 51 | 6 | 57 |
| | Percent | 89.5% | 10.5% | 100.0 |
| Downloaded from the internet for free | | No | Yes | Total |
| | Frequency | 36 | 21 | 57 |

| | Percent | 63.2% | 36.8% | 100.0 |
|--|-----------|-------|-------|-------|
| O41 | | No | Yes | Total |
| Other (some are web applications, from the | Frequency | 52 | 5 | 57 |
| internet) | Percent | 91.2% | 8.8% | 100.0 |

The respondents were asked if they had ever taken any training courses on CAT tools, as shown in Table 11 below. The respondents were allowed to choose more than one choice. The results showed that (4) 7.0% of the respondents had a training program by the company/institution; (17) 29.8% of them have never taken any training program; (4) 7.0% of the respondents had a training program during college study; (3) 5.3% had a training course after graduation; and the remaining respondents (4) 7.0% chose "Other", with some of them further specified the option "Other" by indicating that they 'trained themselves by reading and watching videos from the internet.' Therefore, the results showed that the highest number of respondents indicated that they had never taken any training.

Table 11: The Translators' Chances for Training Courses on CAT Tools

| Training and grown by the | | No | Yes | Total |
|---|-----------|-------|-------|-------|
| Training program by the company/institution | Frequency | 50 | 7 | 57 |
| company/institution | Percent | 87.7% | 12.3% | 100.0 |
| | | No | Yes | Total |
| Never taken any training course. | Frequency | 40 | 17 | 57 |
| | Percent | 70.2% | 29.8% | 100.0 |
| | | No | Yes | Total |
| During college study | Frequency | 53 | 4 | 57 |
| | Percent | 93.0% | 7.0% | 100.0 |
| | | No | Yes | Total |
| Training courses after graduation | Frequency | 54 | 3 | 57 |
| | Percent | 94.7% | 5.3% | 100.0 |
| | | No | Yes | Total |
| Other | Frequency | 53 | 4 | 57 |
| | Percent | 93.0% | 7.0% | 100.0 |

B. Attitudes of Translators towards CAT Tools

This section is specified only for respondents who use CAT tools with a view to investigating their attitudes towards the use of CAT tools in translation. To find the respondents' attitudes towards CAT tools, the respondents were given 5 choices to present their opinions about the tools. This study followed the model of evaluation scale suggested by Granell-Zafra (2006): "Agree; Strongly agree; Don't know; Disagree; and Strongly Disagree".

As for the statement "CAT tools make my job easier," a proportion of (16) 28.1% of the respondents agreed, and (13) 22.8% strongly agreed, as shown in Table 12.

Table 12: Making the Translator's Job Easier

| | | Agree | Strongly Agree | Total |
|-----------|------|-------|-------------------|-------|
| Frequency | 28 | 16 | 13 | 57 |
| Percent | 49.1 | 28.1 | 22.8 | 100.0 |

In Table 13, the results showed that most of the respondents (14) 24.6% agreed that CAT tools improve their performance; (11) 19.3% strongly agreed; (2) 3.5% did not know; and (2) 3.5% disagreed.

Table 13: Improving the Translator's Performance

| | | Agree | Disagree | Don't Know | Strongly Agree | Total |
|-----------|------|-------|----------|---------------|-------------------|-------|
| Frequency | 28 | 14 | 2 | 2 | 11 | 57 |
| Percent | 49.1 | 24.6 | 3.5 | 3.5 | 19.3 | 100.0 |

Table 14 shows how CAT tools enable translators to have control over their work. The results showed that (17) 29.8%, the majority of the respondents, agreed; (9)15.8% strongly agreed; and 5.3% (3) did not know.

Table 14: Enabling Translators to have control over their Work

| | | | Don't | Strongly | |
|-----------|------|-------|-------|----------|-------|
| | | Agree | Know | Agree | Total |
| Frequency | 28 | 17 | 3 | 9 | 57 |
| Percent | 49.1 | 29.8 | 5.3 | 15.8 | 100.0 |

The opinion of the respondents about the attitude that "CAT tools fit well with the way I like to work as a translator," (11) 19.3% the majority of the respondents agreed; (7) 12.3% strongly agreed; (9) 15.8% of the respondents did not know; and only (1) 1.8% disagreed, as shown in Table 15.

Table 15: Suitability of CAT Tools to the Translator's Work Progress

| | | Agree | Disagree | Don't Know | Strongly Agree | Total |
|-----------|------|-------|----------|------------|----------------|-------|
| Frequency | 29 | 11 | 1 | 9 | 7 | 57 |
| Percent | 50.9 | 19.3 | 1.8 | 15.8 | 12.3 | 100.0 |

As for the item "CAT tools increase my productivity," Table 16 shows that (14) 24.6%, the biggest number of the respondents, agreed; (12) 21.1% strongly agreed; and only (2) 3.5% did not know.

Table 16: Increasing the Translator's Productivity

| | | Agree | Don't Know | Strongly Agree | Total |
|-----------|------|-------|---------------|-------------------|-------|
| Frequency | 29 | 14 | 2 | 12 | 57 |
| Percent | 50.9 | 24.6 | 3.5 | 21.1 | 100.0 |

As for the item "CAT tools are compatible with the type of translation task that translators undertake," the results showed that (13) 22.8%, the highest number of the participants, agreed; (8) 14.0% strongly agreed; (7)12.3% did not know; and only (1) 1.8% disagreed, as shown in Table 17.

Table 17: Compatibility of CAT Tools with the Type of Translation Task

| | | Agree | Disagree | Don't Know | Strongly Agree | Total |
|-----------|------|-------|----------|---------------|-------------------|-------|
| Frequency | 28 | 13 | 1 | 7 | 8 | 57 |
| Percent | 49.1 | 22.8 | 1.8 | 12.3 | 14.0 | 100.0 |

Table 18 presents the results of the item "CAT tools enable me to accomplish the tasks more quickly." The results showed that (10) 17.5% of the respondents agreed; (17) 29.8%, representing the highest number of the respondents, strongly agreed; while only (1) 1.8% chose the option "do not know."

Table 18: Enabling the Translators to Accomplish Their Tasks More Quickly

| | | | | Don't | Strongly | |
|-----------|------|-------|----------|-------|----------|-------|
| | | Agree | Disagree | Know | Agree | Total |
| Frequency | 28 | 10 | 1 | 1 | 17 | 57 |
| Percent | 49.1 | 17.5 | 1.8 | 1.8 | 29.8 | 100.0 |

Table 19 shows the responses to the item "CAT tools help translators to provide high-quality translation work" (19) 33.3%, the dominant number of respondents agreed; (7) 12.3% strongly agreed; however, (3) 5.3% selected the choice "do not know."

Table 19: CAT Tools Help in Producing High-Quality Translation Work

| | | Agree | Don't Know | Strongly Agree | Total |
|-----------|------|-------|---------------|-------------------|-------|
| Frequency | 28 | 19 | 3 | 7 | 57 |
| Percent | 49.1 | 33.3 | 5.3 | 12.3 | 100.0 |

As for the item "CAT tools are easy for me to use," the results showed that (15) 26.3%, the highest number of respondents, agreed; (12) 21.1% strongly agreed; while only (2) 3.5% chose "don't know" as shown in Table 20.

Table 20: CAT Tools are Easy to Use by Translators

| | | Agree | Don't Know | Strongly Agree | Total |
|-----------|------|-------|---------------|-------------------|-------|
| Frequency | 28 | 15 | 2 | 12 | 57 |
| Percent | 49.1 | 26.3 | 3.5 | 21.1 | 100.0 |

C. The Impact of CAT Tools on Translators

With reference to the impact of CAT tools on the translators, respondents had 5 measurement criteria: "High, Very High, Medium, Low, Very Low." Table 21 shows the impact of CAT tools on the quality of translators' work. (18) 31.6%, the dominant number of the respondents chose high; (7) 12.3% chose medium; while (5) 8.8% chose very high.

Table 21: CAT Tools Impact on the Translation Quality

| | | High | Medium | Very high | Total |
|-----------|------|------|--------|-----------|-------|
| Frequency | 27 | 18 | 7 | 5 | 57 |
| Percent | 47.4 | 31.6 | 12.3 | 8.8 | 100.0 |

Table 22 shows that (12) 21.1%, the dominant number of the respondents, chose high for the impact of CAT tools on the consistency of the translator's work; (3) 5.3% chose low; (7) 12.3% chose medium; while (7) 12.3% chose very high.

Table 22: CAT Tools' Impact on the Consistency of Translation

| | | High | Low | Medium | Very high | Total |
|-----------|------|------|-----|--------|--------------|-------|
| Frequency | 28 | 12 | 3 | 7 | 7 | 57 |
| Percent | 49.1 | 21.1 | 5.3 | 12.3 | 12.3 | 100.0 |

As for the impact of CAT tools on the translators' productivity, 17.5% (10) of the respondents selected high; 10.5% (6) chose medium; and 22.8% (13), the highest number of the respondents chose very high, as shown in Table 23.

Table 23: CAT Tools Impact on the Translator's Productivity

| | | High | Medium | Very high | Total |
|-----------|------|------|--------|-----------|-------|
| Frequency | 28 | 10 | 6 | 13 | 57 |
| Percent | 49.1 | 17.5 | 10.5 | 22.8 | 100.0 |

In terms of "the impact of CAT tools on the effectiveness of translators' work," (16) 28.1%, the highest number of the respondents, chose high; only (1) 1.8% of the respondents chose low; (5) 8.8% chose medium; and (8) 14.0% chose very high as shown in Table 24.

Table 24: CAT Tools Impact on the Effectiveness of the Translator's Work

| | | High | Low | Medium | Very high | Total |
|-----------|------|------|-----|--------|--------------|-------|
| Frequency | 27 | 16 | 1 | 5 | 8 | 57 |
| Percent | 47.4 | 28.1 | 1.8 | 8.8 | 14.0 | 100.0 |

As for "the impact of CAT tools on the translator's time of work," Table 25 shows that (12) 21.1% of the respondents chose high; (1) 1.8% chose low; (4) 7.0% chose medium; and (13) 22.8%, the biggest number of the respondents, chose very high.

Table 25: Impact on the Time of the Translator's Work

| | | High | Low | Medium | Very high | Total |
|-----------|------|------|-----|--------|-----------|-------|
| Frequency | 27 | 12 | 1 | 4 | 13 | 57 |
| Percent | 47.4 | 21.1 | 1.8 | 7.0 | 22.8 | 100.0 |

Regarding "the impact of CAT tools on the translator's income," the results showed that (8) 14.0% of the respondents chose high; (2) 3.5% chose low; (11) 19.3%, the dominant number of the respondents, chose medium; and (8)14.0% chose very high, as shown in Table 26.

Table 26: Impact on the Translator's Income

| | | High | Low | Medium | Very high | Total |
|-----------|------|------|-----|--------|-----------|-------|
| Frequency | 28 | 8 | 2 | 11 | 8 | 57 |
| Percent | 49.1 | 14.0 | 3.5 | 19.3 | 14.0 | 100.0 |

About the impact of CAT tools on "the volume of work that the translators undertake," Table 27 shows that (15) 26.3%, the majority of the respondents, chose high; (7) 12.3% chose medium; (8) 14.0% chose very high.

Table 27: Impact on the Volume of Work the Translator Undertakes

| | | High | Medium | Very high | Total |
|-----------|------|------|--------|-----------|-------|
| Frequency | 27 | 15 | 7 | 8 | 57 |
| Percent | 47.4 | 26.3 | 12.3 | 14.0 | 100.0 |

Table 28 shows that (9) 15.8%, the highest number of the respondents, mentioned that the impact of CAT tools on the number of submitted work by clients is high; only (1) 1.8% chose low; (8) 14.0% chose medium; (7) 12.3% chose very high; however, only (1) 1.8% chose very low.

Table 28: Impact on the Number of Clients the Translators Have

| | | High | Low | Medium | Very high | Very low | Total |
|-----------|------|------|-----|--------|-----------|----------|-------|
| Frequency | 31 | 9 | 1 | 8 | 7 | 1 | 57 |
| Percent | 54.4 | 15.8 | 1.8 | 14.0 | 12.3 | 1.8 | 100.0 |

D. The Difficulties Encountered by Translators when Adopting CAT Tools

Regarding the difficulties encountered by translators when adopting CAT tools, the respondents were given in the questionnaire a list of difficulties that they might encounter when using CAT tools. The five-point evaluation scale "Agree; Strongly Agree; Don't know; Disagree; Strongly Disagree" was used, following the model suggested by Granell-Zafra (2006).

Table 29 shows that one of the difficulties is that "CAT tools require a lot of mental effort." The results showed that (9) 15.8% of the respondents agreed; (4) 7.0% strongly agreed; (2) 3.5% didn't know; (12) 21.1%, the dominant number of the respondents, disagreed; and (1) 1.8% strongly disagreed.

Table 29: CAT Tools Require a Lot of Mental Effort

| | | Agree | Disagree | Don't know | Strongly Agree | Strongly Disagree | Total |
|-----------|------|-------|----------|---------------|-------------------|----------------------|-------|
| Frequency | 29 | 9 | 12 | 2 | 4 | 1 | 57 |
| Percent | 50.9 | 15.8 | 21.1 | 3.5 | 7.0 | 1.8 | 100.0 |

In Table 30, the result showed that (11) 19.3%, the highest number of the respondents, agreed that "CAT tools required a lot of time to learn how to use them"; (4) 7.0% strongly agreed; (3) 5.3% didn't know; (9) 15.8% disagreed; while (1) 1.8% strongly disagreed.

Table 30: CAT Tools Require a lot of Time to Learn How to Use them

| | | Agree | Disagree | Don't know | Strongly Agree | Strongly Disagree | Total |
|-----------|----|-------|----------|---------------|-------------------|----------------------|-------|
| Frequency | 29 | 11 | 9 | 3 | 4 | 1 | 57 |

Translation Profession in Yemen in Light of Recent Technological Developments: Challenges and Responses to the Use of CAT Tools by Translators

| Percent 50.9 19.3 | 15.8 | 5.3 | 7.0 | 1.8 | 100.0 |
|-------------------|------|-----|-----|-----|-------|
|-------------------|------|-----|-----|-----|-------|

Table 31 shows that (10) 17.5%, the biggest number of the respondents, agreed that "the output of CAT tools is often frustrating, ending up with inadequate translation"; (7) 12.3% of the respondents disagreed; (8) 14.0% did not know, while only (3) 5.3% strongly agreed.

Table 31: CAT Tools' Output is Often Frustrating, Ending up with Inadequate

Translation

| | | Agree | Disagree | Don't know | Strongly Agree | Total |
|-----------|------|-------|----------|---------------|-------------------|-------|
| Frequency | 29 | 10 | 7 | 8 | 3 | 57 |
| Percent | 50.9 | 17.5 | 12.3 | 14.0 | 5.3 | 100.0 |

Table 32 shows that (15) 26.3%, the dominant number of the respondents, agreed that "technological facilitations like computers, internet connection, applications, etc." are needed; (11) 19.3% strongly agreed; only (1) 1.8% didn't know, and only (1) 1.8% disagreed.

Table 32: CAT Tools Need Technological Facilitations

| | | 111 1001 | 3 1 10 000 1 000 | moregie | + 0.0 | 0.10 |
|-----------|------|----------|------------------|---------------|-------------------|-------|
| | | Agree | Disagree | Don't know | Strongly Agree | Total |
| Frequency | 29 | 15 | 1 | 1 | 11 | 57 |
| Percent | 50.9 | 26.3 | 1.8 | 1.8 | 19.3 | 100.0 |

Table 33 shows that (14) 24.6%, the highest number of respondents, agreed that "CAT tools are not always available"; (8) 14.0% strongly agreed; while only (1) 7.0% did not know; and (3) 5.3% disagreed.

Table 33: CAT Tools are Not Always Available

| | | Agree | Disagree | Don't know | Strongly Agree | Total |
|-----------|------|-------|----------|---------------|-------------------|-------|
| Frequency | 28 | 14 | 3 | 4 | 8 | 57 |
| Percent | 49.1 | 24.6 | 5.3 | 7.0 | 14.0 | 100.0 |

Table 34 shows that (11) 19.3%, the highest number of respondents, agreed that "translators cannot depend on CAT tools"; (5) 8.8% strongly agreed; (7) 12.3% did not know; while (5) 8.8% disagreed.

Table 34: The Translator Cannot Depend on CAT Tools

| | | Agree | Disagree | Don't know | Strongly Agree | Total |
|-----------|------|-------|----------|---------------|-------------------|-------|
| Frequency | 29 | 11 | 5 | 7 | 5 | 57 |
| Percent | 50.9 | 19.3 | 8.8 | 12.3 | 8.8 | 100.0 |

Table 35 displays that (11) 19.3% of the respondents agreed that "CAT tools always need power resources like electricity." (15) 26.3%, the biggest number of the respondents, strongly agreed, and (3) 5.3% did not know.

Table 35: CAT Tools Always Need Power Resources like Electricity

| | | Agree | Don't know | Strongly Agree | Total |
|-----------|------|-------|---------------|-------------------|-------|
| Frequency | 28 | 11 | 3 | 15 | 57 |
| Percent | 49.1 | 19.3 | 5.3 | 26.3 | 100.0 |

Table 36 shows that (8) 14.0% of the respondents agreed that "CAT tools cost a high price". (10) 17.5%, the dominant number of the respondents strongly agreed; while (6) 10.5% did not know; (4) 7.6% disagreed; and only (1) 1.8% strongly disagreed.

Table 36: CAT Tools are of High Price

| | | Agree | Disagree | Don't know | Strongly Agree | Strongly Disagree | Total |
|-----------|------|-------|----------|---------------|-------------------|----------------------|-------|
| Frequency | 28 | 8 | 4 | 6 | 10 | 1 | 57 |
| Percent | 49.1 | 14.0 | 7.0 | 10.5 | 17.5 | 1.8 | 100.0 |

In response to the difficulties resulting from "the lack of professional training courses or workshops for students/translators on the use of CAT tools in their college/companies," (6) 10.5% of the respondents agreed; (16) 28.1%, the dominant number of the respondents, strongly agreed; (4) 7.0% did not know; and (3) 5.3% disagreed, as shown in Table 37.

Table 37: Lack of Professional Training for Translators on the Use of CAT Tools

| | <i>-</i> | | Agree | Disagree | Don't know | Strongly Agree | Total |
|---|-----------|------|-------|----------|---------------|-------------------|-------|
| | Frequency | 28 | 6 | 3 | 4 | 16 | 57 |
| I | Percent | 49.1 | 10.5 | 5.3 | 7.0 | 28.1 | 100.0 |

Table 38 illustrates that (13) 22.8%, the biggest number of the respondents agreed that "CAT tools have failed to meet some of the translators' requirements;" (3) 5.3% strongly agreed; (7) 12.3% did not know; (4) 7.0% disagreed; and only (1) 1.8% strongly disagreed.

Table 38: Failure of CAT Tools to Meet Some of the Translator's Requirements

| | | Agree | Disagree | Don't know | Strongly Agree | Strongly Disagree | Total |
|-----------|------|-------|----------|---------------|-------------------|----------------------|-------|
| Frequency | 29 | 13 | 4 | 7 | 3 | 1 | 57 |
| Percent | 50.9 | 22.8 | 7.0 | 12.3 | 5.3 | 1.8 | 100.0 |

Table 39 shows that 7.0% (4) of the respondents agreed that "CAT tools create many problems in the produced translation work;" (3) 5.3% strongly agreed; (7) 12.3% did not know; (12) 21.1%, the highest number of the respondents, disagreed, whereas (2) 3.5% strongly disagreed.

Table 39: CAT Tools Create Many Problems in the Produced Translations

| | | Valid | | | | | | | | | | |
|-----------|------|-------|----------------|------|----------|----------|-------|--|--|--|--|--|
| | | Agree | Agree Disagree | | Strongly | Strongly | Total | | | | | |
| | | Agree | Disagree | know | Agree | Disagree | Total | | | | | |
| Frequency | 29 | 4 | 12 | 7 | 3 | 2 | 57 | | | | | |
| Percent | 50.9 | 7.0 | 21.1 | 12.3 | 5.3 | 3.5 | 100.0 | | | | | |

Table 40 shows that only (1) 1.8% of the respondents agreed that their "use of CAT tools has been a failure;" (10) 17.5% did not know; (15) 26.3%, the highest number of the respondents, disagreed; and (2) 3.5% strongly disagreed.

Table 40: The Translator's Use of CAT Tools has been a Failure

| | | Agree | Disagree | Don't know | Strongly Disagree | Total |
|-----------|------|-------|----------|---------------|----------------------|-------|
| Frequency | 29 | 1 | 15 | 10 | 2 | 57 |
| Percent | 50.9 | 1.8 | 26.3 | 17.5 | 3.5 | 100.0 |

Table 41 illustrates that (7) 12.3% of the respondents agreed that "they have gained fewer benefits than expected from CAT tools"; similarly, (7) 12.3% did not know; whereas (13) 22.8%, the dominant number of respondents, disagreed; and (1) 1.8% strongly disagreed.

Table 41: The Translator Has Gained Fewer Benefits than Expected from CAT Tools

| | | | 10015 | | | |
|-----------|------|-------|----------|---------------|----------------------|-------|
| | | Agree | Disagree | Don't know | Strongly Disagree | Total |
| Frequency | 29 | 7 | 13 | 7 | 1 | 57 |
| Percent | 50.9 | 12.3 | 22.8 | 12.3 | 1.8 | 100.0 |

Table 42 shows that (5) 8.8% of the respondents agreed that "CAT tools are hard to deal with"; (2) 3.5% strongly agreed; (5) 8.8% did not know; on the other hand, (14) 24.6%, representing the highest number of the respondents, disagreed; and (3) 5.3% strongly disagreed.

Table 42: CAT Tools are Hard to Deal with

| | | Agree | Disagree | Don't know | Strongly Agree | Strongly Disagree | Total |
|-----------|------|-------|----------|---------------|-------------------|----------------------|-------|
| Frequency | 28 | 5 | 14 | 5 | 2 | 3 | 57 |
| Percent | 49.1 | 8.8 | 24.6 | 8.8 | 3.5 | 5.3 | 100.0 |

In response to the open-ended question, "Do you think CAT tools will replace human resources?", the majority of the respondents, (36) 62.8%, believed that CAT tools will not be able to replace human resources; while (8) 14.4% of the respondents showed their concern that CAT tools would take the place of human translators.

5. Discussion of Results

Translators' Awareness of CAT Tools:

Regarding the results related to the translator's awareness of CAT tools within the Yemeni context, it is noticed that the majority of the respondents, 50 (87.7%) out of 57 of the respondents, are aware of the importance of CAT tools in today's world of globalization. Although not all the respondents use these recently introduced technological tools, they have some information about the importance of CAT tools and how they can assist translators in their work. The present study reached different results from those of Granell-Zafra (2006), who indicated that there was a low level of use of CAT tools and that almost half of the translators in the sample were not familiar with CAT tools. Unlike Granell-Zafra (2006) and Yao (2017), this study showed that out of the total study sample (57 respondents), 31 (54.4%) use CAT tools. This indicates that a considerable number of translators in Yemen show a tendency to cope with recent developments in translation technology.

On the other hand, the data analysis revealed that 38.6% of the respondents who do not use CAT tools were planning to use the tools in the future. This means that the translators in the survey were aware of the importance of CAT tools in translation, though not in a position to use them at present. The main motives behind the translators' use of CAT tools were: to improve the quality of their translation, save time, and make their job easier. On the other hand, the main reason behind the translators' response that they were not planning to use CAT tools was that they did not trust these technological tools.

Moreover, various obstacles prevent translators from using CAT tools, as indicated in the survey. The results of the data analysis presented the main reasons as follows: some translators cannot afford the complexity of using the tools, or due to their high prices. Other reasons include the following: the respondents did not trust the modern technology tools, the CAT tools waste time when they must work on one task/type of translation, and one of the respondents mentioned that he had no time to learn how to use them. Another reason was that some of the translators in the survey had never heard about them.

The Attitudes of Translators towards CAT Tools

With reference to the study question, "What are the translators' attitudes towards the use of CAT tools in translation?", the results revealed that the translators' attitudes towards the use of CAT tools are quite positive. There was a prevalent agreement among respondents about the advantages they got out of using CAT tools, with a majority of the respondents showing responses of 'agree' and 'strongly agree'. The results showed that a proportion of the respondents agreed that CAT tools made their job easier, improved their performance, and enabled them to have control over their work. They also believe that CAT tools fit well with the way translators flourish in their work, and that they are compatible with the type of translation task translators undertake. In addition, a considerable number of the respondents agreed that CAT tools increase their productivity, enable them to work faster, and provide high-quality translation work, besides being easy to use. These results conform with the

results of Alotaibi (2014), in which the respondents' attitudes towards CAT tools were positive. In line with the findings of Mahfouz (2018) and Çetiner (2018), the present study shows an overall favorable attitude among participants towards CAT tools.

The results related to the study question, "What are the factors that determine the adoption of CAT tools?" revealed that the main determinant for CAT tools adoption was that the translators were aware of the advantages that motivated them to use CAT tools. This includes views that CAT tools make the translation work easier, improve translators' performance, increase productivity, provide high-quality translation work, ensure consistency of translation, assist them in performing more translation work within a short time, and enhance their effectiveness as translators in the competitive labor market.

The Impact of CAT Tools on Translators

To answer the question "Is there any relationship between adopting CAT tools in translation and the performance of the translators?", the study results revealed that the translators' perception of the impact of CAT tools on their work was quite positive. Like Granell-Zafra (2006), the majority of the respondents in this study agreed that CAT tools assist in increasing work productivity, saving time in translation, and ensuring the quality and consistency of their translation outputs. The translators also indicated that CAT tools prove to be effective in increasing the volume of quality translation works and help in attracting more clients to their business. These results also conform with the results of Christensen and Schjoldager (2016) as well as Çetiner (2018).

Challenges to the Adoption of CAT Tools by Translators in Yemen

To answer the question, "What are the difficulties that translators in Yemen encounter when adopting CAT tools?", the results revealed that translators who can use CAT tools encounter various challenges, the most significant of which are: the lack of professional training courses or workshops on CAT tools in their academic institutions or companies; lack of facilities such as power resources which might not be available regularly in Yemen under war at present; and the high price of CAT tools. Moreover, the translators faced other problems, such as a lack of technological facilitations like computer devices, high-speed internet connection, applications, and other electronic services. Besides, a proportion of the respondents reported that they need a lot of time to learn how to use them, and others found that CAT tools have failed to meet some of their requirements. The output of using CAT tools is often frustrating, ending up with inadequate translation, and they cannot depend on CAT tools. Despite these challenges, most of the respondents disagreed with the idea that CAT tools are hard to deal with and create many problems in the translation output. Nevertheless, some respondents find that the use of CAT tools proves to be a failure for them and that they have gained fewer benefits than expected from CAT tools.

As for the idea that CAT tools represent a threat to human translators and that they may replace human resources in the professional world, the results showed that the majority of respondents believed that CAT tools can assist translators in their translation work and facilitate their jobs, but they would not replace human resources. The results of the present study and the study of Sikora (2012) showed that there was a widespread use of CAT tools and many translators were aware of the advantages of using these tools, yet some translators were still unfamiliar with CAT tools or skeptical about this technology.

In a nutshell, this study adds to the literature in the field of translation technology and provides indicators of CAT tools adoption among translators in Yemen, the factors affecting the adoption, and the impacts of the adoption on the work of the translators, which would benefit the translation community and professionals to increase their productivity and efficiency.

6. Conclusions

This study intends to investigate the challenges of using CAT tools by translators in Yemen, showing their responses to these recent technological developments that have transformed the reality of the translation profession in this age of globalization and digitalization. It particularly explores the challenges of using CAT tools, the factors determining their adoption, and their impact on translators' performance. Through a quantitative-qualitative approach, the study showed that the majority of translators in a sample of 57 participants were aware of CAT tools, with a proportion of 73.7% familiar with these modern tools. However, the results showed that not all the participants who have an awareness of CAT tools can use them practically.

The most important challenges that prevented translators from using CAT tools were: translators could not afford the complicated process of using CAT tools, and the high price of CAT tools. Moreover, the crucial inhibitors include the lack of professional training courses or workshops on CAT tools and the lack of facilities such as electricity and high-speed internet connection, which cannot be sustained in Yemen at present due to the war and siege imposed on the country. However, the majority of translators who do not use the tools showed a desire to learn about them and use them in the future to improve the quality of their translation, save time, and make jobs easier. The results of the analysis showed that the attitudes of the participants in the sample towards CAT tools were largely positive.

The factors behind CAT tools adoption among translators in Yemen include making the translator's job easier, increasing their productivity, producing high-quality translation, enhancing the effectiveness and consistency of translation, and assisting translators in producing an abundance of output within a short time. All these factors motivate translators to use CAT tools to improve their performance and ensure the quality of their translation work. Moreover, the findings of the study showed that the majority of the respondents believed that CAT tools would not be able to replace

human translators. This means that even if technology gains more dominance in the field of translation, the human translators' interference is still indispensable.

The findings of the study provided empirical evidence of the impacts of CAT tools adoption on the translation process. The effects of CAT tools adoption reported by the translators in the study sample were quite positive. The most important impacts reported by the respondents were that CAT tools helped them to translate more work with high quality and consistency within a very limited time. CAT tools also help in increasing the number of clients. The only reported negative impact of CAT tools is that they may affect the income of the translators.

The study concludes with a set of recommendations for the concerned authorities and institutions. It emphasizes the need for integrating translation technology within the academic program curricula, providing professional training courses and workshops on the use of CAT tools in universities. Besides, translation centers and companies have to keep pace with the recent developments in the field of translation technology. By utilizing CAT tools appropriately, we can unlock their full potential and enhance the quality of the translation process.

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