The Impact of Translation Technologies on the Translation Process to Give a Quality Output: A Study with Special Reference the Government Translators in Sri Lanka

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***Abstract*: - This article discusses about translation technologies such as CAT tools, machine translation, machine aided translation, terminology management systems and termbases and how these translation technologies affect the quality of the final translation output of the translators in the government sector in Sri Lanka and the problems confronted by them in dealing with technology. The usage of translation technologies have been analyzed using previous literature. The study applies the qualitative approach to collect data. The survey covered fourteen translators in the government sector and gathered data using a semi-structured questionnaire. The data was analyzed using graphs, charts, minitab software and excel sheets to determine the relationship between translation technology and government translators. The results show that the CAT tools, machine aided translation, terminology management systems and termbases have a positive impact for the quality while machine translation negatively affect for the quality of final output of the translators. This study highlights the recent studies conducted in the field to enhance the productivity of government translators to achieve the trilingual policy of the Government.**

***Keywords:* CAT tools, Machine translation, Machine aided translation, Terminology management systems, Termbase, Quality.**

I. INTRODUCTION

The term "Translation" has been defined and understood by different scholars in different ways. The term translation is the combination of "trans+latus" which means the act of transferring through which means the content of a text is transferred from the Source Language into the Target Language (Ordudari, 2008). Generally, translation means rendering the original tone, spirit and meaning of the source text from the source language to a target language while securing the culture, traditions, religions and two different environments. Rendering the translation faithfully is a must when translating a document as it helps cross-cultural communication.

History of Translation and Translation Technology

History of translation headed back to Mesopotamian Era when Sumerian poem, Gilgamesh, was translated into Asian languages (The History of Translation, 2019). Then in the second millennium BC some Buddhist priests have translated some Indian religious documents to the Chinese Language (Sawant, 2015). Later Roman poets have translated Greek texts for the entertainment purposes. The requirement of translation emerged with the improvement of religious writings and religious findings (Plus, 2019). Old Testament which was translated into Greek in the 3rd century BC is considered to be the first translated religious document ("A short history of translation through the ages", 2019). This translation alludes to the 'Septuagint', which was an interpretation of the Hebrew book of scriptures into Greek. In 4th Century AD Saint Jerome created a Latin bible and this bible was translated to many languages. When searching through the history it shows that working as a translator is extremely a dangerous task since many translators have lost their lives because of their work (BIBLICA - THE INTERNATIONAL BIBLE SOCIETY, n.d.). With the Industrial Revolution the economy developed rapidly and paves the way for global success and this success was massive with the invention of internet, modern tools and practices.

Earlier the activity of translation was conducted with the help of pen, piece of paper, type writer and this method is considered to be the old method of translation or "pure version of translation" During 1970s invention of computer made a breathtaking impact since the innovation in electronic tools and software made the translation work much easy and attractive. This pure version of translation has put into a controversial state with the involvement of translation technologies. During 1980s, an American Company named Microsoft developed software programs for the North America and requested from a team of translators to do their translations only from English to prominent languages such as German, French and Spanish. This shows that, during that early period translation activities were conducted in a very small scale and within very common and famous languages. However, with the globalization, the requirement for translation has emerged. Most importantly, in 1980s with the fall in prices for computers, it increased the number of users since each and everybody tends to purchase a computer. With this, the computer was a common factor in day-to-day lives, in organizations. As a result, the translation software were introduced to meet the local standards in a way it suits the

audience. This made technologists to improve their translation technologies and to find more about the field of translation with the help of technology. Most recently scientists have used Artificial Intelligence to increase the quality of translation as a method of translation technology. This is considered to be the highly considered trend in the field of translation and this discipline of translation technology is evolving to give a quality translation while making the task of translators easy.

Translation Quality

It is difficult to measure translation quality. Quality is considered to be an immeasurable factor and if you have clear goals, objectives and accurate methodology it will be easy to measure quality. (Net-translatorscom, 2016). In general, there are two main international standards applied for the translation industry as "ISO 17100" and the "General Management system 9001". ISO 17100 is a quality standard especially written for the translation industry to provide requirements for the core processes, resources, and other aspects necessary for the delivery of a quality translation service that meets applicable specifications (Isoorg, 2019) and yet, it is difficult to measure translation quality (Pangeanic translations, 2019). Following can be defined as characteristics of a Quality Translation. (Masterwordcom, 2017)

- Ability to translate accurately and ability to transfer information accurately from one language to another.
- Appropriate and accurate selection of the required terminology, vocabulary, idiom, register in the target language.
- Appropriate use of spelling, punctuation and syntax and the ability to transfer dates, numbers, figures and names from the source language to the target language.

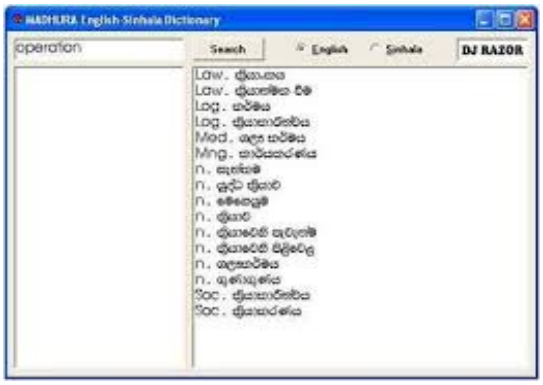
Modern Days in Translation Technologies

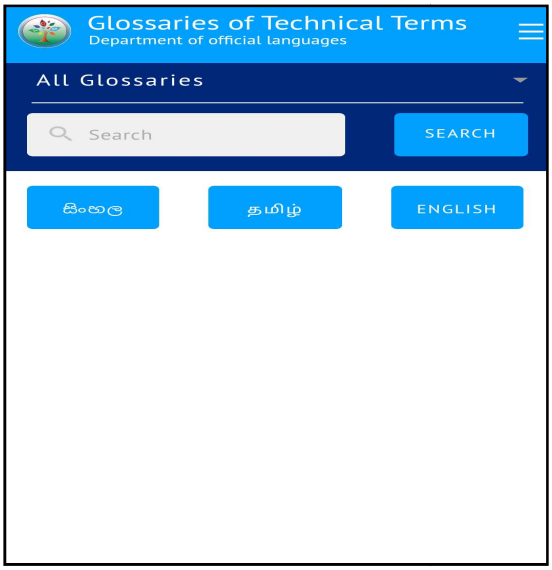
Modern-day translators use sophisticated tools and technologies to accomplish their work. The relationship between translation and computers started with the invention of software that can be used in the process of translation. Among these Translation technologies, computer assisted translation techniques are considered to be the real booster in the process. It seems that machines will replace humans in the near future (Berdica). The most commonly known translation technologies include CAT tools, terminology databases, internet-based applications and terminologies. With the involvement of these technologies, have given risen to new discipline called translation technology. When talking about modern trends in translation technologies, Skype Translation, Statistical Machine Translation, Translation Memories, Translation Portal, Speech Translation, Mobile Translation and most importantly Artificial Intelligence are considered to be the most discussed trends in translation technologies.

Most recently scientists have used Artificial Intelligence to increase the quality of translation as a method of translation technology. Still scientists are doing researches whether Artificial Intelligence can be used in the process of translation. With the global business value from artificial intelligence (AI) projected to reach $1.9 trillion in 2019, it is clear that the use of AI in translation will continue to grow this year. Companies such as Google, Microsoft, Amazon, Apple, and IBM continuing to develop AI technology (Ulatuscom, 2019).

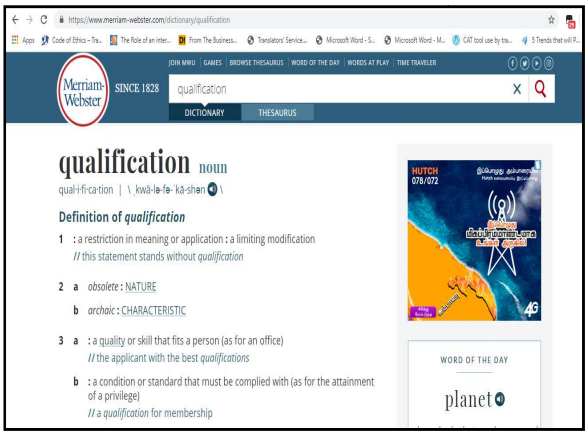
Electronic Dictionaries

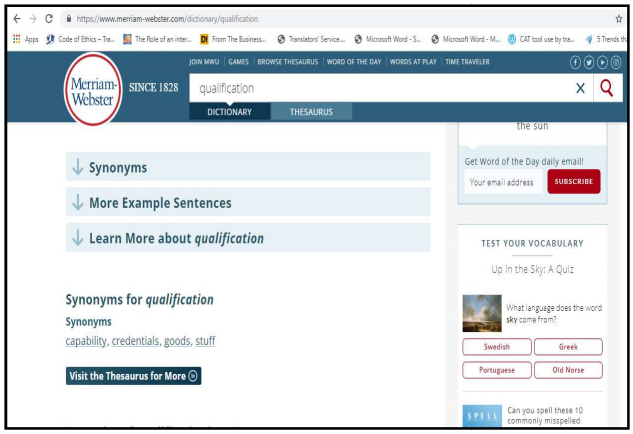
These are the dictionaries available for the translators in digital mode. These dictionaries provide meanings, spellings and synonyms for a word. These are very useful and saves the time of the translator since the translator doesn't have to go through hundreds of pages to refer a word. In Sri Lanka, there are only two English to Sinhalese dictionaries namely Malalasekra English Sinhala Dictionary and Godage English Sinhalese Dictionary. Among these two dictionaries, most popular dictionary is the Malalasekara English Sinhala Dictionary. Yet, when it comes to the Sinhalese-English dictionaries, it is out of sorts to say that, evolution of Sinhalese-English dictionaries was started recently. These non-electronic dictionaries are expensive and with the evolution of time it is crucial to make changes to the dictionary and therefore, the users have to buy dictionaries with the new editions. Most of the time these dictionaries have a large number of pages and it is difficult to carry with the translator whenever the translator requires traveling. Electronic dictionaries are available in application form as well as in the form of software. Therefore, a translator can download the application or software to the personal computer and if any updates are made to the prevailing electronic dictionary with new words or meanings the translator can easily update the application or software. This is less expensive since the translator doesn't have to buy dictionaries whenever a new update has been introduced by the maker of the electronic dictionary. On the other hand, it saves the translators time which is an important factor for the translator and it has a user-friendly interface where the translator can simply find the word by typing the word either in English or Sinhalese languages in the space they have provided. Therefore, it is obvious that Electronic dictionaries have overcome these obstacles and rejuvenated the field of translation with its qualities.

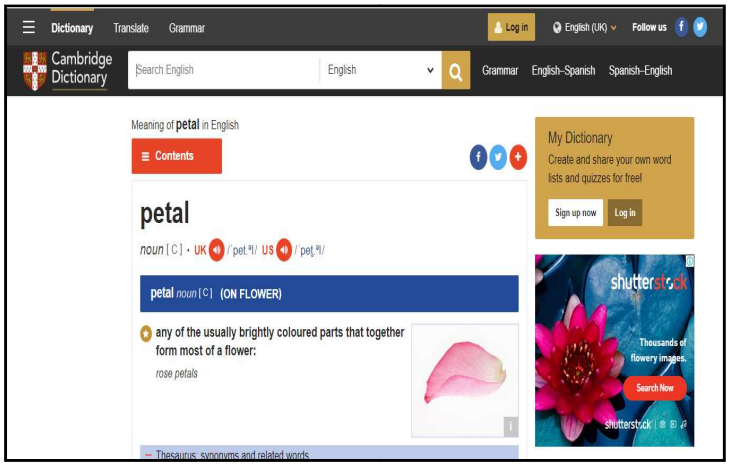




The internet offers bilingual and trilingual dictionaries as well. These dictionaries available online will provide meanings for idiomatic expressions and phrasal verbs and this online version of dictionaries are very comprehensive, some dictionaries provide the meaning for the word along with some example sentences for the ease of the user to get the exact meaning. Not only dictionaries but also thesauruses, grammar, collocations and usage resources are also available in these online sources.

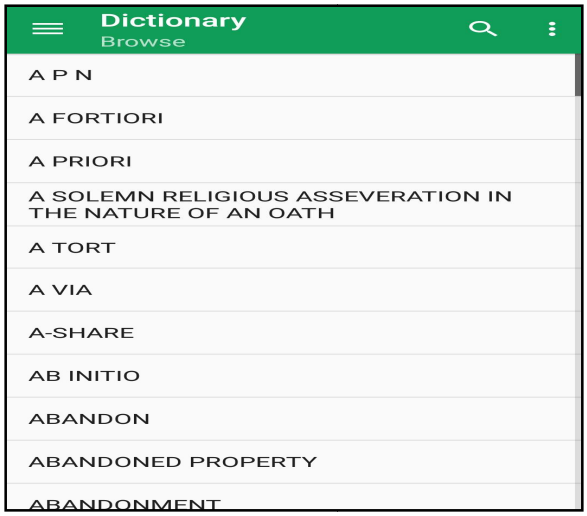


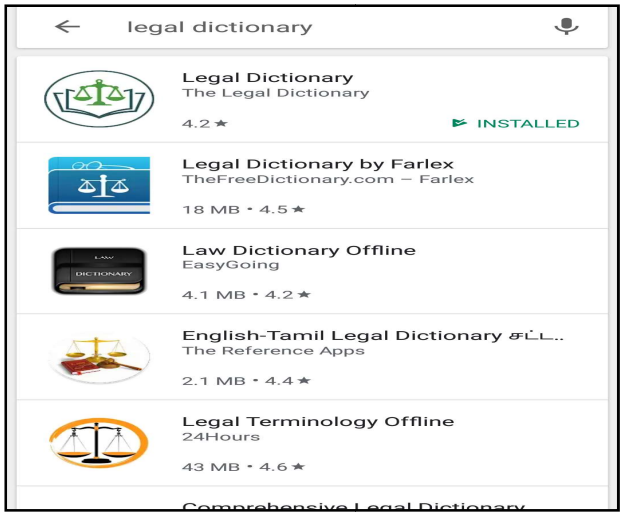


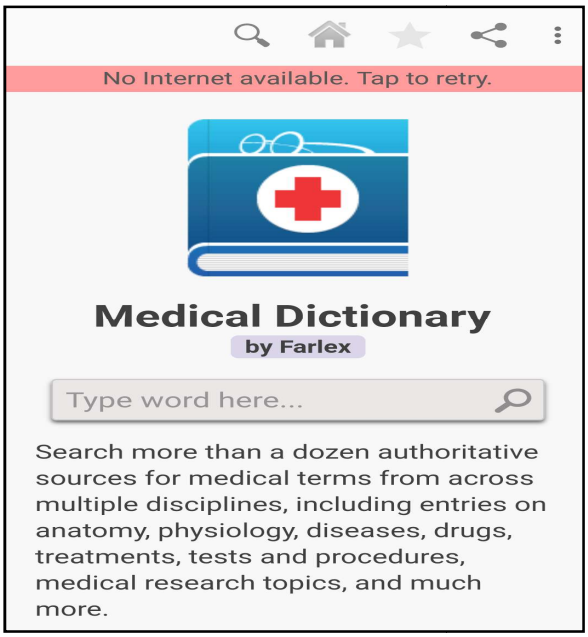


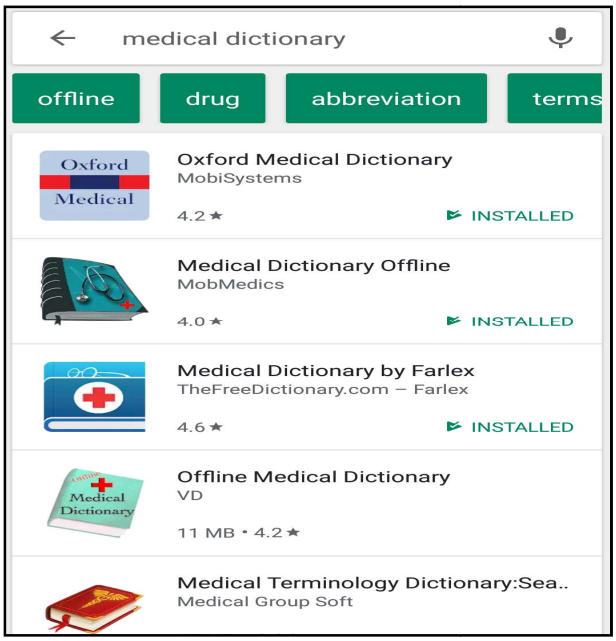
Interface of Cambridge dictionary. This shows an image for the term "petal" for the ease of user's understanding.

The internet also offers specific dictionaries with special terminology such as legal dictionary, medical dictionary, financial dictionary etc. These dictionaries may cost pitiful amount of money to purchase.



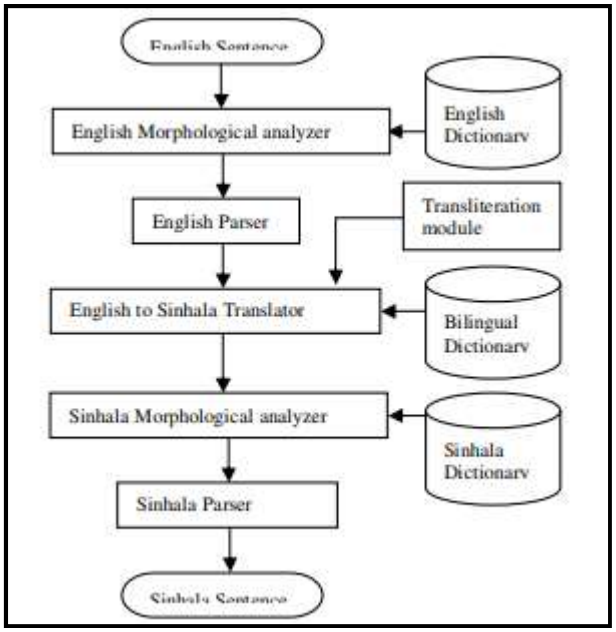






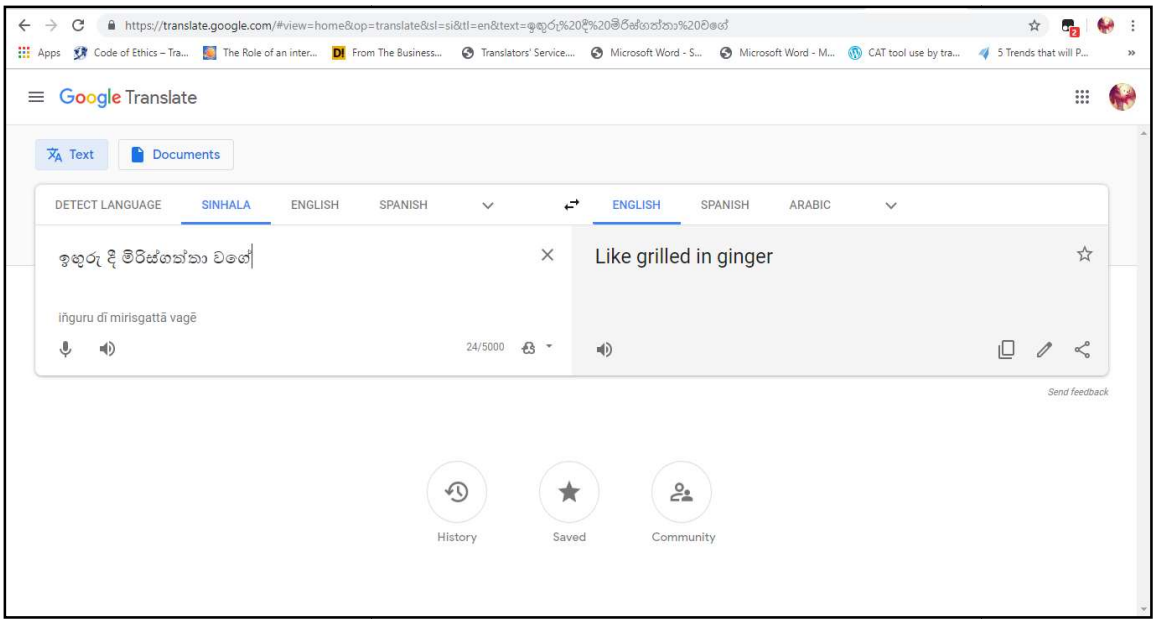
Machine Translation (MT)

Machine Translation or MT is "an automatic translation of text or speech from one language to another". Machine Translation or MT is very important for a person who does not know how to translate on his or her own but need to get something translated according to the needs. This academic and professional area associated with both Translation and Computer Science explores the functions of computer software that can translate texts in foreign languages to another language in a way it is readable and comprehensive. Machine translation was able to achieve a big place in the translation technologies. The endless traffic of communication between different language groups requires translation but when instant translations are needed and in the instances where human translators are not able to supply the translation quickly in situations where a large number of languages and subject fields are involved, machine translation can be used in order to meet the growing translation demand since machine translation systems are seen as a cost-effective alternative to human translators. Machine translation system can be classified into Human Assisted translation, Rule based translation, Statistical translation and Example-based translation. All of these machine translation approaches have their own strengths and weakness (Hettige, 2011). Among them, Human Assisted translation is the most common approach for machine translation. It uses human interaction for the pre editing, post editing and/or intermediate editing stages. Although these areas are available and identified, this area of study is considered be the area where the least amount of recognition is given. Therefore, this area achieved a least growth in past few decades. The complexity in languages may be the reason for this. Creating a MT system for Sinhalese language may be tough since Sinhalese is much closer to several languages like Pāli, Sanskrit, and Tamil. Following figure will show the involvement of translation technologies for the translaion process (Hettige B., Karunananda A. s, 2008).



Source: Core English Sinhalese machine translation system (Hettige B., Karunananda A. s,, 2008).

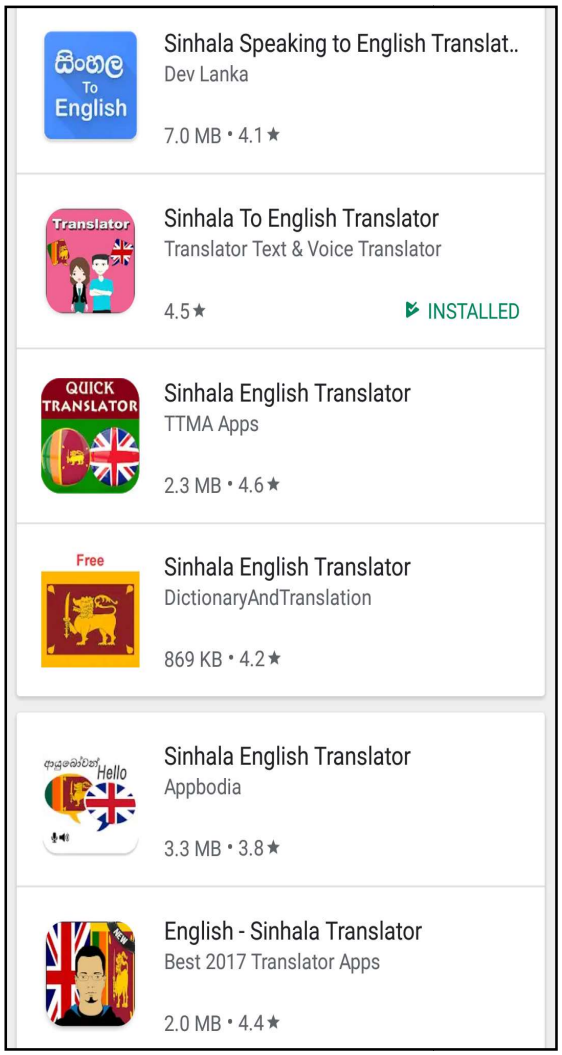
Google translation system is the widely used online machine translation method available. This web translation method is the commonly used translation website around the world since this system has the ability to select between available languages. More than 100 languages are available in Google Translate. Not only Google Translation but also different other online translation websites and applications are available for the users.



This website is used by many users without limiting to translators. In the figure 2.12, it shows that the translation given by the google translation for the above idiom is wrong. Therefore, we have the problem of accuracy. This web translation method is the commonly used translation website around the world since this system has the ability to select between available languages. More than 100 languages are available in google translate.

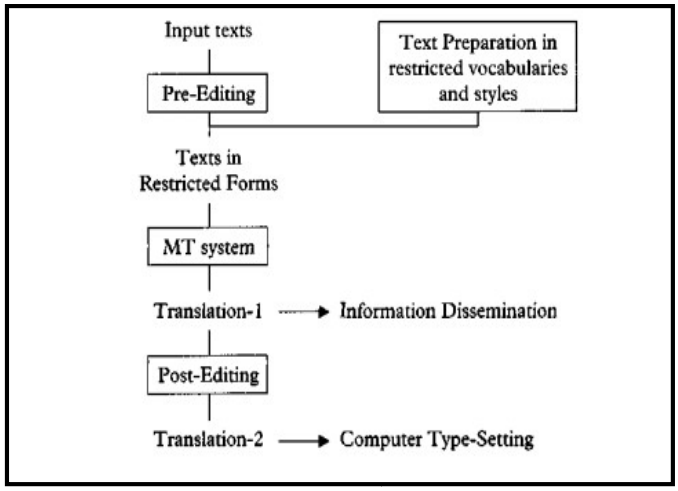
This is another type of MT system online available for the users. This is made only for Sinhalese and English languages and this system is not popular among Sri Lankans. This system has only two languages.

There are much apps in the play store for translation activities.



Machine Aided Translation (MAT)

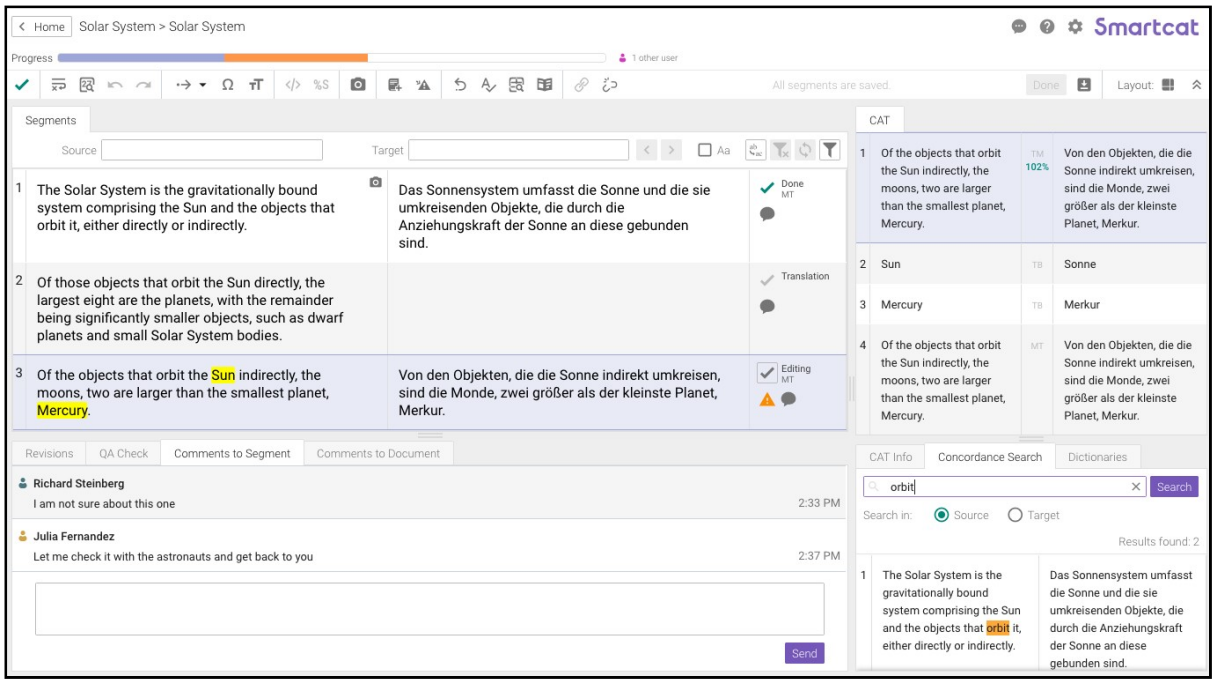
Reducing human effort in translation is the main intention in MT. (Green S., Wang S., Chuang, Heer, and Schuster S, 2014). Yet, with the issues confronted by the users with the quality in MT, scholars suggest MAT. In the process of MAT the output given by the MT will be edited and this is called as the post edition of the output generated by the machine and this output is tend to be more efficient in quality than the output generated by the machine. This output generated by the MT will be edited by a translator or a third person or sometimes by both of them (Tarp, 2014). Hence, following machine aided translation tools are important for translators not someone who does not know translation but wants to get something translated according to the own needs.



Source: Typical flow of the translation process with the involvement of human for the output generated by the MT system (Tsujii, 1990).

CAT Tools

CAT tools stand for Computer Aided Translation, Computer Assisted Translation or Machine Aided Translation. This tool will help the translator to do their work of translation more quickly and they will manage the translation work but it will not do the translation like MT. There are large numbers of CAT tools and large varieties of CAT tools are available in the market and the user can select the best CAT tool based on their requirements. These requirements can be varied form the institutions that the translator is working with, the budget of the translator, the knowledge with translator regarding CAT tools and the required features of CAT tools according to the documents you are translating with. MemoQ, SDL Trados Studio, Wordfast (Classic & Pro), Déjà Vu, Across, CafeTran Espresso, OmegaT, SmartCAT, MateCat, Wordfast and Anywhere, are some of the market leaders in the field of CAT tools (PoliLingua, 2018). Translation memory to keep a record of previously created translation for the ease of translators, segmentation or segmenting the entire documents to segments (sentences) and presents the segment in a convenient way for the translator to translate, resource lookup to grant the translators with the opportunity to access the online resources such as dictionaries and reference materials and predictive typing to complete words and phrases will suggest when translating if the translator is typing based on content in the dictionaries and translation memories are the some of characteristics of CAT tools (Metatexiscom, 2019). Several other features such as Word counts and match analysis to count the number of word that the translator is translating, term extraction to extract the term lists from the memories and spell checkers are available (Andovar, n.d.).



Interface of SmartCAT, a CAT tool

Terminology Management Systems

In the terminology management systems terminology data will be collected, developed, stored, harmonized and updated. These days, translators are taking the advantage of software to manage their terminologies. There are few types of terminology management systems that stand alone and dedicated to this task or systems that is a part of Content Management systems, CAT tools or Translation Management Systems. There is a person called terminologist to manage the terms and terminology. Other than the terminologist, several individuals including engineers, marketers, developers, product managers, technical writers, editors and translators are involved to the task of managing terminologies. Anylexic**,** Acrolinx, Anylexic**,** ApSIC Xbench are some of the software for terminology management systems with specific feature embedded to it such as helping each and every step in the translation process such as creating, editing, searching and exchange, maintaining the consistency throughout the document, centralization or ability of all the translators to share their work and connect with all the other translators in the institution. Sometimes, this software is provided with quality assurance features as well. Therefore, it is translator's responsibility to select the best translation memory for them. (Blogspotcom, 2019)

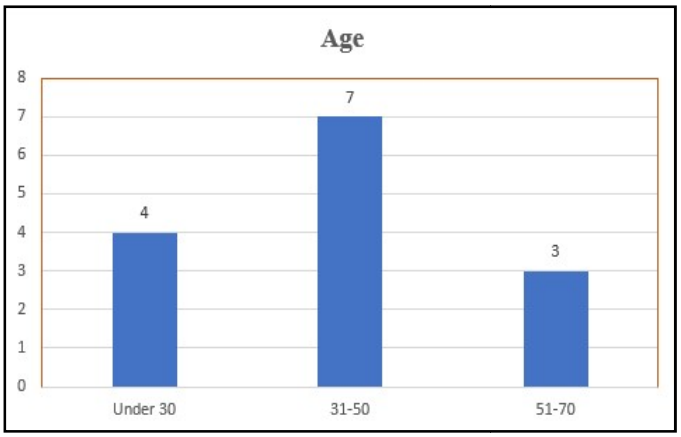
II. METHODOLOGY

"Translators in the government sector" is the population which can also be defined as the unit of analysis. Since the limitation of this research, it is impossible to cover all the translators through-out the island. Hence, some of the translators in the Colombo District who work in Government Departments and Ministries were accessed. Therefore, the sampling frame was the translators who work in the Government Departments and Ministries.

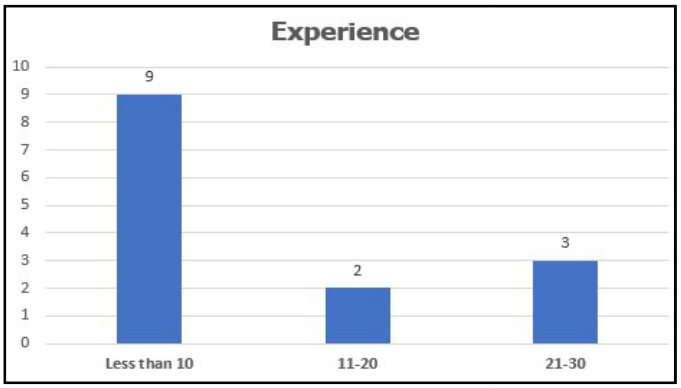
In this study, since the amount of government translators is limited, a population of 14 government translators were incorporated and among them, 11 translators are serving in the Combined Service of Government Translation, 1 translator is serving on the contract basis and 2 translators are serving in the translator service of Provincial Public Service and they were incorporated when processing the research and only primary data were considered. When selecting this sample, simple random sampling technique was used. The data was collected through a semi-structured questionnaire which includes open ended and close ended questions and later it was analyzed through qualitative methods. Inductive research design which is concerned with the generation of new theory emerging from the data was used and the Naturalism approach has been used as research paradigm which uses qualitative research approach. Therefore, the researchers aim is to collect data and interpret the results in an objective way. Since the research has to be conducted in natural setting with a few numbers of translators, Naturalism approach was selected. Here the researcher has to carefully observe and record behavior or phenomenon. Collected data was analyzed through EXCEL sheets and MInitab software and will provide an insight into the relationship between dependent and independent variables. The results of this study were presented using pie charts, bar charts and tables with statistical exposure for the ease of understanding of the reader. Each questionnaire has been studied deeply when analyzing data.

III. RESULTS AND DISCUSSION

Most of the participants in the study are differ from 30-70 years of age.

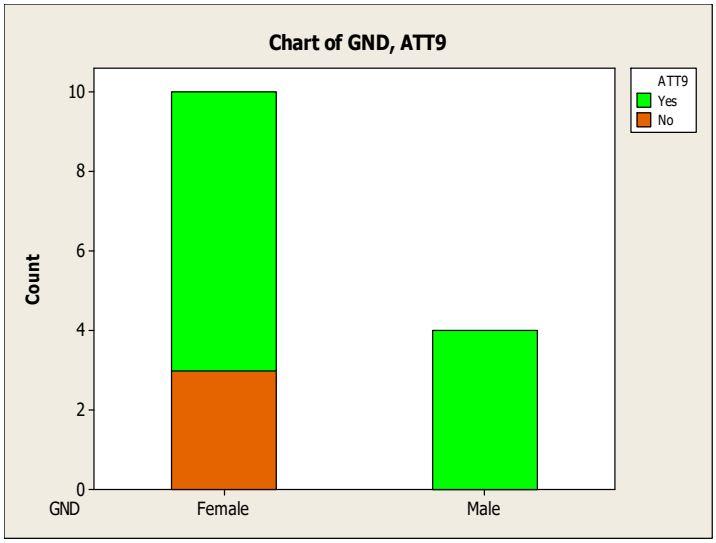


Experience of the translators ranging from 1-30 years are as follows.

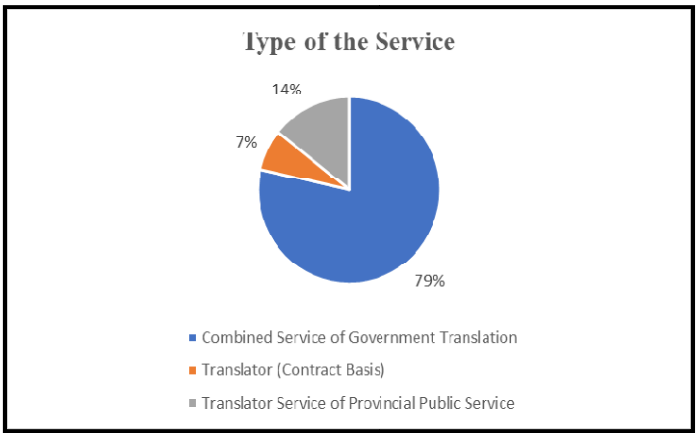


Among all the respondents' majority of the respondents (71%) are females and very few of them are males (29%). 10 of them are females and only 4 of them are males. Among 10 male translators, 7 respondents are aware of translation technologies and they are considered to be 50% of the entire population and among all the female respondents 3 of them aren't aware of translation technologies and they score a 21% of the population. Among 4 male respondents all the individuals are aware of translation technologies and the experience of males are higher than the experience of the females since all the females are younger than the males. There are 10 females among the respondents and from that, 7 females are aware of translation technologies while 3 of them are not aware of translation technologies and all the male respondents are aware of translation technologies.

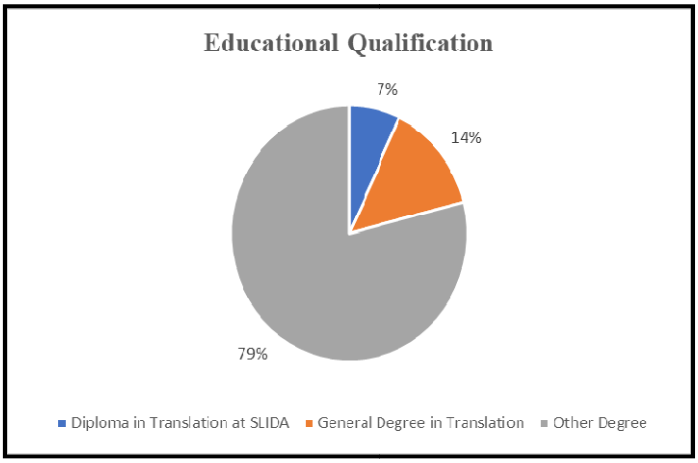
Awareness of Translation Technologies by Gender			
FEMALE (10)	YES	7	50%
	NO	3	21%
MALE (04)	YES	4	29%
	NO	0	0%



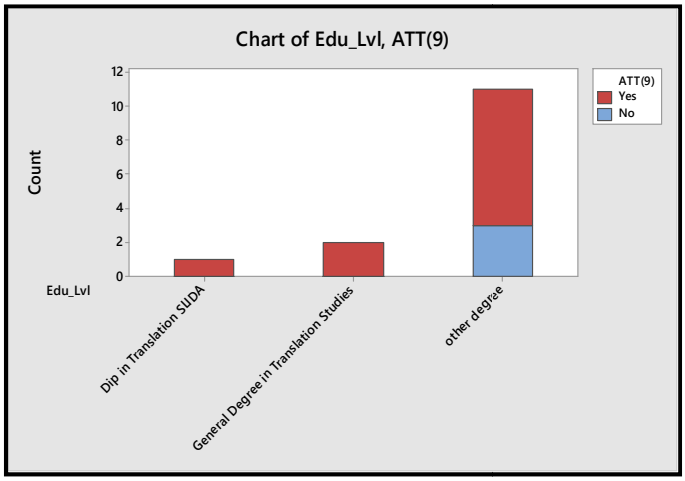
All the 14 respondents are varying from Combined Service of Government Translation, Translator (Contract Basis) and Translator Service of Provincial Public Service.



All the translators in the government sector are well-educated and having at least a diploma level educational qualification. 79% of the sample hold a degree not related to translation studies. Those degree are in the field of Science, Economics, English etc



All the translators who are having Diploma in Translaiton at SLIDA and translators who have a general degree in translation studies are aware of translation technologies since those translaotors have studied about translation technologies as a subject relevant to their degree programme. Among 11 translators who are having other degrees, 8 of them are aware of translation technologies while 3 of them are not aware of translation technologies.



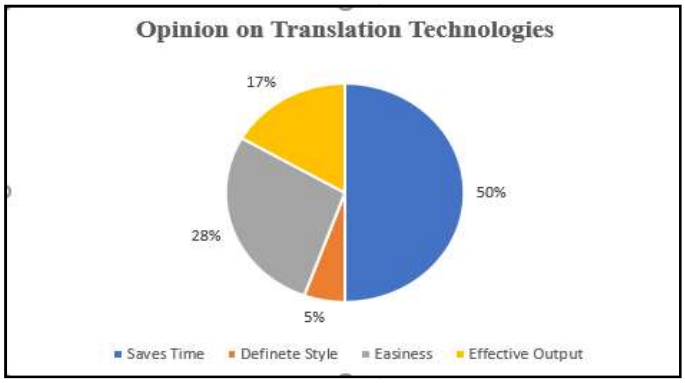
Further, this summarizes that more the experience, the translator gets less awareness in translation technology and less the experience in the field the translator has high awareness in technology.

Translators' Experience and Awareness						
	Less than 10		11-20		21-30	
Number of Translators	9		2		3	
Awareness	YES	NO	YES	NO	YES	NO
Number of Translators	6	3	2	0	3	0
Percentage	43%	21%	15%	0%	21%	0%

Regardless of the age and experience most of the translators believe that having translation technologies is advantageous. All of the translators in the combined service of government translators except of only one translator are aware of translation technologies while all the government translators in the Provincial Public Service are not aware of translation technologies and they are not provided even with internet facility.

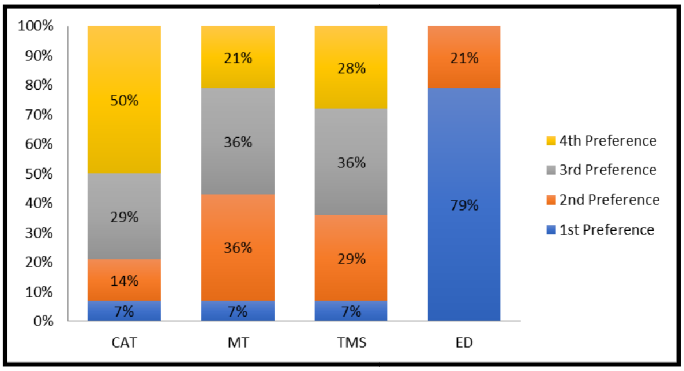
Frequency of awareness on translation technologies with the type of service				
	Combined Service of Government Translators	Translator (Contract Basis)	Translator service of Provincial Public Service	All
NO	1	0	2	3
YES	10	1	0	11
All	11	1	2	14

Respondents think translation technologies are advantageous because of following reasons.

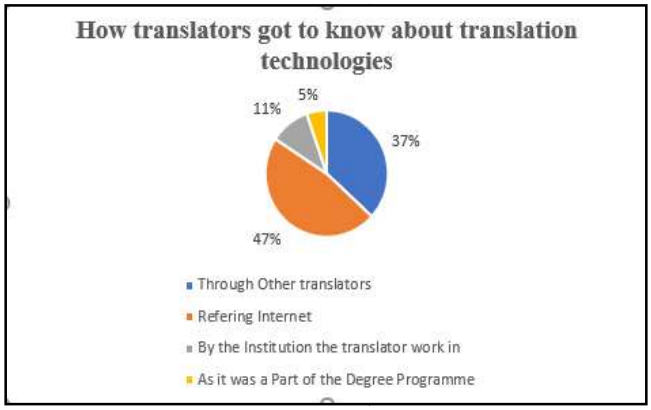


Among all the translators, most of the translators are aware of Electronic Dictionaries and least of them are aware of CAT tools.

Awareness on Translation Technologies				
Ranking	CAT	MT	TMS	ED
1st Preference	7%	7%	7%	79%
2nd Preference	14%	36%	29%	21%
3rd Preference	29%	36%	36%	
4th Preference	50%	21%	28%	

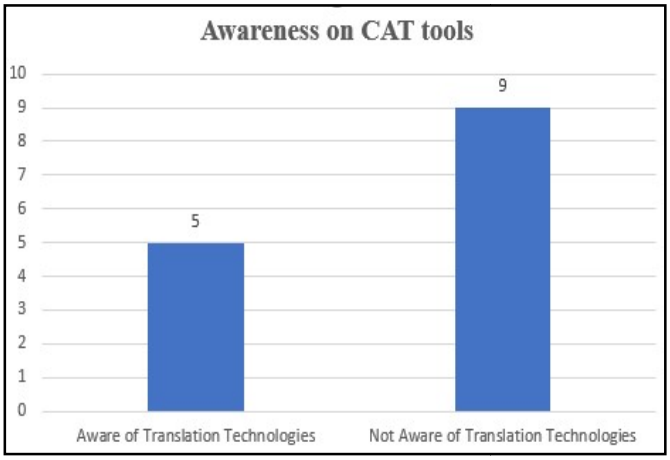


Following table and the pie chart shows how translators got to know about translation technologies.



CAT Tools

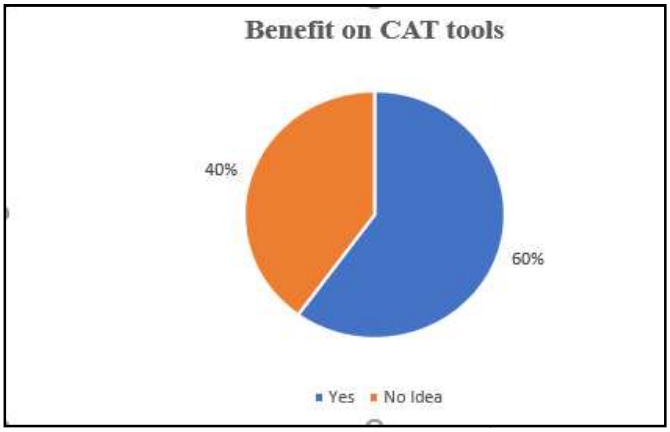
Among all the 14 respondents, only 9 respondents were aware of translation technologies and rest of the 5 respondents are not aware of translation technologies.



Among all the five translators who are aware of translation technologies, only three (60%) of them believe that CAT tools are making their process of translation and the translation work fast, better and profitable and two (40%) of them have no idea on benefit of CAT tools though they are using it.

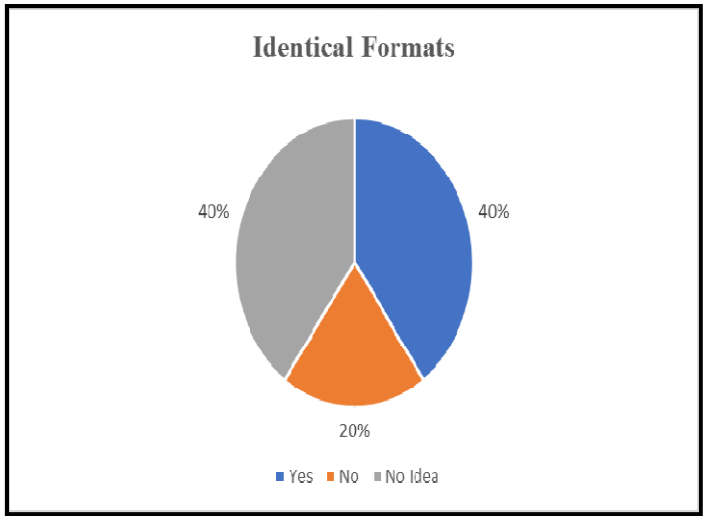
Making translation work faster, better and profitable

60% of the respondents believe that CAT Tools make translation work faster, better and profitable while 40% of them have no idea about that.



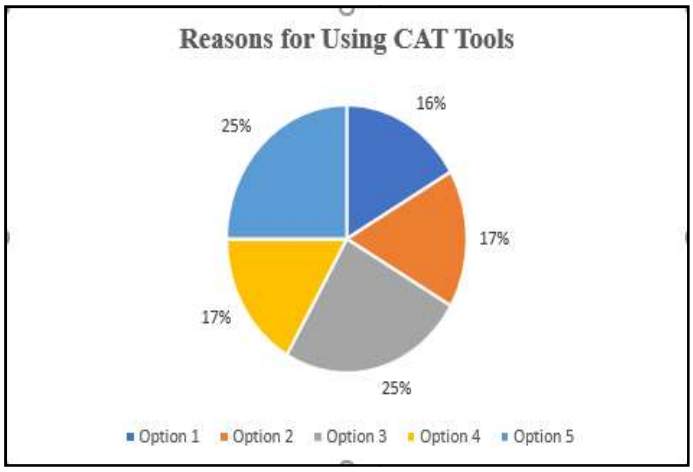
Identical format in both source text and target text

Among all the five respondents who are using CAT tools in their process of translation, The CAT tools are found to be helpful by two respondents or 40% of the respondents as they are giving a translation in the same format similar to the source document. Another two of them or 40% of respondents have no idea about it and 20% of respondents (one respondent among all the five respondents) doesn't agree with the fact that it gives identical formats and all the rest of the respondents haven't provided any responses to the question 15.



Why the translator is using CAT tools

option 1:	CAT tools let you to translate any different file formats without having to use their source applications.
option 2:	It stores and manages your translation.
option 3:	It provides Translation Memories, Auto translation of repetitions, suggests similar translation and suggests terminology.
option 4:	It keeps your translation more accurate.
option 5:	and it gives easy recognition of omitted numbers, forgotten translations inconsistency, formatting.



All the given options are reasoned by 5 of the respondents as to explain why they are using CAT tools. Among all the five translators who are using CAT tools, only three of them have answered this question. This question is having 5 options for the respondents to select and the respondents have given a chance to select any number of options among the given options. Option 1, 2 and 4 has been ticked 2 times (17%), and option 3 and 5 has been ticked 3 times (25%).

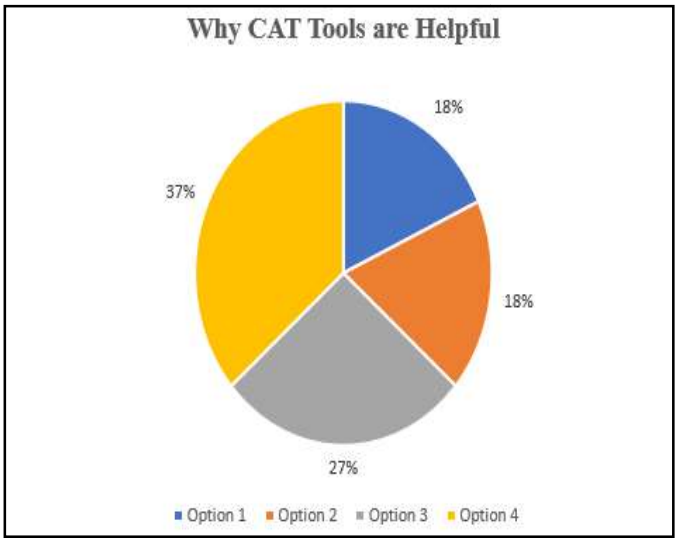
Why CAT tools are helpful?

Option 1: It gives access to online and offline resources such as dictionaries and reference material.

Option 2: Giving predictions of the word you type (Predictive Typing)

Option 3: Automatically checking for grammar and spelling.

Option 4: Preventing writers from using inconsistent terminology, highlights common errors and produces standardized output.



Option 4 has been ticked 4 times (36%) and option 4 is the reason why translators are using CAT tools and this is the highly ticked option among all the options. The second ranked option is option 3 which is 3 times (28%) and option 1 and option 2 are the least ticked options which means online and offline resources such as dictionaries and predictive typing are considered to be least wanted facilities for translators among all the advantages.

CAT tool used by translators

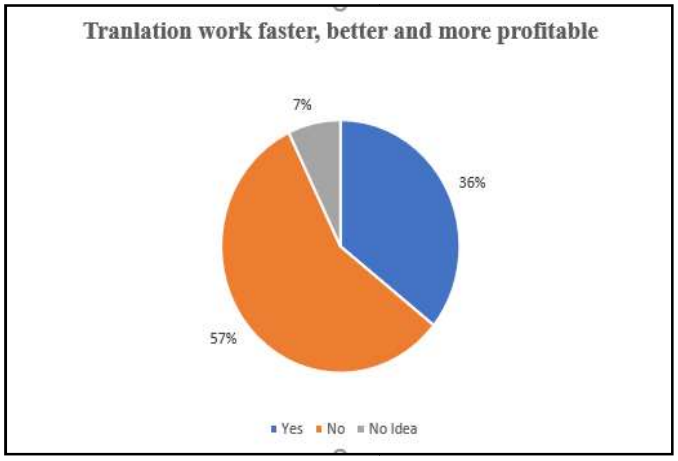
Considering the common CAT tools used in the translation process, both the SDL Trados Studios and smartCAT are seemed to be more popular among CAT tools which are available in the market. Only three respondents have filled this part among all the five respondents and among them smartCAT and SDL Trados Studio are equally used by the respondents who have answered this part. The CAT tool smartCAT has been ticked twice and SDL Trados Studios also have been clicked twice as well. When referring to the reason why their specific CAT tools are using they have mentioned that it makes translation process accurate, faster and error free while some are using these two CAT tools since they are the most famous CAT tools.

CAT Tools Used by Translators				
	SmartCAT	SDL Trados Studio	Omega T	Other
Count	2	2	0	0
Percentage	50%	50%	0%	0%

Machine Translation and Machine Aided Translation

Tranlation work faster, better and more profitable

More than half of the sample do not think that Machine Translation and Machine Aided Translation are making their translation work faster, better and more profitable. Only 36% of them think as those are making their translation work faster, better and more profitable. Only one translator among all the respondent have no idea about that fact. They all suppose that the output given by the machine needed to be modified by a human (Machine Aided translation) to give a good and effective output.



Machine Translation to be modified by a human

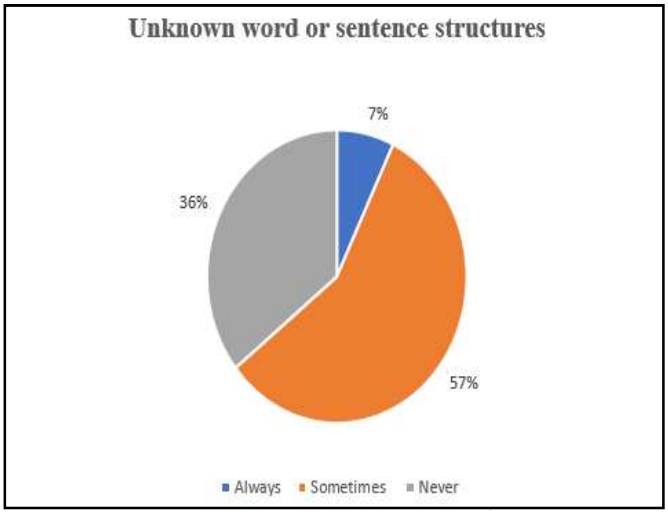
For the question whether the output generated by machine or by the google needed to be modified by human, all the respondents have given the answer yes.

Machine Translated Output has to be Modified by a Human			
	Yes	No	No Idea
Count	14	0	0
Percentage	100%	0%	0%

Unknown word or sentence structures

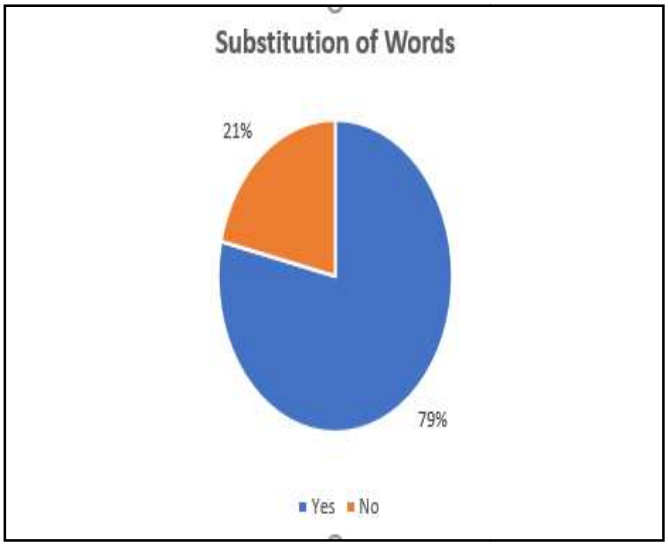
Whenever a translator faced up with an unkown term or a difficult sentence structure where the translator has difficulty to guess and take the correct meaning, eight translators among all the other translators are “sometimes” taking the advantage of machine translation. They are not keeping their 100% trust on machine translation and whenever they come across with an unkown term or a sentence they use machine translation as

their second option and this portion is the portion which scores the highest portion (57%). Second highest portion or 36% of the respondents (5 translators) never use machine translatio to find solutions for unknown terms or for unknown sentence structures but only one translator (7%) is always using machine translation to solve problems related unknown terms and sentence structures.



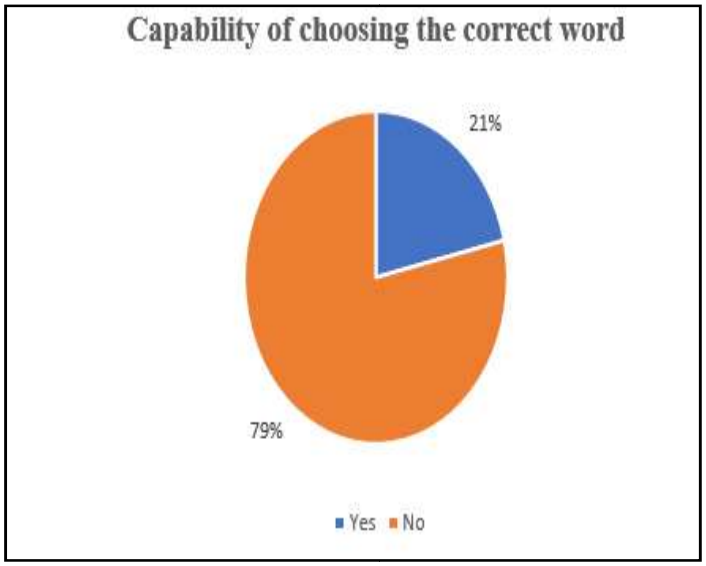
Substitution of Words

More than half of the translators (79%) think that google translation is a substitution of words in the source text with the words in the target language and only three respondents (21%) don't believe that it is a substitution of words.



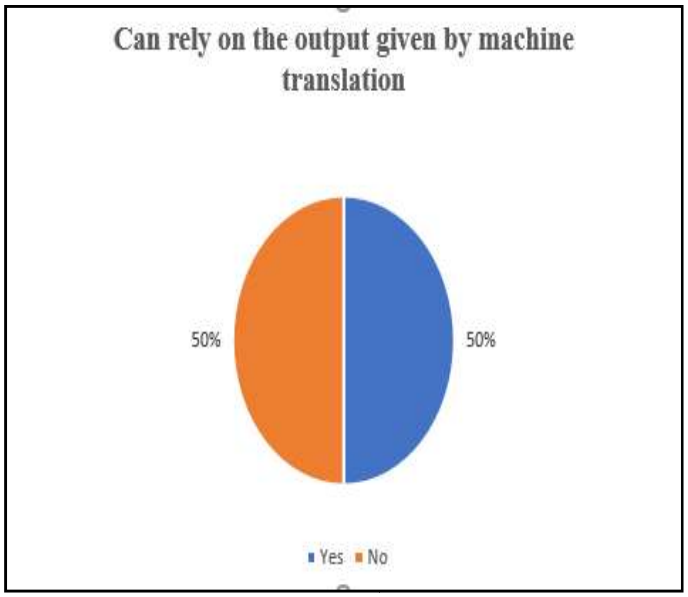
Capability of choosing the correct word

More than half of the respondents (79%) believe that machine translation has no capability of choosing the correct word that goes with the source text. Only 3 translators (21%) believe that machine translation has no capability of choosing the correct word that goes with the source text.



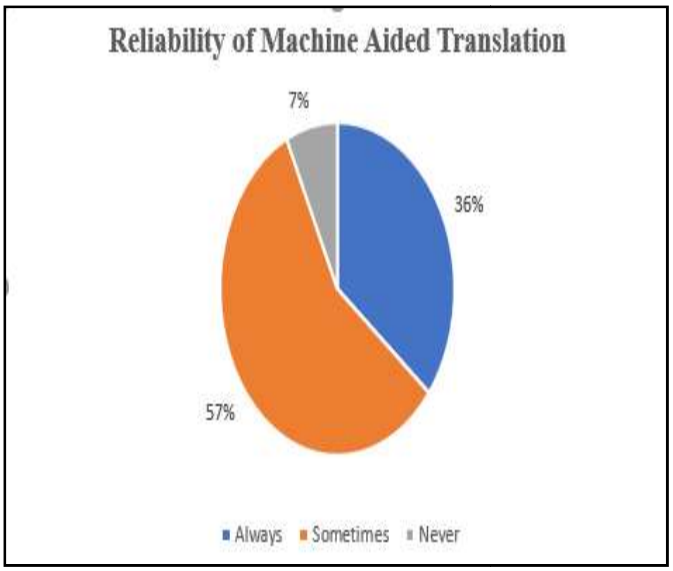
Can the translator rely on the output given by machine translation?

All the respondents equally believe that machine translation never gives a output and cannot rely on the output given by the machine and sometimes they can rely on the output given by machine. No translator has ticked that they can always rely on the output given by machine translation.



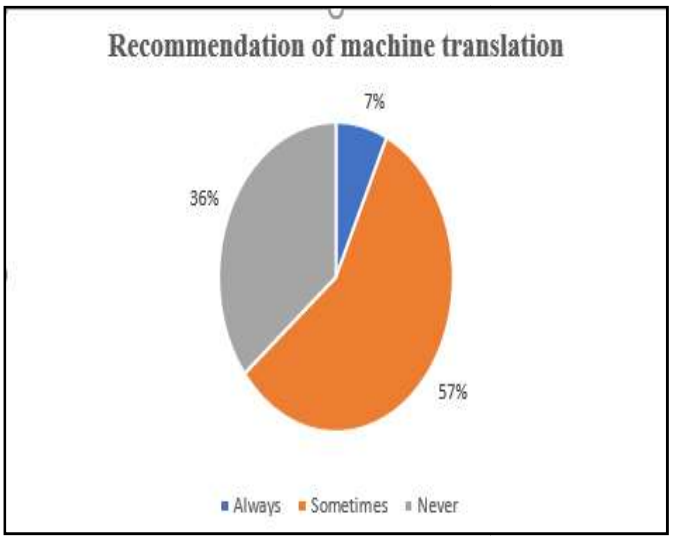
Reliability of Machine Aided Translation

Among all the 14 respondents, eight (57%) believe that translator can rely on the reliability of machine aided translation and five of them (36%) believe that they can always rely on the machine aided translation while only one (7%) translator believe it is not good to rely on machine aided translation.



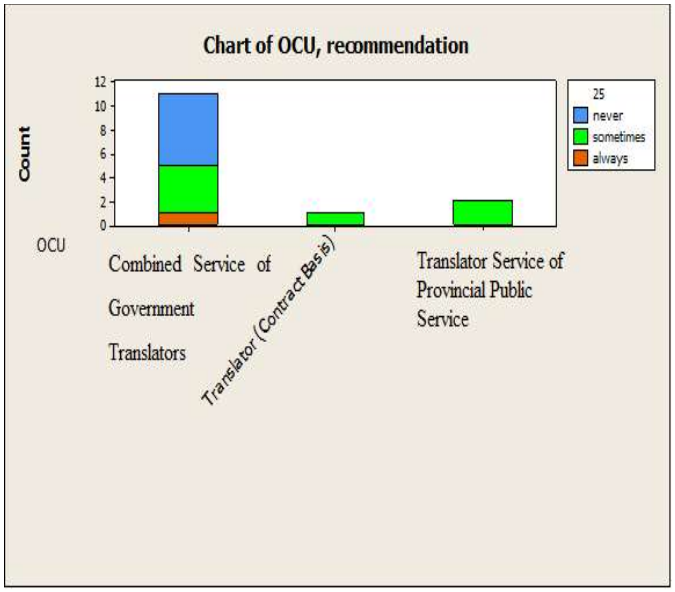
Recommendation of machine translation for the translation process

Among 14 respondents eight (57%) of them recommend machine aided translation in certain instances and five (36%) of them always recommend machine aided translation for the government translators and five of them have (7%) never recommend machine aided translation for the translation process.



Recommendation of machine aided translation with comparison to type of translation service.

Among 11 translators in the combined service of government translators, 6 (55%) of them are never recommend machine translation for government translators, 4 (36%) of them recommend machine translation depend on certain instances and based on different documents and only 1 (9%) always recommend machine translation for government translators.



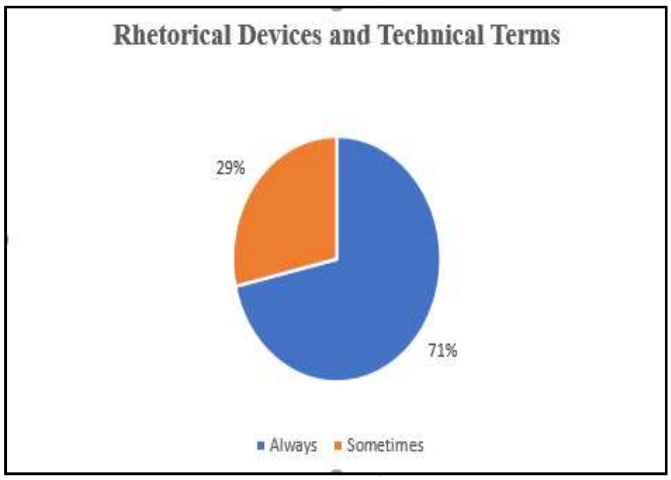
Rhetorical Devices and Technical Terms

More than half (10) respondents or 72% of respondents are claiming that rhetorical devices and technical terms can be translated accurately with machine aided translation and four of them (28%) claim that machine aided translation will translate rhetorical devices and technical terms "sometimes" accurately.

Terminology Management Systems

Helpfulness Terminology Management Systems

Majority of the sample (93%) totaling for 13 respondents agree with the fact that having a terminology management system specific for each government institution is helpful and only one respondent (7%) is not agreeing with the fact that Terminology Management Systems are helpful.



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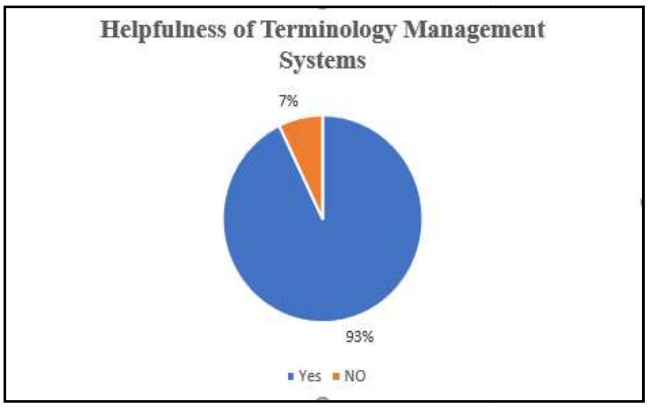


Importance of Terminology Management Systems

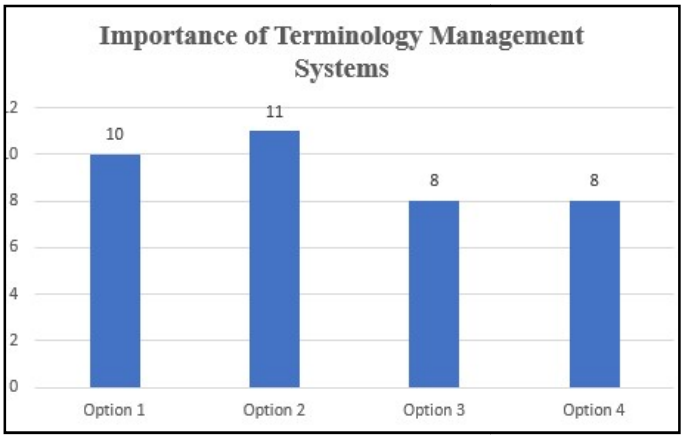
All the respondents were given chance to tick any number of options from the options provided and options are as follows.

Option 1: Ensures consistency throughout the document

Option 2: Saves time

Option 3: Manage terminology and translation in one place

Option 4: As the corresponding target terms can then easily be inserted into the translation



Option 1 has been clicked 10 times and that scores 27%. Option has been clicked 11 times and it scores 30%. Option 3 and 4 has been ticked 8 times and it scores 22%.

Electronic Dictionaries

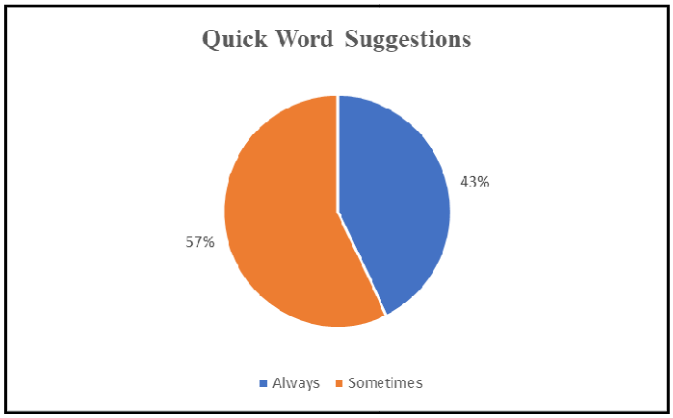
Usage of Electronic Dictionaries

Usage of Electronic Dictionaries			
	Non-Electronic Dictionaries	Electronic Dictionaries	Both
Count	0	0	14
Percentage	0%	0%	100%

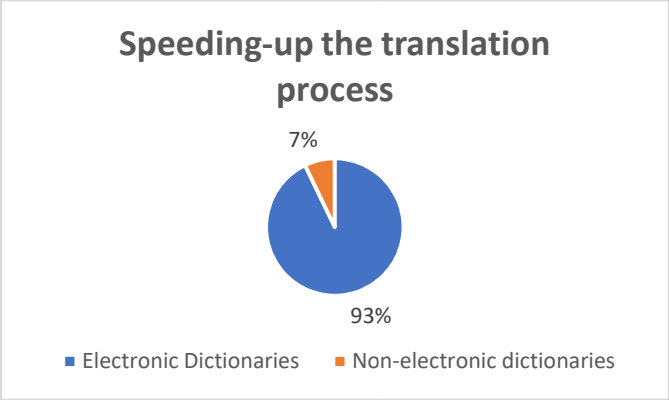
Both Electronic and Non-electronic dictionaries are frequently used by all the translators when they are come across with an unknown term. When coming across an unknown term, all the respondents are said to be using both non-electronic and electronic dictionaries because of the following factors. Sometimes certain words cannot be found in the electronic dictionaries. Sometimes the non-electronic dictionaries should be used to check the usage of certain words to get the specific meaning of them. Also, they say that results from both electrical and non-electrical devices vary at times. Along with that, they say that they can't always depend on electronic sources. On the other hand, non-electronic dictionaries are prepared by intellectuals. Sometimes electronic dictionaries do not provide the exact word. So that, it is necessary to look into the non-electronic dictionaries in order to translate and provide a quality output. Another reason is that it saves time and more accurate. This is because the user-friendly nature in electronic dictionaries. If the checked term is not available, then the printed dictionaries should be referred to ensure the accuracy. Therefore, they are using both the dictionaries depending on the situation.

Quick word suggestions

To the question on will electronic dictionaries provide you with quick word suggestions to be complied with the context, 8 respondents (57%) have selected that electronic dictionaries are sometime providing quick word suggestions and 6 respondents (43%) have selected that electronic dictionaries are always provided with quick word suggestions to comply with the context.



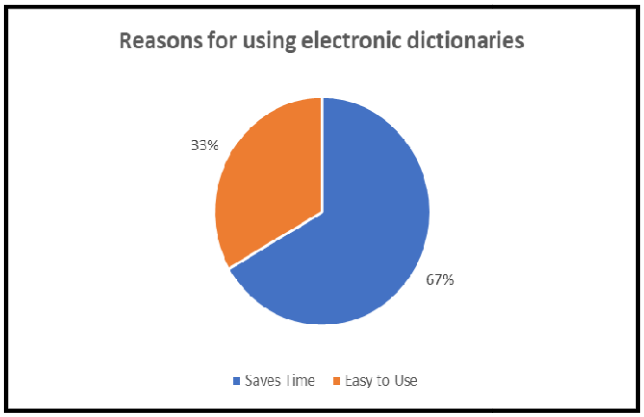
Speeding-up the translation process



More than half of the respondents think that not always the electronic dictionaries would provide them with quick word suggestions to be comply with the context when compared with the non-electronic dictionaries. Majority of the respondents obey to the fact that electronic dictionaries speed up their translation activity as in the above table. 93% of the respondents prefer electronic dictionaries over non electronic versions when they need to speed up their translation activity. This is mainly because it is quick to search words through electronic dictionaries when compared to non-electronic dictionaries. Only one respondent (7%) has selected that non-electronic dictionaries are speeding up the translation process over electronic dictionaries.

Reasons for using Electronic Dictionaries

Translators mainly use EDs mainly to save time and its easiness to use.

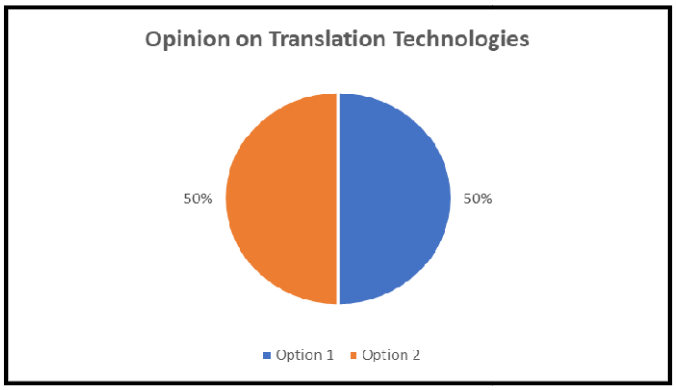


Translators opinion on translation technologies

In order to obtain the translators opinion on translation technologies with their experience the translator was provided with two options as,

Option 1: It is crucial to have translation technologies to obtain a quality output

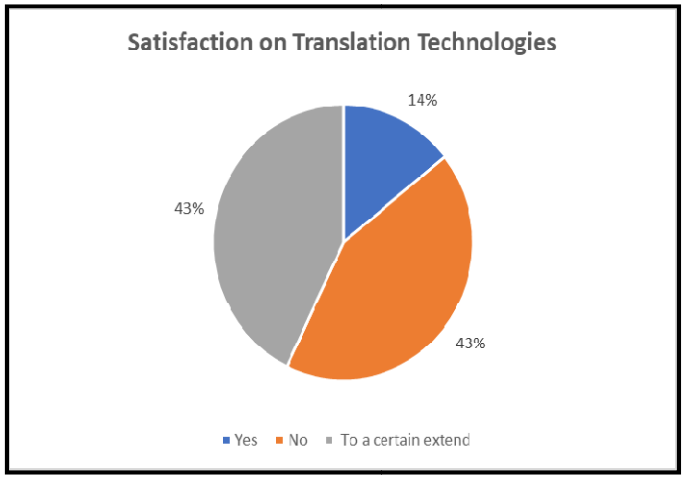
Option 2: It is not important to have translation technologies to obtain a quality output since human brain is responsible to give a quality output without doing any mistranslations.



They express that it is crucial to have translation technologies to obtain a quality output. At the same time, they express that it is not important to have translation technologies to obtain a quality output since human brain is responsible to give a quality output without doing any mistranslations and both the answers are equally picked.

Satisfaction on the amount of translation technologies provided

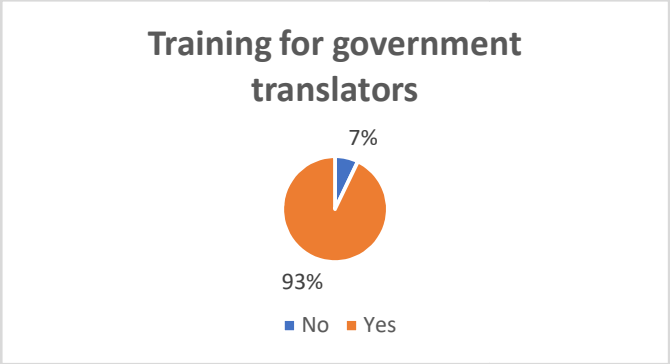
Among all the 14 respondents, 43% of them are equally not satisfied and satisfied to a certain extend with the amount of technology provided and 14% of them are satisfied with the amount of technology provided and they expect the government to provide them with more technology than what they have received now.

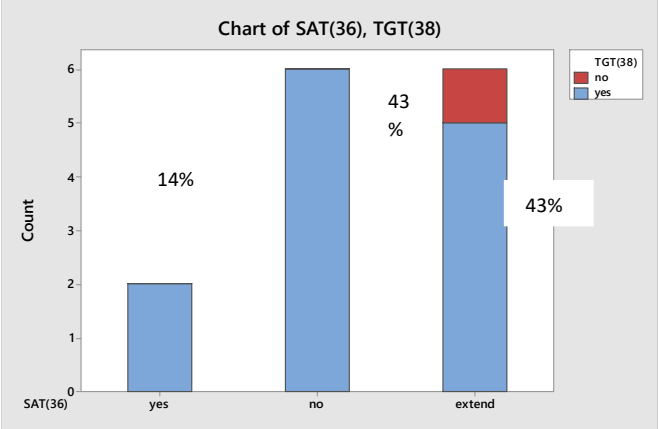


Among 43% of respondents who have stated that they are not satisfied with the amount of technology they have provided, have stated that they are not provided with internet facility even to download electronic dictionary apps or to surf electronic dictionaries which are in the internet, which is considered to be the least considered amount of technology in the field of transalation. Some of the translators have not provided with any of the facilities which are necessary for translators and only provided with a chair, desk and a piece of paper. On the other hand, translators in the field have no expertise in working with technology. Service minute of translators have not been modified and they suggest that more training on all the translation technologies including priority given to CAT Tools should be undertaken and all the translators should be given with packages related to translation technologies including CAT tool with the expense of government.

Training for government translators

More than half of the respondents believe that a training on translation technologies for government translators is essential and only 7% believe that it is not necessary to have a training on translation technologies.

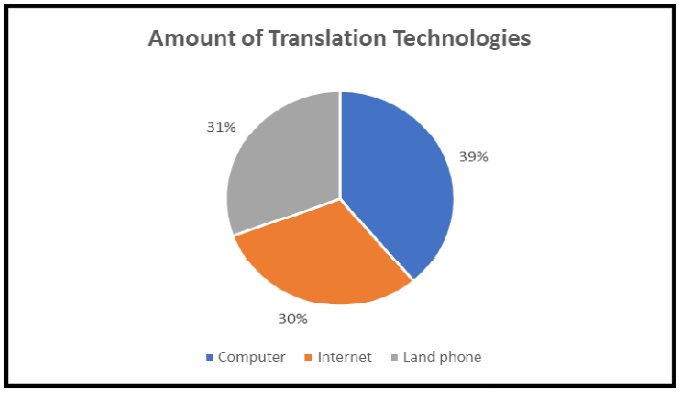




Majority of the respondents think a training for government translators on Translation Technologies is essential. Respondent who partially satisfied with the amount of technology provided by the government might respond that training for government translators on Translation Technologies are not essential.

Translation Technologies provided in the working environment

It was asked the respondents to state the technologies that the translators are provided with in their working environment and all the respondents were limited to internet facility, telephone line and a personal computer and it is the mostly provided facility. All the respondents were asked to state any amount technology they are provided with and no respondent stated about CAT tools, electronic dictionaries, machine translation facilities or termbases.



Here, all the respondents think that a training for the government translators is essential and the provided translation technologies by the government are computers, telephones and the Internet facility.

For the question why do you think the technology provided by government is not sufficient, the respondents have specified that, the respondents see it as the negligence of the government and there is no recognition for the translation service and related technologies. Also, another aspect is that the government might have to incur huge expenditures upon this process. Furthermore, the government might think that translation service is a supportive service which can be obtained from any person available in working premises. This is highlighted in the case where they think that when a translator appointed to the position, he/she should already have all expertise to translate and therefore no need of providing technologies. Hence, as a result of these reasons, government may not be providing the sufficient technology for translators.

IV. CONCLUSION

CAT tools have a positive impact on the quality of the final output given by the translator. When talking about CAT tools, many translators are not aware of CAT tools. Among all the few translators who are cognizant of CAT tools believe that CAT tools are beneficial for the translators and most of the respondents believe that the possibility of obtaining identical format in the target text to go with the format of the source text is advantageous. Most of the respondents use CAT tools as this let them to translate any different file formats without having to use their source applications, as it stores and manages the translation, as it provides Translation Memories, Auto translation of repetitions, suggestions of similar translation and terminology, as it keeps the translation more accurate and as it gives easy recognition of omitted numbers, forgotten translations inconsistency and formatting. As it gives access to online and offline resources such as dictionaries and reference material, as it gives predictions of the word the translator types (Predictive Typing), as it automatically checking for grammar and spelling, as it prevents writers from using inconsistent terminology, highlights common errors and produces standardized output translators find this CAT tools helpful and most of the translators use smartCAT and SDL trados studio as CAT tool. According to this it summarizes that using CAT tools will enhance the quality of final translation.

When it comes to the machine translation and machine aided translation, machine translation has a negative impact on the quality of output given by translators and machine aided translation has a positive impact for the quality of final output of the translator. Most of the translators believe that machine translation will not make the translation work fast, better profitable or reliable since the output given by the machine has to be modified by the translator and it will double the work which takes much time and will make the work messy. When a translator comes across with an unknown term or

unknown word structures, they take help from machine translation to get the correct meaning after considering the type of the word or sentence structure. According to the findings of the machine translation more of the respondents believe that machine translation is a substitution of words in the source text from the words in the target text and most of the respondents believe that machine has no capability of choosing the correct word to comply with the context of the text. Translators won't recommend machine translation for other government translators. Translators are relying on the output given by machine translation with the human involvement to modify the machine generated output. Translators believe that rhetorical devices such as simile, metaphors, idioms, alliterations, assonance can be successfully translated with machine aided translation.

Terminology Management Systems have a positive impact on the quality of final translation. Translators believe that terminology management systems are helpful to gain a high-quality output. As it ensures consistency throughout the document, as it saves time, manages terminology and translation in one place, as the corresponding target terms can then easily be inserted into the translation will enhance the quality.

Electronic dictionaries have positive relationship with the final quality of the translation. All the translators use both the electronic and non-electronic dictionaries and it speeds up the translation process. When translators want to get quick word suggestions they go for electronic dictionaries. All the translators use electronic dictionaries either to save time or since it is easy to use with compared to non-electronic dictionaries.

Translators equally believe that availability of translation technology is crucial to obtain a quality output and at the same time they state that it is not important to have translation technologies and human brain is the key to obtain a quality output. Translators are not satisfied with the amount of technology given to them by the government and they agree to the fact that training for government translators on translation technologies are important since they are only provided with a computer, land phone and internet facility. At last, it was observed and noted that the amount of translation technologies received for translators in the provincial public service is very limited. They are confined to a bundle of papers with some stationaries but the translators who serve in the government sector as "translators in the combined service" have more exposure to the translation technologies when compared to the translators in the provincial public service.

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