

An Empirical Research on Current Status and Developmental Countermeasures of Language Services Industry in China

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ABSTRACT

This paper uses Delphi Method and statistics provided by the State Administration of Market Regulation of China, attempts to develop the scale index of language service industry in China. Coupled with practical investigation and theoretical framework of SCP paradigm, a deep analysis on market behavior, market structure, and market performance of the industry have been explored. First, the study indicates that the scale index of Chinese language services industry has experienced an upward trend from 10.481million RMB in 2008 to 351.403 million RMB in 2017. Second, majority of language services enterprises are situated in Chinese coastal provinces and there are variations in demand for language services. Third, the standardization of language services are minimal while most of the talents involve a single discipline background. Fourth, most enterprises utilize language tools while there is lack of technological innovation for utilization of language resources and enhancement of service quality. The author mainly suggests four strategies which include: cultivating multilingual services, strengthening the development of industrial informatization and technical innovation, and optimizing the industrial talents structure while also adjusting for industrial distribution and regional coordination, which propose the meaningful implications for the development of language service industry in China.

Key words: Chinese Language Services Industry, Present Status, Developmental Countermeasures.

1. INTRODUCTION

With the rapid development of informatization and globalization, there is an urgent demand for translation and multilingual information, which makes language services industry become an emerging service format. Western countries, such as U.S.A, Britain, Canada and Australia have already not only designed national planning for the language development, but also issued relative laws and decrees to

strongly support the development of language services industry as well as talents training. The global language services industry was worth approximately 40.3 billion U.S. dollars in 2016. Over the next four years it was forecasted to experience a growth of five billion U.S. dollars, reaching 45 billion in 2020. Over half of the language services market was accounted for by Europe. North America was the second largest market at 34.82 percent, with a market size of just under 17.4 billion U.S. dollars expected for 2019. It can be seen that language services industry has brought large amount of benefits to the world, especially in Europe and North America. The improvement of language services is closely related to the enhancement of national power. For instance, 2005 saw the publication of Defense Language Transformation Roadmap in America,

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which is designed for improving linguistic ability of military personnel. “Korean government should attach great importance to the policy making of public language” [1] as Myung-Hee Kim proposed in *A Plain Language Institutionalized in the U.S. and Implications for Korea*.

In China, although language industry is still an infant industry, its close relationship with economic development and national security calls for strategy planning, policy-making and industrial management. According to the *Development of Chinese Language Services Industry* issued by Translators Association of China (TAC) on Dec.19, 2018, there are still some problems unsolved for the development of language services industry, such as what are these problems? How serious they are? How to deal with these problems? What’s the relationship between language services industry and economic development? while few scholars pay attention to those problems.

This paper, based on the investigation of 451 language services organizations, aims to find under what circumstances the language services industry develops, focusing on how the government policy, economic development level, geographic position, and technology development affect its development. Meanwhile, problems including imbalance between the supply and demand of language services, absence of service standardization, inappropriate curriculum setting of training organizations and unreasonable talent structure are deeply studied. Finally, the author puts forward four strategies for improving the development of language services industry in China: cultivating multilingual service, strengthening the construction of industrial informatization and technical innovation, and optimizing the structure of industrial talents as well as adjusting industrial distribution and regional coordination.

2. WHAT IS LANGUAGE SERVICES INDUSTRY?

As an emerging service industry, there is no exact definition of language services industry at home and abroad. Directorate-General for Translation(2009) published *Study on the Size of the Language Industry in the EU(2009)*, in which language services industry was divided into the following categories: translation(traditional translation, technical translation and literature translation), interpretation(conference interpreting, telephone interpreting and public service interpreting), subtitle and dubbing, software localization and website globalization, language technology tools, language teaching. Common Sense Advisory Inc., a well-known research agent of language services regularly released *Report of Language Market Development (2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017)*, which analyzed development and trend of global language services industry and also considered that language services industry contained three categories, namely, translation and interpretation, localization and technical service. Language Industry Association(2012) regarded translation, language training, language technology (machine translation, content management, speech processing and online language learning) as the main parts of language services industry. Chinese scholar Guo Xiaoyong(2010) in *China International*

Language Services Industry Conference firstly put forward the definition of language services: “it mainly focuses on translation service, localization service, language technology, language learning and teaching, language consulting” [2]. Therefore, based on opinions from some authorities and experts, language services industry is defined as the integration of the following three aspects: first, traditional interpretation, translation, subtitle translation and dubbing service; second, localization combined with information technology (software localization and website localization), language technology and tools cultivation (speech processing, speech image conversion, machines translation, machine aided translation, language services management system), language capital management (language database and term bank). Third, globalization and localization service.

So far, there’s no administrative department taking in charge of language services industry in China, but heads of the state and ministries frequently take part in forums and conferences concerning to language services industry, which shows that the government has been keeping a close look on the development of language services industry. In 2008, Vice Premier of the State Han Zheng showed up in FIT (the International Federation of Translators) World Congress held in Shanghai; Ex-minister of Education Yuan Guireng hosted the opening ceremony of 2014 World Language Congress; In recent years, several forums and congresses have been organized. For example, “Beijing Language and Culture Expo(2017, 2018)”, “Construction of Discourse and Language services Development under ‘One Belt and One Road’(2017)”, “Chinese International Language Services Industry Conference”(2010, 2013, 2016), “Chinese Language Industry Forum(2012)”, most of which have got support from governmental departments, such as State Language Commission, Ministry of Commerce, and Ministry of Education.

2010 saw the foundation of “Research Institute of Beijing Language Industry”, which was supported by Beijing Language Committee. It has been eight years since its foundation and abundant research outcomes have been produced. On April 28, 2018, it was officially renamed into “Research Institute of Chinese Language Industry”. Tian Lixin, the Director of Pragmatics Department of Education Ministry has pointed out that the achievement made by the institute during last eight years is of great significance, and he also expects the institute to give itself a full play and reach a new high level in the future.

3. LANGUAGE SERVICES INDUSTRY FROM THE PERSPECTIVE OF LINGUISTICS AND ECONOMICS

In China, researches on language services industry mainly appear in papers of studies on pragmatics, practical linguistics and social linguistics, which focus on protection and utilization of traditional language resources, exchange on language and culture, and language policy. Also there are some articles on translation service and management, exploring its socialization and specialization as well as talents training. Yang Xiaohua(2011) said that translation is a social activity, which should be studied under the guidance of sociology, taking

language services industry as an example [3]. Si Xianzhu(2014) demonstrated that for a healthy and sustainable development of China's translation industry, efforts should be made to clarify its industry positioning, to raise its level of clustering development, to strengthen its industry-oriented research, and to improve its personnel training as well [4]. Mo Aiping, Hao Junjie and Wu Di(2014) stated that industrialization has changed translation largely from a personal endeavor to an organized industry. As the core of transformation, industrialization makes it possible for translation to become a pillar industry of language service and one of the most effective means in the realization of the strategic plan of Chinese culture 'going global' [5]. Liu Heping(2014) pointed out cooperation among administrative authorities, businesses, universities and research institutions need to be strengthened to cultivate professionals for language industry [6]. Mu Lei (2013) proposed to establish Doctor of Translation and Interpreting (DIT) [7].

As the economical values that language services industry has created is more and more obvious, there has been an increasing amount of researches on language services and language economy in China. He Zhihong(2012) reviewed the reasons why China's language industry has begun to attract much more attention, firstly, language is impelling the development of economy and culture; secondly, multilingual ability is being more and more important; thirdly, the cultural position of Chinese language is rising; fourthly, lingual technology promotes language industry [8]. Huang Shaoan and Su Jian (2011) demonstrated the influence of economic development on language position and language evolution [9]. He Lin and Zhang Lijuan(2017) referred the economic function of language has its own way of realization. It acts on economic activities at different levels as communicative tool, thinking tool, cognitive tool, cultural system, and economic resource, which is conducive to benefits creation [10]. Zhao Shiju and Ge Xinyu(2017) discussed the dimension and perspective of language economics, specifically including the its own problems of language with economic theories and approaches, the application of language and relationship between language and economics [11].

In western countries, the researches mainly concentrate on the economic values of the language services industry. Form the very beginning, it is universally claimed that Andre Martinet and Gorge Kingsley Zipf firstly set the principle of "language economy", which means a maximum amount of information should be conveyed with the least number of words. Jacob Marschak is the first economist who takes language services industry as the research object. In 1965, he regarded that "there is a close interaction between language and economy, which highlighted the role language plays in human being's economic activities. Language is featured with economic cost, utility, value and benefit" [12]. Whitney (1971) had coined the term 'the principle of economy' [13]. From 1980s, many scholars began to pay attention to the relationship between linguistic capability and labor income (Grenier and Vaillancourt, 1983; McManus et al, 1983) [14]. With the development of globalization of economy, society and culture, sociologists and linguists shifted to the influence of language on immigrant groups and transnational corporations(Grin,

2003) [15]. Deirdre McCloskey(1985) considered that rhetoric is the lingual economics, focuses on the resource distribution when people's desire can not be satisfied [16]. Barry Chiswick(2009) studied the relationship between lingual capability and labor income [17]. Drye(2013) analyzed the structural frame of world language industry [18]. Keith Chen(2013) made a systematic research on the influence of grammatical construction on the human beings' economic behavior, found that there is close relationship between language that do not distinguish future tense and language users' tendency of saving habit [19].

From the above demonstration, it can be seen that present studies on language services industry are still at the previous stage in China, and what most scholars focus on is still at the theoretical levels while a few use statistics to have a practical view of the industry. Foreign scholars, from multiple angles, have studies on language services industry, but due to the geographic and other reasons, they basically have no idea about the industrial development in China. This paper, aims to have a factual and deep view into the development of language services industry through large-scale survey, and finally puts forward several strategies for promoting its development and also its contribution to Chinese economic development.

4. EMPIRICAL RESEARCH DESIGN

This paper, through the overall investigation and empirical study, tries to construct the scale index of language services industry in China and find present status of its development.

Step one: the study constructs the scale of language services industry in China. Generally, registered capital of enterprises can reflect the scale of the industry. Different types of enterprises make different contributions to the industry development. While using registered capital as accounting index, the type difference should be taken into consideration. Two hypotheses are stated as follows:

Hypothesis 1: Contributions made by different types of language services enterprises to the industry are different.

Hypothesis 2: Registered capital of language services enterprises can reflect the scale of the industry.

Three questions have to be answered according to the above hypotheses. (1)Do different types of language services enterprises differ in the average registered capital? (2) Can registered capital reflect the scale of language services industry? (3) How to calculate the contributions that different types of language services enterprises make to the industry? We divide the enterprises into three types according to the ownership of the assets: namely, private enterprises, state-owned enterprises and foreign-funded enterprises.

In order to have a general view of the scale of Chinese language services industry, the original statistics were collected from State Administration for Market Regulation. Based on Delphi Method, ten industry experts were invited to forecast and grade the economic contribution rate of state-owned enterprises, private enterprises and foreign-funded enterprises independently for three rounds based on their personal judgments. During the first round, the interviewer had a deep discussion with those experts on the index of language services

and its background information, which was to be supportive for their first grading. And after the first round, the average value of first grading was collected and given back to the experts for second grading. The grading round was repeated for three times. At the fourth round, the contribution rate had been forecasted by all experts was fixed. The contribution of different types of language service enterprises to the language service industry is measured by the proportion of the contribution of registered capital per unit to the output value.

Step two: the study investigated four related parties of language services, including the demand-side of language services (the clients and consumers), the supply-side of language services (mainly includes three types enterprises according to the ownership of the assets), talents training organizations for language services especially universities, and the practitioners for language services. These four parties are connected to each other and construct the ecological chain of language services industry. For the demand-side, their requirements were mainly learned. For the supply-side, much attention was paid to the market of language services, talent demand, the cultivation and application of technology and the criteria of the industry. For the training organizations, the curriculum setting, faculty construction, students' practice and employment situation were analyzed. For the practitioners, their qualification, their views about the industry and how people assess them were mostly evaluated. Three research methods were adopted, namely, questionnaire survey, symposium and depth interview.

Method 1: For quantitative research, four questionnaires directed against respective parties mentioned above were designed. Questionnaires were collected through telephone and internet. A total of 500 questionnaires were distributed, and 462 were returned (the return rate is 92%), of which 451 were valid and 11 were invalid, as shown in Table 1:

Table 1. Implementation of the questionnaires

Type of questionnaire	Valid sample
The supply-side(enterprises)	190
Talents education(universities)	36
The demand side(government and enterprises)	45
The practitioner(individuals)	180
Total	451

Method 2: Symposium. It consisted of conferences for college teachers, seminar for managers of enterprises, and experts meeting. The themes of conferences were talents cultivation and development of language services enterprises, discussing the range of language services industry and its problems and main developmental trend.

Method 3: Depth interview (unstructured interviews). It took for forty to sixty minutes with one-for-one model, which was much more flexible and relaxing for interviewees. Thirty experts from language services enterprises, translation colleges and language services demanders were invited to be

interviewed, which helped to collect their predictions for the future development of the industry.

Step three: Based on the results from the above investigation, the SCP analytical method(Bain, 1968) [20] was adopted to analyze the industry development, which mainly focused on the market structure, market conduct, market performance as stated below, and then countermeasures for developing language services industry were suggested. SCP model is a traditional analytical framework of Industrial Organization theory, of which the connotation is that the specific market environment determines the market structure, the market structure determines the market conduct of enterprises, and the market conduct of enterprises further determines the market performance. The three facets interact with each other.

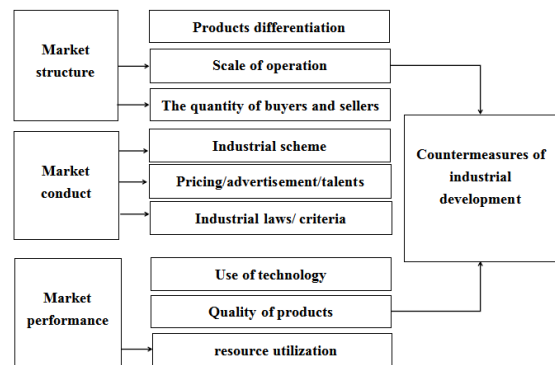


Fig. 1. SCP analysis of language services industry

Through SCP analysis of language services industry, the study diagnoses the current shortage of the development of industry from the perspectives of power mechanism, market characteristics, spatial distribution and organization development, innovates on industrial specialization and ecosystem, and then reveals the trend of language services industry and its development optimization.

5. RESULT AND DISCUSSION

According to the investigation, it can be seen that since the policy of Open and Reform from the year of 1978 in China, the language services industry has expanded rapidly. The standardization of the industry has reached to a new level, talents cultivation and evaluation systems have been improved under the coordinated efforts from the government, enterprises and training organizations, while problems can still not be neglected.

5.1 Construction of scale index of language services industry in China

There has been a few amount of investigation about the overall development of language services industry in China. Compared to the qualitative researches, quantitative studies are much less. In this paper, based on the statistics from State Administration for Market Regulation, scale index of language services industry per year is worked out. And also the comparison is made each year to examine the reasons why

there's fluctuation of the scale index for better understanding of the laws of industrial development in China.

Table 2. Types of language services enterprises from 2008-2017(unit: ten thousand RMB)

Type of enterprises	Quantity of enterprises	Registered capital of enterprises	Average capital of enterprises
Private	56,830	68,986,388	1,213.90
State-owned	312	256,145	820.98
Foreign-funded	858	907,722	1,057.95
Total	58,000	70,150,255	3,092.83

As is shown above, the private enterprises have the largest average registered capital amount, and foreign-funded enterprises rank the second, while the state-owned enterprises are in the third place. The gap among the three types exactly exists.

After several rounds of scoring and evaluation from industrial experts, the ratio of contribution made by private enterprise, state-owned enterprise and foreign-funded enterprise is counted to be 1:2.28:2.05. That is to say, the contribution of one state-owned language service enterprise to the language service industry is equivalent to that of 2.28 private language service enterprises, and the contribution of one foreign-funded enterprise to the language service industry is equivalent to that of 2.05 private language service enterprises. From a historical view, state-owned language services enterprises are the first batch of ones that serve Chinese foreign trade and foreign contact. The business scale is relatively large. While, those private enterprises are much smaller in size, according to Report of Chinese Language Industry in 2016, only 7.2% of private enterprises have more than 100 employees, and most of them are very small in size. For the foreign-funded enterprises, a large amount of them are branches of well-known overseas enterprises. Based on experts' evaluation and reason analysis, the scale index of language services industry per year can be calculated by the following formula:

$$LSC_i = \frac{PRC_i + 2.28 * SRC_i + 2.05 * FRC_i}{\sum_{i=1}^{10} (PRC_i + 2.28 * SRC_i + 2.05 * FRC_i)} * 10000$$

LSC_i represents the scale index of language services industry in the year of i, PRC_i represents registered capital of private enterprises in the year of i, SRC_i represents registered capital of state-owned enterprises in the year of i, and FRC_i represents registered capital of foreign-funded enterprises in the year of i. Denominator is the total registered capital of language services enterprises from year 2008 to year 2017. Due to small numerical value, the end value is multiplied by 10000. Then, based on the original data from the State Administration for Market Regulation, the scale index of language services

industry from 2008 to 2017 in China is worked out, as shown in Table 3:

Table 3. Scale index of language services industry from 2008-2017(unit: ten thousand RMB)

YEAR	PRC	SRC	FRC	LSC
2008	586,327	52,769	20,504	104.81
2009	945,031	9,878	8,094	137.78
2010	1,238,592	28,074	50,173	196.76
2011	1,468,595	6,004	58,769	224.38
2012	1,785,604	35,278	12,513	264.83
2013	2,810,279	22,385	86,536	425.40
2014	6,303,763	19,520	72,598	909.56
2015	13,204,314	23,600	172,352	1,905.53
2016	16,004,777	32,691	229,653	2,316.93
2017	24,639,106	25,946	196,530	3,514.03

From the above statistics, it can be seen that the scale index of Chinese language services industry has been showing an upward trend. In 2014, there was a great-leap- forward development. That is mainly because of "One Belt and One Road" initiative. Mutual exchange and communication between China and countries along "One Belt and One Road" needed to be realized through language services, which are fundamental, supportive and strategic during international cooperation. Therefore, language service was expanded rapidly at that year. Meanwhile, in 2015, the policy of "Mass Entrepreneurship and Innovation" has encouraged not only large-sized enterprises but also middle and small-sized enterprises, traditional industry as well as emerging industry, and also service industry and manufacturing industry to have common development. As small-sized enterprises are the dominating bodies of language services industry, thus, the industry has been facing with enormous opportunities and thus language services industry achieved great leapfrog development. With the globalization world economics, culture and society, it is expected that language service is going to expand in the future.

5.2 Market structure of language services industry

According to the data from State Administration for Market Regulation, from 2008 to 2017, the registered language services enterprises reached to a number of more than 58,000. The average revenue of Chinese language services enterprises in 2017 was 514.8 million RMB. Correspondingly, the industrial scale of language services industry was 298.6 billion RMB. Although the development of industry keeps at a high speed, different enterprises vary greatly in size.

The geological distribution of language services enterprises is unbalanced. Most of them are registered in Chinese coastal provinces, such as Peking, Shanghai, Guangdong, Jiangsu, Shandong, Zhejiang, where the internalization is much higher. There are a few language services enterprises registered in middle and western China.

For example, the number of translation enterprises in Peking and Shanghai accounts for 69.8% of the nation's total number. It is estimated that Beijing New Oriental School, a well-known language training organization in China, has accounted for 70% of the international tests training market with an annual enrollment of 450 thousands. It is mainly due to the openness degree and the level of economic development of the cities.

The business type of language services enterprises is mainly related to translation and interpretation, and diversification is the developmental trend. Other from translation, language capability training, language consultation, development of language technology, language information processing are also included as service formats. Ko Chang Su(2002) stated that "linguistic information industry is national core industry, which is worth investing" [21].

According to the research, influenced by the foreign trade and coordination, the consumption of language service is increasing, and the service areas involved are mainly about legal contracts, chemical energy, machine manufacturing, architecture and mining, traveling and transportation, and biology and pharmacy, as shown in Fig. 2. Certainly, "the more language services the enterprise provides the more positive feedback form consumers the enterprise gets" [22].

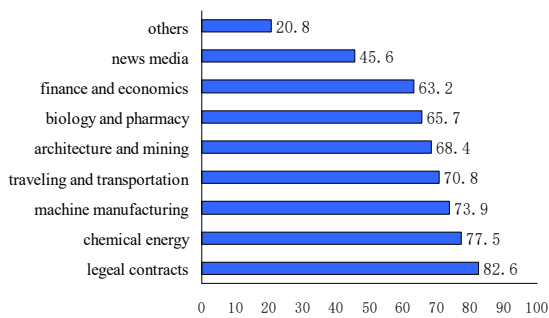


Fig. 2. Major businesses of language service(%)

5.3 Market conduct of language services industry

Although in some policy documents, it can be found guiding plans for language cause, such as Outline of the National Long-term Plan for the Reform and Development of the Spoken and Written languages(2012-2020) and the 13th Five-year Plan for the Development of the National Languages, there is no long-term unified development planning for language industry. Meanwhile, language services industry is difficult to be statistically calculated due to its absence from the industrial classification for national economic activities of China.

The relationship between language services industry and industry standardization is interactive and mutually facilitating. The more advanced the industry becomes, the more perfect the criteria is needed, which assures justice and scientific competitiveness of industry development. Standardization is the essential stage during the development of industry. There's no relevant certification of language services industry domestically. Standardization of language services in China is needed to be perfected. Most surveyed language services enterprises are accredited by ISO9000, ISO17100, EN15038, CMM (Capability Maturity Model for Software) or ASTM, as

listed in Fig. 3. According to the investigation, there are still 80.5% enterprises applying no quality certification, which occupies a large portion. Some of them think it is of no use to get accredited, which would lead to the low level of service.

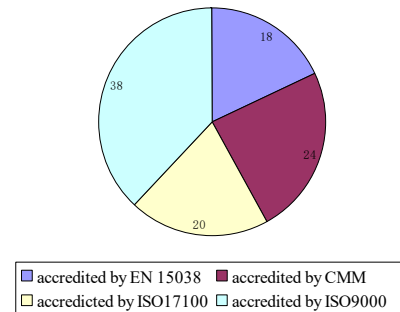


Fig. 3. Category of certification obtained(%)

As for the cultivation of language services talents, recently, the prosperous development of language services market has driven the development of translation education. Till 2018, the number of universities approved to establish Master of Interpreting and Translation (MIT) has reached a number of 246. Meanwhile, 272 universities have established Bachelor of Interpreting and Translation (BIT); the number of universities is expected to increase year by year. Applied translation education system is being improved constantly. Styles of occupation vary in forms, which mainly include translators and interpreters, technical coordinators and project managers. Therefore the cultivation and need for language services talents are much more diverse and multiple. However, according to the survey, 82% of MIT students are with scientific backgrounds of language and literature, only a few students have knowledge of science and technology, which is not compatible with the social needs for cross-subjects talents of language services. With regards to the curriculum setting, a majority of curriculum are related to translation abilities, such as translation skills, translation theory and practice, translation level tests. As is known to all, modern language services industry is knowledge-intensive industry with translation technology, information processing and marketing skills, while in most universities, there is a scarcity of translation technology courses.

According to the investigation, most of employees in language services enterprises are highly educated, while some of them do not think it is a well-paid job and there is little prospect of career development. Their average salary is from 5000RMB to 8000 RMB per month. It is not good for the sustainable development of the industry, and if the pay is such low, the problem of brain-drain would be more serious.

5.4 Market performance of language services industry

We are now in the era of cloud data and big data, which helps to improve the scale of language services industry and push the tide of language technology revolution. The language services industry is being featured by intellectualization, contextualization, visualization and integration. Machine translation plays an essential role in language services industry. According to the survey, for those enterprises providing

language services, the most used technology is CAT tools. Secondly used is Translation Quality Assurance tools, and the least used is translation trading platform and translation crowdsourcing platform. It can be seen that these two platforms get low penetration.

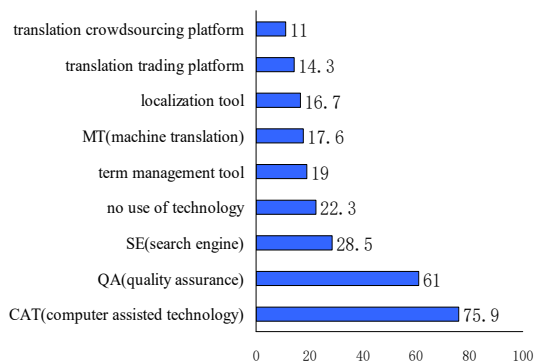


Fig. 4. Use of translation technology(%)

Except for language tools, the internet platform of language services which concentrates on resource-integrating and deal-matching is having great impact on the format of language services industry. In China, the construction of internet platform has been developed early, for example, Transn's "tBank" and "fanyi 365" acquired by Ali Baba. And the technology they have is close to what foreign platforms own, while their operation and marketing cannot match with foreign platforms, mainly lacking in international business regulations and credit system.

In terms of language resource utilization, from 2015, the State Language Committee has started the program of language resource protection, the activities of investigation, preservation and exhibition of language resource has been conducted. While much attention has been paid to the cultural communication function of language resources, and there's a neglect of its economic values, which leads to the low degree of industrialization. Therefore, the utilization ratio of language resources is relatively low.

6. CONCLUSION

As the above demonstrated, the language services industry has already been at the early stage of industrialization development and the type of business is showing itself a trend of diversification in China. There are regional differences of industrial development in China. A majority of language services enterprises are located in eastern China, but a few are in the middle and western areas. The type of language services industry includes language training, research and development of technology, language consultation, application of tools, linguistic information processing, and mainly involved areas are about chemical energy, machine manufacturing, legal contracts and traveling and transportation. For technical innovation, the technology of language services is being influenced by internet and information technology, but there is a lack of creative ability of industrial normalization

construction. Although some innovation has been acquired, overall, creative ability of enterprises is relatively weak, and the problems of repeated construction and homogeneity competition cannot be neglected. Besides, there is a correlation between the development of language services industry and standardization. The Europe and North America have been at the forefront of standardization of language services industry. Some progress have been achieved in industrial standardization in China, but compared to those countries advanced in language services industry, China still has a long way to go. For talents education, the cultivation and demand of language talents are much more diverse. While professional language services organizations and talents are still sorely lacking. The education ideology cannot match with the needs for applied and specialized talents. For the policy support, the position of language services industry is ambiguous and more policies and industrial planning are needed to be carried out. The related state policies have no preferential stipulations for language services industry and enterprises. On the other hand, if the policy is being absent for a long period, there would be no effective supervision over the industry, which is detrimental to its development.

In order to improve the development of language services industry in china, firstly, improving multilingual service. Closely combining the development of language services industry and foreign trade deployment, industrial structure and regional economic structure and transformation and upgrading of enterprises to find new economic growth point. Energetically developing new business model, such as cross-border electronic commerce and market procurement trade, and correspondingly driving the construction of language database, speech recognition, and machine translation to reversely offer language services for popular industry. With Chinese increasing economic interaction with India, Thailand and Vietnam, it is essential to strengthen language services to those countries according to multiple demand of foreign trade markets.

Secondly, enhancing informatization construction and technology innovation. Improving environment for industry development and constantly encouraging language services enterprises, talents training organizations and practitioners to make entrepreneurial innovation while applying new technologies to language services. Establishing database of cases from successful language services enterprises as the model for others' learning.

Thirdly, optimizing talent structure. Exploring education model integrating multiple power from industry, training organizations and research institutions to cultivate applied inter-disciplinary talents with multiple language abilities. Based on the markets demand, trying to train talents those can provide language services to countries alongside "One Belt and One Road", where minor languages are being used.

Fourthly, balancing industrial and regional development. Shortening the gap of opening-up degree between eastern and western China. Especially concentrating on the development of language services industry in western regions. Therefore, preferential policies about human resources, financial credit and others like, should be carried out to support language services enterprises there. According to local advantages and industrial deploying, respectively develop different types of

language services industry. For example, choosing to develop large-sized language services enterprises where biomedical industry has a better development, medium and small-sized language services enterprises where financial industry has a better development, and choosing to develop practitioners' cultivation where academic education industry is flourishing.

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