

The Overall Plan of the Internationalization Development of Chinese Journals and the Innovation of Digital Reform

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Abstract: China has become an influential country in science and technology. The internationalization of science and technology journals is an important embodiment of China's scientific and technological competitiveness and cultural soft power. It can not only show China's scientific and technological achievements to the world, but also promote international academic exchanges and cooperation, and promote scientific research and technological innovation in China and other countries. China will bring Chinese sci-tech journals into full play one by one, one belt, one road, one side, the other, and provide flexible export policies and channels for the sci-tech periodicals, accelerate the opening of our scientific journals, create the platform for publishing and spreading the international journals of science and technology, actively establish Chinese Sci-tech periodicals, vigorously translate and translate Chinese sci-tech periodicals, and strengthen the introduction and cultivation of the talents of international journals. From eight aspects of the operation and management of Chinese sci-tech periodicals, this paper puts forward the strategies and strategies for the internationalization of sci-tech periodicals in China, aiming at promoting the prosperity and development of sci-tech periodicals in China, and enhancing the competitiveness of science and technology and cultural soft power of China.

Keywords: Periodicals; Internationalization; Development planning; Digitization; Reform and innovation

1. Introduction

China has become an influential country in science and technology. As an important part of national scientific and technological competitiveness and cultural soft power, China's sci-tech periodicals are not only closely related to the country's social, economic and cultural development, but also an important part of the world's academic achievements, and an important part of human cultural heritage and knowledge wealth. In order to build a world-class sci-tech journal, we should not only tell the Chinese story to China, but also tell the Chinese story to the world. The internationalization of sci-tech journals is an important embodiment of China's scientific and technological competitiveness and cultural soft power. It can not only show China's scientific and technological achievements to the world, but also promote international academic exchanges and cooperation, and promote human scientific research and technological innovation. Therefore, it is necessary to establish cultural self-confidence, promote China's Sci-tech Journals to go abroad, and highlight the responsibilities and responsibilities of great powers in terms of science and technology and culture. In recent years, with the increasingly active international

academic exchanges, the barriers between China and international academic exchanges have been broken [1]. The main Foreign Sci-tech Journals and periodical databases have become the important collections of major libraries in China, and become an important channel for researchers to obtain information. International sci-tech journals have come into being, but it is still a long way to go for Chinese sci-tech Journals to go global. This is not only a matter of language, but also a failure to take the "going out" of sci-tech journals as a national strategy, no planning and layout from the top level, and no specific and feasible organization and implementation strategy has been designed. China's Chinese Sci-tech one has many problems in one belt, one road, one is open policy, the other is open, publishing and publishing platform, and the other is the establishment of Chinese periodicals, the translation of Chinese periodicals, the running of journals, the operation and management of periodicals [2]. China Association for science and technology has carried out the "plan to enhance the international influence of Chinese science and Technology Journals" for many years, which plays a very important role in promoting the internationalization of Chinese science and technology journals, but it does not adapt to the urgent needs

of the internationalization of scientific and technological journals in China. The "going out" of sci-tech journals should be regarded as a strategy and strategy for the internationalization of national sci-tech journals, which attracts the attention of the whole society.

2. Current Situation of Internationalization of Chinese Periodicals

Periodicals are not only an important part of science and technology, but also a part of publishing industry. The development of sci-tech periodical publishing industry reflects the level of national economy and science and technology development from one side, and is one of the important symbols of national independent innovation level of science and technology. Especially with the rapid development of information society and knowledge economy and the acceleration of economic globalization, as an important carrier of knowledge, sci-tech periodicals play an increasingly important role in promoting and improving the development of productive forces, and play an important role in China's knowledge innovation project; scientific and technological journals play an irreplaceable role in promoting the development of modern science and technology and scientific and technological progress [3]. In recent years, the foreign periodical industry has shown the development trend of internationalization, collectivization, networking, marketing, characteristic publishing and application of new technology. At present, the United States and European countries are still the most developed regions of periodicals in the world. In the United States, there are more than 56000 serial publications, 18000 corresponding to Chinese magazines, and more than 600 new magazines are launched each year. The largest periodical group in the world, France's birch & Philippe Publishing Group has 8359 journal employees and publishes about 220 kinds of periodicals. The group has set up offices in 34 countries around the world, and sells 340 million copies of magazines every year. It is the largest publisher in Europe with a total turnover of 2.4 billion euro. Among them, the most famous magazine is women's magazine, which was founded in 1945 and has been published in different languages in 36 countries and regions, with an annual circulation of 64 million copies. The development of journals in western countries is due to their unique publishing content and editing style, as well as their advanced advertising marketing concepts and scientific advertising operation mechanism. What's more, it is related to the economic operation environment and economic development level. To develop the publishing of science and technology journals in China is to implement the strategy of "rejuvenating the country through science and education" and sustainable development, Important strategic measures to promote scientific and technological innovation and progress. Since the reform and opening up, the number of

sci-tech periodicals in China has made great progress. As of May 1, 2005, China has published 5387 kinds of sci-tech periodicals (including military journals), accounting for 594% of the total number of journals. Some journals have formed a complete series of scientific and technological achievements, which can meet the needs of scientific and technological exchanges. In particular, since 1996, China has implemented the strategy of "controlling the quantity and improving the quality" of sci-tech periodicals, and the development of sci-tech journals has entered a new stage from quantity growth to quality improvement [4]. The academic quality, editing and publishing quality of sci-tech journals have been continuously improved, and the number of sci-tech journals included in the world-famous retrieval systems or databases is increasing. In terms of quantity, China has become a big publishing country of sci-tech periodicals in the world, but it is not a powerful publishing country of sci-tech periodicals.

This paper investigates the average number of self citation and other citation of international first-class journals and the range distribution of other citation rate. Limited by the limitation of paper length, we can only count and display the self citation and other citation rates of 265 journals by discipline [5]. The average citation rate of all the world-class journals reached 94.90%, and the highest one reached 99.92%, which means that the journal has less than one self citation per 100 citations; there are 40 journals with more than 99% citation rate, accounting for nearly one sixth of all journals. There are only 26 kinds of journals whose citation rate is lower than 80%, less than 10% of all the first-class journals. The lowest citation rate of journals is more than 50%, which is 53.09%. Obviously, these world-class journals have a wide range of functions and academic influence in the field of international scientific research. Their higher total citation frequency and impact factors come from their high-level journal papers, rather than relying on self citation to improve the impact factors.

Table 1. Self citation and other citation of China's top journals

Subject	Average self citation times	Average number of citations	Average other citation rate %
Geoscience	4245.29	1365.49	76.45
Engineering	6518.46	4684.59	80.12
Chemistry	2941.15	23503.46	88.46
Biology	2238.46	26482.14	90.24
mathematics	168.16	2684.46	87.12
Physics	5894.02	3058.32	88.63
comprehensive	5648.18	3064.59	92.44
total	27653.72	64843.05	93.16

The above table shows that the information input of journal papers has reached a high level, and the more information input, the more understanding and citation of pre-

vious research results and theories, the greater the amount of paper information. Among the seven disciplines, the number of citations per paper of engineering is the smallest, only 21, which is related to the practicality of engineering technology science; the most cited papers are biological journals, reaching 46. Scientific and technological periodicals are the carrier of culture. Chinese sci-tech periodicals play an important role in the aspect of cultural export. Over the years, we have imported many foreign sci-tech periodicals and databases, but the export and import of Chinese sci-tech periodicals and databases are still unbalanced, which is not commensurate with the status of China's science and technology power and scientific and technological journals [6]. Therefore, it is necessary to adjust and optimize the "going out" policy and fund support of China's sci-tech journals, and open flexible channels for them to "go global". Sci tech journals are the main carrier of scientific knowledge dissemination, exchange and storage, and the specific manifestation of the output of scientific research papers (scientific and technological achievements) of a country, It is also an important embodiment of the implementation of the knowledge innovation project, the strategy of rejuvenating the country through science and education, and the promotion of scientific and technological progress. It is also an important part or an important process of scientific research. As early as 1986, academician Lu Jiayi, then president of the Chinese Academy of Sciences, put forward the incisive conclusion that "in terms of scientific research, the work of scientific journals is both the leader and the tail of the dragon". The new laws, new technologies, new methods, new theories, new knowledge and new achievements created and discovered by human beings in scientific research activities can be widely spread, communicated, popularized and applied only when they are published in scientific and technological journals [7]. Finally, they are recognized by the society and transformed into productive forces, thus realizing knowledge innovation and the self value of scientific and technological workers. Another important function of sci-tech journals is academic guidance or guidance. Scientific and technological journals should not only convey the party's and state's scientific and technological principles, policies and key scientific research points, guide the research direction of scientific and technological personnel, but also guide the academic research direction of their own discipline or field, grasp the direction of academic research, and play an academic guiding role. Therefore, scientific journals are an important part of human scientific research activities.

With the development of science and technology, the division of disciplines is more and more obvious. Therefore, the discipline division of foreign academic journals is becoming more and more detailed, which has the trend of periodical publication. For example, Germany's

Springer publishing company established 27 new journals from 1997 to 1998, involving 29 subject subjects, all of which are highly professional journals. The collectivization and scale of foreign periodical publishing is the result of the development of market economy and the fierce global competition, because only by obtaining the scale can we occupy the market share. For example, the professional academic journals in the Netherlands are completely operated by publishers, and the publishers in the whole country have their own division of labor for professional academic journals in various fields, and the competition has reached a relatively balanced state. The essence of the collectivization and scale of foreign publishing industry is merger and reorganization and transnational operation [8]. At present, there is an obvious gap between the concept of running a journal in China and that in the world. In terms of the purpose and goal of running journals, many journals lacked the ambition to become international high-level journals at the beginning, which made us inferior to others in the initial stage and affected the long-term development of journals. In terms of marketing concept, the Chinese journal industry still retains a deep trace of planned economy, lacks basic work such as market research and reader database development, and ignores the research and development based on market demand information. The sales network terminals are either out of reach or give up to each other, which has become a "hard injury" restricting Chinese journals. Whether the concept of running Chinese journals is in line with the international standards is closely related to whether the editors in chief have an open consciousness [9]. At present, some journals, especially the chief editors of journals, are lack of open consciousness and international vision, which makes the journals in a closed development track, which directly restricts the survival and development of journals, let alone strengthen international cooperation and promote the internationalization process of journals. For example, one of the important standards for the inclusion of scientific Citation Index in China is the degree of internationalization of journals We should choose some representative journals with cross regional, cross-border and international cooperation. Among these journals, more than 80% are Chinese journals, while there are less than 200 in China among nearly 5000 domestic journals, and there are few in other languages. Most domestic journals use Chinese, and some journals do not even have Chinese abstracts, or Chinese abstracts do not meet the requirements of the international retrieval system, which seriously restricts the process of domestic journals going to the world.

3. The Overall Plan of the Internationalization Development of Chinese Periodicals

The important influence of international journals in the international scope is inseparable from its diversified

distribution channels and distribution scope. More and more users and readers are brought by the international publishing and distribution mode. There are two main forms of internationalization of journal editing and publishing. One is a science and technology journal edited and published by large-scale academic organizations such as societies, associations and research institutes, which has advantages and advantages in terms of professionalism and authority of scientific papers [10]. The purpose of most academic organizations to establish sci-tech journals is to introduce the latest progress, discoveries, inventions and new ideas of the development of science and technology in this field to its members, the whole scientific and technological circles and the society. These academic groups, which can edit, publish and issue scientific journals themselves, are usually large-scale and have members from all over the world. According to statistics, scientific journals edited and published by academic organizations account for 39% of the total number of academic journals in the United States and 35% of the total number of British scientific journals. When an academic group establishes a scientific journal, the expected orientation of the journal includes the scope of international communication, and the internationality of its members makes this expectation come true. For example, the American Institute of electrical and Electronic Engineers (IEEE) compiles more than 140 countries and regions in America, Europe, Asia and Oceania. More than two-thirds of them are professors, researchers and senior engineers. The Institute has edited and published nearly 80 kinds of scientific and technological journals, which are recognized by the world as the core journals of related disciplines and also in electrical technology [11]. The world's largest publisher of scientific journals. Among the 265 world-class journals selected by us, there are 25 sci-tech journals published by the society. This kind of world-renowned large academic groups ensure the effective concentration of the highest level of scientists and the highest quality of scientific papers in the world.

China's sci-tech periodicals can be divided into different levels and categories: according to the levels, there are national, systematic, professional and regional ones; according to the categories, there are academic, technical, popular science and other categories, and academic and technical journals can be further subdivided into different disciplines and specialties. Different journals have different conditions, different tasks and different positions, but all kinds of journals have their social value. Some high-level quality journals can try the road of internationalization, while most Chinese journals do not need to catch up with the trend; because their foothold is to serve the domestic grassroots workers. If they change to Chinese publishing, the grassroots readers will not understand, and foreigners will not read it, but the cart before the horse [12]. The internationalization of periodicals should

first serve the needs of the country and society, and should not damage the political and economic interests of the country and the nation. Secondly, we should establish different positioning according to the types and levels of periodicals, and we should not blindly pursue internationalization.

English is the language carrier of the internationalization of periodicals. At present, more than 1 / 4 of the publications in the world are published in China every year. Language problems have plagued many non English speaking countries. Some countries give up their own languages and turn to publishing in China, while others adopt a two legged approach. There are nearly 6000 kinds of sci-tech periodicals in China, and there are more than 200 kinds of Chinese periodicals. Therefore, facing the trend of internationalization, domestic and Chinese journals should have a clear division of labor and coordinated development [13]. The state should focus on creating a number of high-quality Chinese journals, take the international route, participate in the international competition, accept the challenge and test in the international torrent, and make them become the "international market brand" of China's sci-tech journals. Domestic Chinese journals should adopt the strategy of "based at home and expand international influence", focus on "display window board", pay attention to the arrangement of Chinese information in line with international standards, actively join various international databases, and facilitate foreign readers' reading and retrieval. This is the most effective way to attract the academic attention of international peers.

After hundreds of years of development, foreign sci-tech journals have realized group management, such as Elsevier, Springer, etc. These publishing groups have a large number of journals, clear objectives, proper layout, division of labor and cooperation, and fully realize market-oriented operation. At present, there are three main business models of sci-tech periodicals in China: one is a large number of journal editorial departments without independent legal status; the other is single or multi periodical magazines with independent legal person status; the third is a few group management organizations. At present, the malpractice of periodical management system and operation mechanism has seriously hindered the development process of periodical collectivization [14]. This decentralized management state is uncompetitive and disintegrates in the face of the encroachment of foreign publishing groups; Therefore, we must change our ideas, change the original loose alliance to the close interest union, and take the road of group operation and large-scale development, so as to realize the complementary advantages and effective allocation of resources. Group management is the only way out for the publication of Chinese sci-tech periodicals, which is decided by

domestic and foreign factors. It is not a choice, but a necessity.

In the 30 years since China's reform and opening up, great changes have taken place in various fields and brilliant achievements have been made. However, China's sci-tech journals have made no progress in the past few decades. They have spoken out to comply with the market economy, but they still adhere to the pattern of planned economy. The traditional management system and operation mechanism have seriously restricted the survival and development of Chinese sci-tech journals. In view of the problems faced by the internationalization of Chinese periodicals, we must readjust our thinking, reform boldly, grasp the times closely, formulate a series of forward-looking coping strategies, so as to realize the internationalization of Chinese periodicals and make China become a powerful periodical country rather than just a big periodical country. At present, the main measures to improve the impact of internationalization of Chinese journals are as follows:

As the organizer and leader of the journal, the editor in chief of the journal plays an important role in the survival and development of the journal. In today's information globalization, the chief editor must have a long-term vision, take the motherland and the world into consideration, and actively promote the internationalization process of journals. Before its name was changed, National Geographic of China was geographic knowledge. Its leaders, faced with the deteriorating popular science magazine relying on the education market, set their eyes on their overseas counterparts. Through imitation, they realized the commercialization transformation and became the first popular science magazine in China to export copyright to overseas countries, and expanded its business to other fields, making a valuable step on the cross media road A step forward[15]. Even fashion health, which has no international copyright cooperation, strives to operate internationally in terms of the content and form of the journal, serves the local community with an international perspective, and becomes a booming popular journal. It can be seen that in the transition period of Chinese periodical market from disorder to order, the first thing we need is to have an international perspective and a forward-looking goal, which is an important prerequisite for the successful internationalization of journals.

In order to keep up with the international standards, Chinese journals must be in line with the international standards in terms of language selection if they want to go to the world and have a real dialogue with the most advanced and representative journals in the world. English is the first common language in the world. In the current international cultural exchanges, English is the most commonly used language. It is not only beneficial to the exchange of periodicals, but also to the reading of readers

all over the world and the collection of international retrieval institutions. In order to reduce the obstacles in language communication, the state should encourage the organization of Chinese periodicals, especially some journals with great influence at home and abroad. Scientific and technological journals should also have Chinese abstracts. To do the above work well, we need the periodical workers to have good English level. In 2001, there were 4151 Chinese papers and 21724 Chinese papers in scie. Especially in the era of rapid development of the Internet, most of the information is transmitted through English. To get information, you can't always wait for others to translate for yourself, otherwise you will lose a lot of things. Whether we can express things with international standards accurately and fluently, and realize the dialogue with the international community, language generalization is the key. Zhiyin's practice in language habits is a beneficial exploration of the internationalization strategy of Chinese journals. At present, "bosom friend / overseas edition" market has begun to take shape, and intends to publish its own multilingual journals in major overseas countries when conditions are ripe, so as to achieve full localization in both content and form, and enter the mainstream market of world journal publishing. The publication of periodicals should conform to the international rules. The standardization of periodical article arrangement, the academic standardization of academic journals and the authority of retrieval system all play an important role in the internationalization of periodicals. The standardization of article arrangement is the basis for journals to go to the world, which is conducive to international exchange and retrieval of databases at home and abroad. The international system of units is the product of scientific and technological progress. At present, with the rapid development of science and technology, the communication between disciplines, regions and countries is becoming more and more frequent. The standardization of quantity and measurement unit has become an inevitable development trend. In the arrangement of journal articles, the international standards of quantity and unit must be carried out conscientiously. For example, the unit symbols, quantity symbols and mathematical symbols of formulas in the international system of units need not be translated. Chinese translation of Chinese names and place names should also be in line with international practice to avoid unnecessary trouble. As far as academic norms are concerned, anonymous peer review system should be implemented, which is not only to conform to international practice, but also to academic development. The implementation of anonymous peer review system has benefited the editorial department a lot and has been welcomed by many authors. In addition, the review of existing research results and the problems that must be noted when quoting other people's achievements must be followed in order to make excel-

lent articles. These details will not be repeated here. Fourth, to effectively control the publication delay, foreign journals attach great importance to the speed of information dissemination. Among the famous foreign journals, there are more weekly and express periodicals, while bimonthly and quarterly periodicals are rare.

Table 2. Information on the nationalization of Chinese Journals

Year of collection	Number of Chinese mainland journals	Number of databases
2010	2007	SCI
2012	2246	EI
2014	2460	SCI
2016	2688	SCI
2018	2849	Pub med/Medlin

The rise of weekly and express newspapers has significantly shortened the average time lag of articles. For example, the average time lag of papers in science is 16 weeks, and the important papers can be published in biochemistry in about 40 days, and the publishing cycle is faster and faster. If Chinese journals want to go to the world, we must fully realize these gaps with the development of foreign journals, and effectively control the publication delay. In fact, there is much room for improvement in many aspects of the journal from peer review to publication. For example, with the help of multimedia, optical fiber communication technology and information terminal technology, network publishing or online publishing network can be established to publish electronic publications, e-magazines, e-newspapers and other publications with both graphic and audio-visual content; and actively encourage authors to contribute online, discuss and revise online to save mailing time, so as to effectively reduce the publishing cycle, improve the timeliness and expand the source of contributions To attract a large number of excellent contributions and en-

hance the authority of the journal. In order to achieve this, we need the editors to be familiar with the computer and other things that mark the information economy era, really keep pace with the times and improve the international influence of Chinese journals. In addition, more monthly or weekly is also an effective way to control the publication delay. Fifthly, we should break through the bottleneck of the system as soon as possible. Facts have proved that whoever takes the lead in carrying out the system reform will radiate new vitality and vitality. In this regard, the state should introduce some new policies on the rectification and reform of periodicals, so as to give the periodical units greater autonomy in operation and alleviate the old and unreasonable ones

4. Empirical Analysis

Through the time distribution of the first publication of Chinese academic journals, we can clearly show and understand the vertical development of internationalization of Chinese academic journals. It can be seen from the figure that before 1950, China's academic journals had sprouted; however, from the 1950s to the 1970s, although the number of Chinese academic journals increased, the overall number was still small; Until the 1980s, influenced by the national reform and opening up policy and economic situation, the number of Chinese academic journals increased rapidly, and the degree of internationalization increased significantly. Generally speaking, in the 50 years before 2000, the number of Chinese academic journals founded in China totaled 209. During the period from 2000 to 2015, the number of newly founded Chinese academic journals reached 226, more than the number of the previous 50 years. Especially after 2010, the number of new Chinese academic journals reached 102.

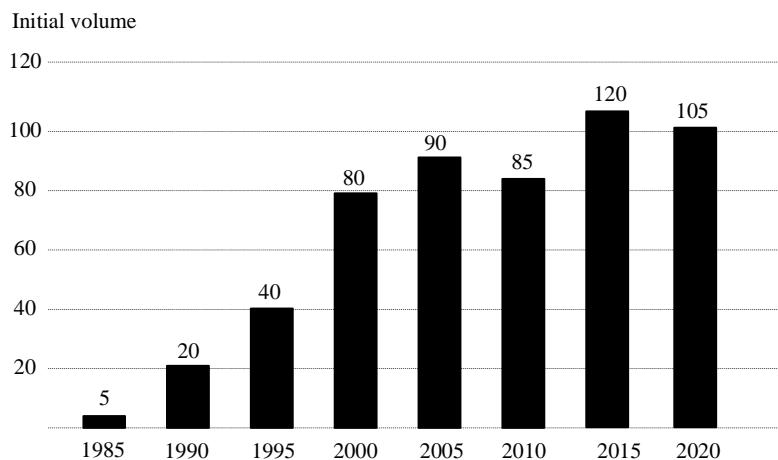


Figure 1. Number of international journals in China

Compared with before 2000, the number of China's academic journals has increased rapidly. On the one hand, this is due to China's emphasis on the "going out" of publishing industry, including academic journals. In November 2006, the general office of the State Council issued "several policies on encouraging and supporting the export of cultural products and services", which determined the basic strategy of "going out" of culture; In 2007, the report of the 17th National Congress of the Communist Party of China pointed out that it is necessary to strengthen cultural exchanges with foreign countries and enhance international influence; in 2009, the "cultural industry revitalization plan" gave policy support to the export of cultural products in terms of technological innovation, market development, customs, etc.; in 2012, the General Administration of press and publication issued some opinions on speeding up the going out of China's press and publishing industry to encourage the publishing industry to go abroad; In 2015, the 13th five year plan of the Fifth Plenary Session of the 18th CPC Central Committee pointed out that we should strengthen the construction of international communication capacity, innovate cultural exchange methods, and enhance the international discourse power. On the other hand, China's periodical publishing industry is becoming more and more prosperous. In 2015, the total number of periodicals published reached 10014, and the total number of printed copies reached 2.878 billion. With the influence of China's opening-up policy, the global environment and the evaluation mechanism of domestic academic journals, many academic journals actively go abroad, hoping to step onto the international stage and integrate with the world, so as to meet the development of journals And academic exchanges. There are many kinds of sponsors of Chinese academic journals, including universities,

research institutions, societies, publishing houses, associations, journals, etc., showing a trend of diversified development. The number of Chinese academic journals sponsored by research institutions, universities and academic societies ranks among the top three, accounting for more than 80% of the total. Among them, the number of journals run by research institutions and universities exceeds 100, which undoubtedly becomes the main force of Chinese academic journals. On the other hand, the number of Chinese academic journals sponsored by associations, periodical agencies, enterprises and other types of units is relatively limited. On the one hand, research institutions and universities have rich academic resources and professional researchers, whose research ability, resource integration ability and academic ability are more prominent, their work system is more perfect, and they have a solid foundation for running journals; On the other hand, it is also beneficial for the sponsors to host Chinese academic journals by research institutions and universities. The improvement of the quantity and quality of journals can effectively expand the academic influence of the sponsors and enhance their popularity in the academic circles in the industry. Taking foreign literature research as an example, the journal integrates the advantageous resources of central China Normal University in the field of literature and has been popular since 2005. The citation index of science and humanities, in turn, promotes the popularity of the dominant disciplines in Central China Normal University. However, there is still a certain gap in academic resources and integration ability between associations, enterprises and other institutions, and academic journals are generally located at the edge of their business, with weak interest correlation and weak foundation and motivation for running journals.

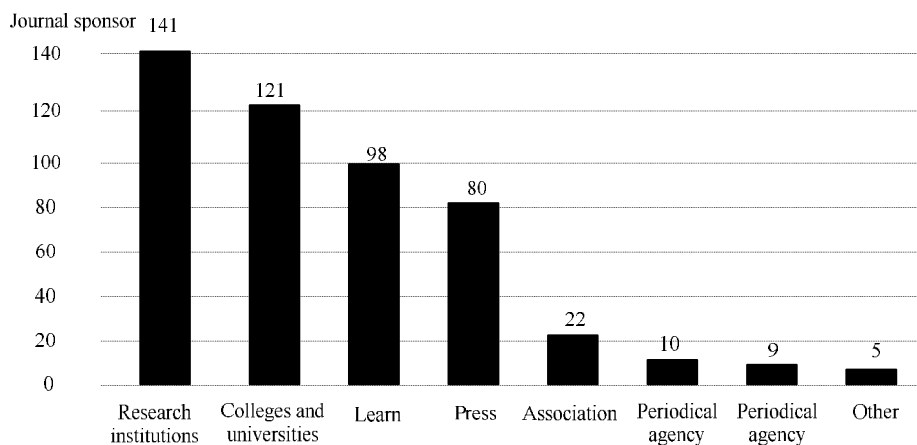


Figure 2. Number of journal sponsors

Display is very important for academic journals. Especially in the era of digital publishing, the degree of display often affects the number of articles read, downloaded and cited in academic journals, which is closely related to the influence of journals. Therefore, it is of great significance to improve the network display of journals. The author investigates the status of journal display from three aspects: online contribution system, open access and official website. At present, the display degree of Chinese academic journals is generally optimistic. Among them, 354 kinds of Chinese academic journals have established their own official websites, accounting for 81.38%. Through the official websites, users can easily browse the latest dynamic information of academic journals in the network environment by providing users with a comprehensive channel to understand the journals, breaking through the limitation of time and space, and effectively improving the dissemination and penetration of journals; Open access means that users can directly search, read, download and disseminate the literature in journals through the Internet. About 80% of China's academic journals have realized open access, so as to facilitate readers' access, promote academic exchanges between China and foreign countries, so as to promote China's academic journals to the world and enhance their international influence; In addition, 333 kinds of Chinese academic journals have set up online submission system, accounting for 76.55% of the total number. This not only facilitates the editor's review work, helps to improve the editing efficiency, provides a communication platform for reviewers and authors, but also improves the display of journals and attracts more excellent manuscripts.

5. Internationalization Development of Chinese Journals and Innovation of Digital Reform

At present, the development of domestic journals is uneven, some journals are seriously divorced from reality, life and readers; some journals are not high in style and content; some have quality problems in editing, proofreading and binding, which is extremely unfavorable to the development of China's journal industry in the competition. Quality is the soul and life of periodicals. If Chinese journals want to go abroad and go to the world, they must make great efforts in the quality of journals. Journals should establish strict quality standards and quality assurance system. From planning, topic selection, soliciting contributions, editing, proofreading, binding design to printing and packaging, we should grasp every link of the editing process and eliminate quality errors. It should be based on the continuous introduction of elegant style, as well as ideological, artistic, knowledge in one of the cultural products. It is the only way for the internationalization of Chinese periodicals to break the institutional ice of Chinese Periodicals by the restriction of sys-

tem. The reform ideas of national competent departments on media group operation provide opportunities for Chinese journals to break through the system bottleneck. Many periodical units are also aware that although the current management system can maintain the survival of some necessary journals by administrative means, the malpractice of being divorced from the market as a whole is becoming increasingly obvious, which can not fully reflect the market principle of survival of the fittest. It is gratifying to get rid of the malpractice fundamentally and seek new life. Especially in a large number of science and technology journals, the pure academic journals relying on administrative budget and science fund account for a considerable proportion, while there are not many commercial journals that are truly market-oriented and need special attention. In a word, it is the requirement and inevitable result of market economy to carry out market-oriented management of periodicals and realize the industrialization of Chinese periodicals. It is also an inevitable choice to improve the internationalization influence of Chinese journals. Sixth, the establishment of a scientific man-machine system of human factors is related to the rise and fall of the development of journals, whether the mechanism of talent introduction, use and training is reasonable, and science is the key to whether the journal can stand firmly in the local place and go to the world. To introduce talents, we should be open-minded and pay no attention to the introduction of international first-class professionals to avoid inbreeding. In the use of talents, the chief editor should let other managers do it freely, provide them with a stage to fully display their talents, make the staff make the best of their talents, dare to promote and cultivate new people, and fully mobilize everyone's enthusiasm and creativity, so as to become the driving force to improve the quality of periodical products.

Several relations should be handled correctly in the orientation of periodicals. We should correctly handle the relationship between politics, artistry and scholarship, between cosmopolitanism and nationality, and between carrying forward tradition and reform and innovation. The internationalization of authors is one of the symbols of the internationalization of a journal. It indicates the internationalization of the source of contributions and the affirmation of a journal by the authors all over the world. Only in the international source of contributions can we select papers with international leading level. At the same time, the internationalization of editorial board members and reviewers ensures that journal articles, especially academic papers, have the world leading level. The magazine should have a group of famous people, writers and scholars at home and abroad to contribute, comment and edit for the journal, so as to improve the popularity of the magazine. We should vigorously develop weekly and semi monthly journals, speed up the publishing speed,

increase the frequency of publication, maximize the role of journals and expand the impact of journals. To seek ways to improve reader service, advertising service and product extension service. Foreign periodical circles, especially periodical issuers, attach great importance to investigation and research. The contents of such investigation institutions, such as audience analysis, product evaluation, psychological experiment and lifestyle research, reading rate, readability and layout design, often result in negation of the pre hypothesis. However, this does not mean that the investigation fails, but reveals the existing facts, so that media operators can make decisions on whether to act or not by using such information. For a long time, there are few such surveys in China's journals. They stick to the principle and purpose of running journals unchanged for many years. They are satisfied with the traditional mode and current situation. They do not have readers in mind and lack market orientation. Therefore, going out of the magazine, approaching readers, listening to the voice of society and readers, establishing market research and reader information data inventory should be effective actions for the development of journals.

In order to change the situation that the main distribution channel of periodicals is monopolized by the postal department, and there is mutual restraint among various distribution channels, we should make full use of modern information technology, and gradually build a network service system for periodical management, distribution and operation, so as to realize resource sharing. The establishment of the Agency Industry Association, the use of geographical proximity, discipline related principles of macro-control, so as to regulate the various problems of journal distribution agency. To strengthen the development of advertising management, promote the operational efficiency of the periodical industry. At present, there are still some shortcomings in China's journal advertising, such as plain creativity, rough production, poor service and reputation, and nonstandard operation. Therefore, we should subdivide the market objectives of advertising in the advertising management, so as to make the advertising more targeted, more professional and standardized, and innovate the content and form of advertising.

In a sense, the quality of a journal depends on the editor's ability of identification and knowledge, as well as the editor's comprehensive quality. Brand magazines should be created by compound talents with professional editing knowledge, extensive social knowledge, scientific and technological knowledge and economic mind. Journal practitioners with comprehensive quality should be: broad vision, global awareness, understanding and tolerance of different cultures and values; mastering the latest international trends and development direction in the professional fields covered by journals; being familiar with the international practices and laws related to jour-

nals; understanding the etiquette and common sense of international exchange; having the composite ability of professional disciplines and management disciplines, and the mutual penetration of multi disciplines; and; Master a foreign language.

In addition to the above basic requirements, as an editor, he should be familiar with the basic theories and working methods and skills of the library and information major, constantly learn new knowledge, be familiar with business activities, use computers to arrange and proofread, use the network to review manuscripts and deliver manuscripts online, have the ability to provide various services according to the needs of readers, and have good psychological quality, Be good at self-regulation and deal with changeable environment. We should pay attention to the cultivation of periodical publishing talents, and cultivate export-oriented talents with international concept and global consciousness, and interdisciplinary talents with various disciplines. The knowledge ability of the trained talents should meet the needs of market economy and social development. We should promote the flow of talents in the field of periodicals, establish a perfect and flexible incentive mechanism for talents, and increase the efforts to attract talents. Facing the globalization of journals, Chinese journals should be aware of their own situation, objectively examine their own conditions, and create conditions for themselves to integrate into the competitive field of international journals. Of course, when we have not yet participated in the international competition and are ready to go, it is better to concentrate our advantages on the domestic periodical market.

With the improvement of people's cultural level, the demand for magazines is increasing day by day. Apart from academic journals, we can attract many readers just on the social issues that people are generally concerned about. Such as social aging, education fees, migrant workers, social security and urban, rural medical and health care issues are all the focus of our attention. Moreover, with the improvement of people's living standards, people pay more attention to the quality of life, pay more attention to the quality of agriculture, food, housing and transportation, and care more about life. Therefore, the journal publishing should turn its attention to the citizens and the farmers, say what they want to say and introduce what they want to know. Strive to make the guide a companion of ordinary people. When magazines become people's life guide, mirror of social life, intimate friends of the public and suitable reading materials for all ages, periodicals will have the courage to go abroad, step onto the world periodical stage, and display the excellent culture of the Chinese nation.

6. Conclusion

Through the analysis of the existing academic journals in China in terms of starting time, publishing cycle, spon-

sors, Sino foreign cooperation, included databases, open access, influencing factors and so on, we find out the achievements and deficiencies of Chinese academic journals in international development. On the one hand, since 2000, the number of Chinese academic journals has increased rapidly, the publishing cycle has been constantly shortened, the cooperation with foreign publishers has been strong, and the status of journal display has become optimistic; on the other hand, the development of Chinese academic journals in various regions is unbalanced, the resources of running journals are scattered, the development of Humanities and social sciences journals is slow, and the dependence on foreign publishers is strong, and the influencing factors need to be improved. Then, on the basis of the current situation of development, the author summarizes the common paths of internationalization of academic journals in China, points out the typical representative cases of each path, analyzes the operation mode, advantages and disadvantages of journal development, and finally puts forward the corresponding optimization strategies.

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