Sustainable Development Trend of Chinese Advertising Design from 1992 to 2020: A Bibliometric and Content Analysis

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Abstract
By using the methods of bibliometric and content analysis, this paper conducted data mining and content research on the articles of advertising design research in China from 1992 to 2020 and analyzed the evolution context, hotspots, and sustainable development trends of advertising design research in recent 30 years. It was found that advertising design research has experienced four stages: embryonic, exploration, prosperous, integration and innovation. It mainly focused on four hotspots: collaborative research on relevant factors of advertising design, research on advertising design centered on plane media, renewal of concept and method of advertising design education, and research on advertising design and communication in the new media environment. This paper analyzed and predicted five future sustainable research directions: research on the profound transformation of advertising media in the digital age, research on nationalization theory and localization practice of advertising design, international academic dialog in the field of advertising design, research on advertising design education under the background of interdisciplinary, and sustainable social value innovation.

Keywords
advertising design, evolution context, hot topics, bibliometric method, content analysis

Introduction
Development stage of advertising design academic research in China is closely related to the development of China’s advertising industry (Zhu, 2016). The research of Chinese advertising began in the first half of the 20th century. At that time, advertising did not form a discipline category in China, so there were few research output, mainly focusing on the data sorting of advertising history (Zhu, 2016). In 1983, the first major in advertising in the history of Chinese higher education was established in Xiamen University and developed in the research of courses and teaching materials. The establishment of Academic Committee of China Advertising Association in 1987 marked that advertising scholars had a position to preach and publish academic theories. In 1992, China established the market economic system, and the advertising industry began to move toward the rapid development of marketization, which attracted Chinese advertising scholars to engage in countermeasure practical research. After China’s accession to the WTO in 2001, capital elements began to dominate the development of the advertising industry. The traditional advertising theory and model were challenged in the Internet era. The academic circles no longer simply followed the hot spots in the industry, but began to put forward insightful and forward-looking theoretical views (Chen & Zhu, 2018). From 1992 to 2020, the growth of China’s advertising business, the expansion of the scope of advertising activities, various forms of advertising activities, diversified forms of advertising presentation, and the evolution of advertising esthetic concepts have brought new technologies, new ideas and new challenges

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to advertising design, thus promoting the vigorous development of contemporary advertising design research and accumulating fruitful results for advertising academic research.

This study used the methods of bibliometrics and content analysis to analyze the evolution, hot spots and sustainable development trends of Chinese advertising design research in a combination of quantity and quality. Studying the academic development of Chinese advertising design in the past 30 years will help to clarify the progress process, research hotspots and future development trend of Chinese advertising design research, and has positive theoretical and practical significance for strengthening the discipline construction, advertising theoretical innovation and advertising practice guidance of Chinese advertising. In addition, the research results of Chinese advertising design are mainly published in Chinese journals, and the language of journals limited the international communication of Chinese advertising design research to a certain extent. This study attempts to help the international academic community understand the academic achievements of Chinese advertising design in the past 30 years, and enrich the pattern of global advertising research.

**Literature Review**

Over the past three decades, more and more scholars have published papers on advertising design. With the rapid development of advertising design related research fields, it is necessary to systematically review this research field. In recent years, scholars have mainly studied print advertising, advertising creativity, advertising history, advertising media: (a) In terms of print advertising research, Yu (2012) made a comparative explanation and explanation on the related concepts of the internationalization process trend of print advertising, summarized the necessity and possibility of the development of China’s print advertising internationalization process, and analyzed the impact of the internationalization process on China’s print advertising and the development of nationalization. Chen (2006) believed that Chinese modern magazine advertising can be roughly divided into four periods: the auxiliary period, the growth period, the development period and the prosperity period. (b) In the aspect of advertising creativity research, it mainly focused on the methodology of advertising creativity. On the basis of sorting and summarizing the types of advertising, Wen (2002) proposed 14 forms of advertising creative expression, such as foil method, exaggeration method and display method; Liao and Fu (2011) put forward the path innovation strategy for the development of China’s advertising creative industry, that was, to establish the core competitiveness of the advertising industry and improve the scale and professional agency ability of the advertising industry. Bei and Gao (2017) believed that with the acceleration of China’s economic development, China’s advertising creativity would be more diversified, but the development of nationality was a trend. (c) The study of advertising history put forward many views on historical stages and discipline development. Lyu (2007) studied the historical stages of world advertising and believed that the advertising history should be divided according to the degree of professional development of the advertising industry, and the starting point of the modern advertising period should be taken as the benchmark of the historical stages of advertising. Liao (2019) divided the development of China’s advertising discipline into initial stage, growth stage, reflection stage and theoretical construction stage. Ontology research and theoretical construction, normative research and empirical research, local and international advertising research, introduction of translation and academic innovation, traditional advertising and digital marketing were the key issues restricting the development of China’s advertising discipline. (d) The research on advertising media focused on different research directions in different periods, such as graphic creativity (Qu, 2013) and layout design method (Li, 2013) of print advertising; design features (Yi, 2008), symbolic context construction (Guan, 2014), communication function (Zhang & Zhu, 2011) of outdoor advertising; interactive design (Qi, 2012), semantic expression (Yang & Mao, 2014), expression form (Zhao, 2013) of online advertising; advertising strategic culture (Xu, 2014), commercial advertising design communication (Shu & Guo, 2014) and advertising design positioning (Xiao, 2015) in the new media era.

Through the analysis of the above research results, it can be found that there are still many problems that need in-depth research, mainly in two aspects. (a) Research perspective and content: Although the existing research has studied the perspectives of advertising design form, design style and historical development, it is lack of quantitative analysis and overall grasp of the literature, which is not conducive to a comprehensive grasp of the hot spots of advertising design research current situation and future trends. (b) Research methods and tools: The existing research focused more on the statement and analysis of historical materials or works, paid attention to individual feelings, and lacked effective research tools for data collection and mining of research literature.

**Data Source and Methods**

**Data Source and Search Strategy**

This paper took the advertising design research literature from 1992 to 2021 as the time setting and data selection basis. Mainly for the following two considerations: (a)
Since 1992 was the beginning of the marketization of China’s advertising industry, it effectively promoted the prosperity and development of the advertising market, presented more types, media and styles of advertising, promoted the evolution and development of advertising design ideas and styles, and presented different artistic characteristics in the past three decades. (b) From 1992 to 2021, China’s advertising research has developed rapidly and achieved fruitful results. With the rapid development of China’s economy, science, technology and culture, and the deepening of international exchanges, it has brought new ideas, new technologies and new methods to advertising design, continuously expanded the theories and methods of advertising design research, and promoted the growth of academic achievements in advertising design research. In these three decades, advertising design research has gradually become a hot research field of advertising and design.

All data were collected from the China National Knowledge Infrastructure (CNKI) (www.cnki.net), China Science and Technology Journal Database (www.cqvip.com), Wanfang Data (www.wanfangdata.com.cn), which are the representative of the Chinese journal database. The search strategy was as follows: Topic = “advertising design”, the time span was set from January 1992 to December 2020, document type was set as “journal.” Considering the representativeness and authority of articles, this study took the publications collected by the Core Journal Catalogue of Peking University and Chinese Social Sciences Citation Index (CSSCI) as research samples. Repetitive articles, meeting abstracts, advertising design works, solicitation notices, editorial materials, news items, personage introduction were excluded.

Research Method

This study mainly adopted the methods of bibliometrics and content analysis, in order to make the literature data analysis of advertising design more objective and make the literature content analysis more systematic. Bibliometrics is a quantitative analysis method, which takes external characteristics of literature as the research object, uses mathematical and statistical methods to describe, evaluate, and predict a specific field’s research status and development trend (van Eck & Waltman, 2010). The content analysis uses quantitative statistical analysis methods and tools to analyze the research object and draws qualitative conclusions from the statistical data (van Eck & Waltman, 2010). Bibliometrics and content analysis have different research focuses. The combination of them can make up for their shortcomings and enhance the reliability and accuracy of the analysis results (Ding, 1993). This study used bibliometrics to analyze the bibliometric law, characteristics and structure of Chinese advertising design research literature. Through the content analysis method, the representative literature was extracted to make a systematic and thematic comment on the research results and progress of advertising design, so as to provide the basis and conditions for the current research.

Data Analysis

All identified records were downloaded and imported into scientometric software tools, including title, author, journal source, keywords, year of publication, and author affiliation. Citespace and VOSviewer are scientometric software tools that widely used for bibliometric analysis of literature. Citespace (Version 5.3.R4, Drexel University, Chen C.M.) and VOSviewer (Version 1.6.14, Leiden University, van EckNJ) were used for keyword co-occurrence analysis, journal citation frequency analysis, keyword cluster analysis, and time analysis of published articles of advertising design research articles. Microsoft Excel 2013 was used to create the chart of annual research output. On this basis, combined with the content analysis method, this paper made a systematic and thematic review on the evolution context, hotspots, and frontier trends of advertising design research in recent 30 years.

Results

Publication Outputs and Time Trend

The number and change track of research literature on a subject can reflect the development level and speed of the subject in a specific period (Chen & Zhang, 2018). A total of 6,983 Chinese advertising design-related literature were published in the period from 1992 to 2020. Figure 1 showed the search methodology and the corresponding results. As shown in Figure 1, a total of 837 articles met our inclusion criteria. The number of annual articles from 1992 to 2020 was given in Figure 2. From two articles in 1992 to 44 articles in 2020, the number of Chinese advertising design-related articles has steadily increased over the past 30 years, with some fluctuations. The number of articles published in 2017 reached the highest in 30 years. Linear regression analysis was used to create the time curve of the number of articles that can predict the number of articles published in the future.

Co-occurrence Analysis of Keywords

Keywords are the refinement and concentration of the core ideas of literature. The basic principle of co-occurrence analysis is to count the number of occurrences of a group of keywords in the same group of literature,
and measure the affinity between them through the number of co-occurrences (Li & Chen, 2016). Keyword co-occurrence analysis map reflects the frequency and co-occurrence degree of keywords. VOSviewer 1.6.14 software was used to draw the co-words map of Chinese advertising design research based on distance two-dimensional spatial coordinates (Figure 3). Keywords are represented as circle nodes in the map. The larger the font and node, the higher the frequency of the keyword in the article, and the more likely it is to be a research hotspot in this field. The connection between nodes indicates the number of keywords appearing together in articles. The more the link, the closer the relationship between keywords (Rao & Liu, 2017).

Figure 3 showed the co-words map of Chinese advertising design research. A total of 135 keywords with frequency ≥ two showed in the 837 articles of advertising design research. After combining the words with the same meaning, 110 words were obtained. The results showed that “advertising design” “plane advertisement design” “advertising design education” “advertising creative,” and “poster advertising” were the top five high-frequency keywords, “modern advertising design” “advertising design course” “consumer” “higher vocational college” and “traditional culture” played a prominent intermediary role in different research fields.

**Analysis of Evolution Process**

Some scholars have proposed that there are two principles for the historical stages of advertising: one is that events that have a significant impact on the development of advertising are taken as an important basis, and the other is that advertising academic research is closely related to the development of advertising industry (Zhou, 2005). Publications are a very suitable data source for investigating the growth rate of scientific research (Bornmann, 2011). The number of documents issued is an important indicator to measure the development trend of a field in a specific period (Bornmann &
Mutz, 2015). Based on the above principles, the evolution of each stage of advertising design research was analyzed as follows according to historical events, articles annual output (Figure 2) and content analysis:

Since 1992, the marketization of advertising industry has promoted the development of advertising discipline, and the number of advertising design research papers has increased slowly. After China’s accession to the WTO in 2001, a large number of international advertising companies entered China, and the advertising industry developed more rapidly than ever before. From 2001 to 2009, the number of advertising design research papers increased rapidly. Since the establishment of the discipline status of advertising has enabled more scholars to participate in advertising design research, advertising design research has entered a prosperous period from 2010 to 2015. As digital media, Internet of things and other related technologies have entered a period of transformation, the industrial chain has been maturing, and the advertising industry has entered the stage of innovation and exploration of the integration of high-tech technology. According to the above analysis, the research on Chinese advertising design from 1992 to 2020 can be divided into four stages, namely, embryonic stage (1992–2000), exploration stage (2001–2009), prosperous stage (2010–2015), integration and innovation stage (2016–2020).

Embryonic stage (1992-2000): From basic concept research to practical and theoretical research. In 1992, Deng Xiaoping’s “South Talk” established China’s socialist market economic system. In 1993, the Chinese government issued the outline of the plan for accelerating the development of the advertising industry, which clearly defined the critical position of the advertising industry in economic and social development. In 1995, Advertisement Law of the People’s Republic of China was officially implemented. In 1999, Xiamen University, Communication University of China, Wuhan University, Renmin University of China and Shenzhen University jointly launched and established the China Advertising Education Research Association and held the first China Advertising Education Seminar, which is of great historical significance to strengthen the academic exchanges in
China’s advertising education circles. From 1992 to 2000, the advertising industry entered the stage of rapid development of marketization, with the proportion of advertising turnover and the number of advertising companies increasing. At the end of 1992, there were about 16,000 advertising companies in China, while at the end of 1993, there were more than 30,000 (Gao, 1994). At this stage, only 9.42% (60/837) of the total advertising design research articles were published, and the research activity was not high. As shown in Table 1, the research content has gradually shifted from basic concept research such as design principles and design misunderstanding to practical, theoretical research such as advertising creativity, application research, advertising orientation, and transmission characteristics.

**Figure 3.** A network map of co-words related to Chinese advertising design research from 1992 to 2020.

**Table 1.** Statistics of Keyword Frequency of Advertising Design Research in China From 1992 to 2000.

| Keyword                      | Frequency | Year |
|------------------------------|-----------|------|
| design principle             | 5         | 1992 |
| design misunderstanding      | 3         | 1992 |
| advertising creativity       | 8         | 1992 |
| advertising orientation      | 4         | 1995 |
| application research         | 15        | 1997 |
| transmission characteristics | 2         | 1998 |

**Exploration stage (2001–2009): Pluralistic exploration under the background of globalization.** With China’s accession to the World Trade Organization (WTO) in 2001, the pace of economic globalization in China has accelerated. Many famous multinational advertising enterprises have entered the Chinese market, putting pressure on advertising production and service quality. Wei (2008) believed that China’s accession to the WTO was a sign that China’s advertising industry was facing new opportunities and challenges. Since then, China’s advertising industry has entered a diversified development stage, which was specifically reflected in: the increasing diversification of advertising subjects, the diversification of advertising enterprise organization forms, the
diversification of advertising market competition methods, the diversification of advertising media and the diversification of advertising service standards (Wei, 2008). From 2001 to 2009, 248 advertising design research papers were published, accounting for 29.63% of the total sample. According to statistics, in September 2003, China’s Ministry of Education filed 140 advertising majors, and about 200 colleges and universities set up advertising majors or advertising departments to train advertising professionals at the junior college, undergraduate, master and doctoral levels, and formed three main education modes: news communication, art, and trade. Advertising Education Committee of China Association of Higher Education, established in 2009, has promoted the exchange of advertising education (Tan & Jiang, 2005). The cultivation of advertising design talents was the focus of this stage, focusing on the cultivation of creative thinking of advertising design, curriculum positioning research, artistic expression, curriculum system construction, teaching design analysis, teaching mode exploration. Scholars discussed the development of advertising industry. At the beginning of 2006, Advertising Grand View (theoretical Edition) began to publish scholars’ papers on the reflection of advertising agency system and the development model of advertising industry, which attracted the attention and discussion of advertising academia, industry and politics (Liao, 2019). With the development and application of the Internet in China, researchers have launched a new investigation on the advertising design of online media, trying to analyze the internal characteristics of advertising design through semiotics, psychology, traditional esthetics, chromatics, and other theories, as shown in Table 2.

Prosperous stage (2010–2015): A boom of advertising design research in China. With the significant improvement of China’s comprehensive national strength and the increasing accumulation of advertising academic research achievements, Chinese advertising scholars tried to establish an academic discourse system of Chinese advertising, strengthen exchanges and dialog with international advertising academic circles, and enhance the international influence of China’s advertising academic research. In 2010, Peking University launched the “China Advertising Industry Frontier Trend Forum” to promote the construction and development of advertising theory system. The opening of China Advertising Museum in 2014 was an event of great historical significance for China’s advertising industry and advertising academic research. The continuous enrichment of national advertising education and academic organizations has also strengthened the academic exchanges among national advertising scholars, and the research on advertising design has begun to enter a period of vigorous development. At this stage, a total of 293 articles were published, accounting for 35.01% of the total sample size. The average annual number of articles was about 49. The total number of articles and the average annual number of articles of this stage reached a peak in the past 30 years. Advertising academic research has changed from spontaneity to self-consciousness (Zhu, 2016). The course teaching of advertising design was still the key research topic at this stage. At the same time, the applied research of plane advertising, visual symbol, ink art, network advertisement, advertising design history, and new media has become the new research topics in this period (Table 3).

Integration and innovation stage (2016–2020): Integration and innovation of new technology exploration and nationalization research. Digital technology has brought inflammatory changes to the advertising industry. Profound changes have taken place in traditional advertising planning, advertising creativity and advertising production.

Table 2. Statistics of Keyword Frequency of Advertising Design Research in China From 2001 to 2009.

| Keyword                        | Frequency | Year |
|--------------------------------|-----------|------|
| advertising design principle   | 9         | 2001 |
| aesthetics                     | 10        | 2001 |
| periodical advertisement design| 13        | 2002 |
| course teaching                | 26        | 2003 |
| outdoor advertising design     | 10        | 2004 |
| psychology                     | 7         | 2004 |
| advertising delivery principle | 3         | 2004 |
| semiotics                      | 6         | 2005 |
| graphic creativity             | 5         | 2005 |
| commercial advertisement design| 5         | 2006 |

Table 3. Statistics of Keyword Frequency Of Advertising Design Research in China From 2010 to 2015.

| Keyword                          | Frequency | Year |
|----------------------------------|-----------|------|
| course teaching                  | 58        | 2010 |
| artistic characteristics         | 49        | 2010 |
| design application               | 43        | 2010 |
| plane advertising                | 21        | 2010 |
| visual symbol                    | 13        | 2010 |
| film and television advertisement| 9         | 2010 |
| outdoor advertising              | 9         | 2010 |
| network advertisement            | 9         | 2010 |
| ink art                          | 9         | 2010 |
| consumer psychology              | 7         | 2011 |
| advertising design history       | 6         | 2011 |
| new media                        | 15        | 2012 |
Traditional advertising has gradually changed into a new advertising pattern dominated by PC Internet advertising, mobile Internet advertising, digital outdoor advertising and intelligent marketing communication (Dai, 2013). Digital advertising refers to persuasive information (about products, services, and ideas) that interacts with consumers through digital media (Yao & Shang, 2022). The use of new digital media such as IPTV, digital signage, VR, and AR broadened the meaning of digital advertising and blurred the boundary between online and offline media. By the end of December 2020, China had 989 million Internet users, with an Internet penetration rate of 70.4%. Online shopping users accounted for 79.1% of the Internet users, with an online retail volume of 11.76 trillion, ranking first in the global online retail market for 8 consecutive years (China Internet Network Center, 2021). Digital advertising has gradually replaced advertising communication and become the main force of advertising communication, which will inevitably promote the transformation of advertising academic research. From 2016 to 2020, the total number of articles on advertising design was relatively stable. Advertising design research driven by new media digital technology, such as digital media, interactive advertising, artificial intelligence, and advertising design localization, national visual characteristics research were two emerging research topics in this stage (Table 4). The two research topics promoted each other.

**Discussion**

Based on the co-occurrence analysis of keywords, the frequency analysis of keywords, historical events, and content analysis, this study summarized four hotspots in the research field of advertising design in recent 30 years. Then, based on the data mining and content research, this study predicted five research directions for the future sustainable research of advertising design research in China.

**Hotspots Analysis**

**Collaborative research on relevant factors of advertising design.** Collaborative research on relevant factors of advertising design can be divided into two levels: theory and practice. Theoretical research focused on exploring visual esthetics, esthetic characteristics, and evaluation systems of advertising design, such as analyzing the beauty of the artistic conception, nation, interaction, and simplicity of advertising design through words, graphics, colors, and media (Zhang, 2014a). Theoretical research also focused on constructing advertising visual symbol culture (Zhu, 2014) and constructing advertising design criticism systems (Qin & Yang, 2006). The practical research mainly focused on the application of different methodologies in advertising design, such as montage (Song, 2009), symbolization (Tan, 2007), minimalism (Zhang, 2014b), and deconstruction of Chinese characters (Gao, 2013).

**Research on advertising design centered on plane media.** The research on design principle mainly focused on the analysis of graphic design, visual communication, and visual creativity, such as the characteristics of layout design in graphic design (Wang & Xu, 2017), the study of the graphic design style of commercial advertisement (Wang et al., 2009), the relationship between graphic design and graphic creativity (Zhang, 2012), and the creative expression of visual communication of advertising (Cai & Zeng, 2013). The research on design application mainly focused on outdoor advertising, network advertising, newspaper advertising, and periodical advertising. The research mainly included digital image integration application (Guo, 2017), photographic image application (Lu, 2015), layout design application (Li, 2013), virtual reality technology application (Wang & Lu, 2020), interactive element application (Wang & Zhang, 2014), Chinese character application (Tian, 2012), and graphic creative application (Qu, 2013).

**Renewal of concept and method of advertising design education.** Advertising design education research focused on studying new trends, new models, and new education methods, forming a research network of advertising design education. According to the statistics, the author group of advertising design education research was mainly university teachers. University teachers were the leading practitioners and researchers of advertising design education. Advertising design education has become a research hotspot, closely related to the

**Table 4. Statistics of Keyword Frequency of Advertising Design Research in China From 2016 to 2020.**

| Keyword                                      | Frequency | Year |
|----------------------------------------------|-----------|------|
| plane advertising                            | 36        | 2016 |
| course teaching                              | 29        | 2016 |
| nationalization                              | 28        | 2016 |
| digital media                                | 27        | 2016 |
| tea advertisement                            | 22        | 2016 |
| film and television advertisement            | 10        | 2016 |
| public service advertising                   | 9         | 2016 |
| graphic originality                          | 12        | 2017 |
| interactive advertising                      | 10        | 2017 |
| information age                              | 8         | 2017 |
| food advertising                             | 16        | 2019 |
| artificial intelligence                      | 6         | 2019 |
extensive establishment of advertising design-related majors in Chinese universities and the rapid development of the advertising industry. The research mainly focused on the practical study of educational methods, such as the construction of advertising curriculum in higher vocational schools (Zhang, 2020), the structure of advertising design curriculum in the new media environment (Tao, 2013), the development and construction of excellent courses (Zou et al., 2011), the integrated training method (Yan, 2014), the project-based teaching (Li, 2016), and the workshop based teaching mode (Chai, 2013).

Research on advertising design and communication in the new media environment. New media provides new methods and approaches for advertising design. The research of new media advertising design mainly included environmental impact and technology application. The research on environmental impact mainly focused on the reform of advertising design under the background of new media (Shi, 2015), the innovation and development of plane advertising design (Liu, 2015), the characteristics and forms of Internet advertising (Zhao, 2013), and the design and communication of commercial advertising (Zhang, 2016). At the level of technology application, it mainly explored the application of digital media technology in advertising design (Li, 2015), the application of virtual reality technology in visual optimization of plane advertising (Wang & Lu, 2020), mobile media advertising design analysis (Shi, 2014), interactive design of network media advertising (Qi, 2012), and interactive commercial advertising design and communication of mobile terminal (Ma et al., 2019).

Sustainable Development Trends

Research on the profound transformation of advertising media in the digital age. The advent of digitization makes the needs of advertisers undergo disruptive changes. This change will be the foundation of the advertising industry and play a decisive role in the development of business forms (Li, 2017). Constantly updated technological breakthroughs expand the boundaries of the media and become the driving force for the change of the media pattern. Almost every major technological breakthrough will profoundly change the media form. From big data to manuscript writing robots, from mobile live broadcast to a short video, from virtual reality to augmented reality, technology iteration has brought more possibilities for the change of media form. Advertising design is the combination of technology and art. With the evolution of general esthetics and values, advertising circles continue to explore the double promotion of “technology and art” in design theory and practice.

Dealing with the relationship between media and content, art and technology is the potential direction of advertising design research in the future. It includes the theoretical research on the communication strategy, transformation strategy, development path, esthetic evolution, speculative positioning, artistic ecology of advertising under the background of media integration, and the exploration of the esthetic form and design strategy of visual media such as plane media advertising, mobile video advertising, network advertising, and outdoor advertising under the interactive design technology.

Research on nationalization theory and localization practice of advertising design. The understanding of national culture is the understanding of traditional cultural symbols (Lin, 1997). Chinese excellent traditional culture is the spiritual lifeline and the value orientation of the Chinese nation. The application of conventional cultural symbols in advertising design is the embodiment of the national modernization of Chinese advertising. Ink, calligraphy, paper-cut, embroidery, and other national elements are the source of inspiration for designers. Under the background of economic globalization, there are more and more cultural exchanges and collisions between countries. Significant changes and innovations have taken place in various artistic fields. Advertising design is a representative cultural field. The development of China’s advertising industry is not long, and it lacks solid national consciousness and a complete local design concept. Integrating into traditional culture, returning to the path of national design, reflecting cultural consciousness, enhancing the sense of national cultural identity, and reflecting the national spirit of patriotism will become an important research content of the sustainable development of advertising design.

International academic dialog in the field of advertising design. After entering the Chinese market, the Western advertising industry has influenced China’s advertising industry and advertising research, which has formed a consensus in China’s advertising industry and academia. However, according to the literature content analysis, Chinese scholars have few research achievements on international advertising design. They are not timely and sensitive to the acceptance and reflection of the cutting-edge achievements of Western advertising (Xu, 2006). Chinese advertising research cannot be independent of international advertising research. In the context of cultural globalization, the development of advertising, especially transnational advertising, vividly shows the interaction and influence of economy and culture. Therefore, international communication and dialog in advertising design is a potential research direction in the future.
Research on advertising design education under the background of interdisciplinary. Interdisciplinary can promote academic innovation and give birth to new academic fields (Qian, 2020). The rise of interdisciplinary research has broken the boundaries of disciplines and announced a wide range of multidisciplinary knowledge flow and theoretical integration. In the face of new social changes, it is urgent to establish a new domain in design education to meet the new challenges. Advertising is a multidisciplinary interdisciplinary discipline involving sociology, economics, psychology, journalism, communication, linguistics, statistics, esthetics, acoustics, optics, electricity, and many other disciplines. Advertising design also involves the interdisciplinary fields of design, psychology, communication, marketing, etc. It is a new challenge and an important research direction for the future higher education of advertising design to cultivate interdisciplinary innovative advertising design talents, construct new media advertising design courses, carry out the integration of advertising and technology, improve students’ original, integration and planning ability, and cultivate advertising design talents with the integration of humanities, art and technology.

Sustainable social value innovation. Over the past 30 years, unsustainable consumption patterns have led to global environmental degradation and climate imbalance, threatening the earth’s ecological balance and the sustainable development of human society. Citizens’ transformation to sustainable consumption behavior can effectively deal with and solve these environmental problems. Advertising is the most direct way to promote consumers to buy green products (Liu et al., 2020). More and more scholars are aware of this topic and study sustainable consumption and production through green advertising. Ahmad et al. (2010) proposed that it began to rise in the western market in 2000, so more and more consumers are eager to seek environmental protection products (Ahmad et al., 2010). Jiménez-Marín et al. (2022) proposed that sustainable marketing strategy can achieve people’s happiness and satisfaction. Khandelwal and Bajpai (2011) took subway and non subway customers as experimental objects, trying to find out the green advertising factors of their purchase intention differences, and then established a simpler and more accurate purchase intention model. Ülkü and Hsuan (2017) believed that the company should make use of modular product production technology and product return policy, take consumer demand as the guidance, and improve the sensitivity of product greenness and sustainable consumption through careful advertising and product reusability. Sustainable consumption is becoming a focal point for countries to formulate consumption strategies and public policies, and it is also an inevitable choice for China’s economic development in the future. In 2021, Hangzhou Municipal People’s Government of China and China Advertising Association jointly held the “2021 China Advertising Forum,” which put forward how to balance commercial value and social value (People’s Network, 2021). Therefore, in the context of sustainable development, the topic of how to realize sustainable social value innovation on the basis of balancing user value and commercial value has strong practical significance.

Conclusions

This study comprehensively adopted the dual methods of bibliometrics and content analysis to provide a multiple perspective of quantitative and qualitative, personality and commonness, phenomenon and essence for the research in the field of advertising design in China in the past 30 years, analyzed and summarized the hotspots of advertising design research, and pointed out the possible emerging research directions in the future.

- The number of papers related to advertising design in China has increased steadily in the past 30 years, and the number of papers published in 2017 reached the highest. Advertising design research in China has experienced four stages: embryonic, exploration, prosperous, integration and innovation. The improvement of advertising marketization and the establishment of the discipline status of advertising in China have promoted the development of advertising design research and made more scholars participate in the advertising design research.
- The analysis of high-frequency keywords and keyword co-occurrence revealed that advertising design research in China mainly focused on plane media advertising, advertising education and new media advertising. The rise of advertising education research was closely related to the establishment of a large number of advertising majors in Chinese colleges and universities. The establishment of Academic Committee of China Advertising Association also promoted the exchange of advertising education. University teachers were the main practitioners and researchers of advertising design education. They paid more attention to the research of new trends, new models and new methods of advertising design education.
- The development of digital technology has prompted researchers to pay more attention to the academic research related to new media advertising. The application and dissemination of new
technologies such as digital media technology and network information technology in advertising design was the research direction that current researchers were keen on. With the rapid increase of Internet users, digital advertising has gradually become the main force of advertising communication, which affects the direction of advertising academic research.

- Although advertising industry in China was influenced by the west, the advertising design research in China was not timely and sensitive to the acceptance and reflection of Western advertising research methods and cutting-edge achievements. From the analysis of literature content, the research in China focused more on the field of social science.

- The deep transformation of media, nationalization theory and localization practice, international academic dialog, interdisciplinary advertising design education, sustainable social value innovation have attracted the attention of scholars, and may become an emerging trend in the future.

Considering the representativeness and authority of articles, this study took the publications collected by the Core Journal Catalogue of Peking University and Chinese Social Sciences Citation Index (CSSCI) from the China National Knowledge Infrastructure (CNKI), China Science and Technology Journal Database, Wanfang Data, which are the representative of the Chinese journal database. The results of advertising design research in China published in books and English journals were not included in this study. In the future research, combined with the methods of investigation and interview in the field of social science, the results can be more in-depth and objective.

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