Customer Satisfaction in the Field of Corporate Social Responsibility Research -- A Visual Analysis based on Citespace Software

Xiangzhou Hua, Nurul Ain Mohd Hasan, Feroz De Costa, Zulhamri Abdullah

Department of Communication, Faculty of Modern Languages and Communication, Universiti Putra Malaysia, Malaysia

Abstract

To stand out in the era of brand economy, enterprises need to establish and maintain a good relationship with consumers. This is not only helpful to gain more profits, but also the key to improve competitiveness and brand influence. By fulfilling corporate social responsibility (CSR), enterprises can influence consumers' brand satisfaction and loyalty, so as to promote consumers' cognition of their brands and products and improve brand relations. In this study, CiteSpace software was used for scientific measurement and visual analysis of the relevant literature of CSR research from 2003 to 2022.

The results showed that from 2003 to 2022, a total of 600 literatures were included, and the number of literatures showed an exponential growth trend, with an annual average of about 30 papers. There is increasing interest in this area. The United States was the highest producer in this field, accounting for about 24.67% of the total literature. Penn State University was the most productive, followed by the University of Cantabria. Influential institutions include Michigan State University and Sejong University. Mattila, Anna S is the most published author. The number of Sustainability articles was the largest, the impact factors of Journal of clean Production was the largest, and the number of co-citations of Journal of Marketing was the largest. Research focuses on brand image, consumer behavior, corporate reputation, brand attitude, sustainable practices, cause-related marketing, etc. Future research trends are mainly reflected in the mediating factors between CSR and consumer satisfaction, and the relationship between brand image and brand trust, which will provide new ideas for the management, governance and sustainable development of this field in the future.

Keyword: Corporate Social Responsibility (CSR), Consumer Satisfaction, Visual Analysis, Citespace

Introduction

Corporate social responsibility(CSR), It refers to the company's responsibility to consumers, communities and the environment, while at the same time creating profits for shareholders and employees and assuming legal responsibilities. It was recognised as an efficient tool to enhance attitudes towards a company (Bhattacharya & Sen, 2004), its financial performance and market value (Du et al., 2010). Intuitively speaking, whether enterprises fulfill their social

responsibilities has a direct interest relationship with consumers. For example, the damage caused by the "Melamine" incident to many children cannot be recovered and remedied. The misfortune of these children directly hurt these families. If such enterprises are allowed to continue to develop, then where is the future of the country? As the relationship between corporate social responsibility and consumers becomes more and more close, relevant researches in this field are also increasing. Any enterprise, if the most basic responsibility for consumers have not fulfilled, how can let consumers satisfaction and trust? In 2015, Yang Shaohua investigated the influence of CSR on consumer satisfaction through 350 questionnaires, and the results showed that CSR could not only directly affect consumer satisfaction, but also indirectly affect consumer satisfaction through intermediary variables. According to Shen zhubing, as a part of society, enterprises need to shoulder their social responsibilities, which will not only help improve their brand image, but also improve consumer satisfaction (Shen, 2012). Wei Nongjian et al. verified the indirect positive impact of CSR on consumer satisfaction through modeling (Wei & Tang, 2009). But in other countries, although many relevant scholars have conducted research on the relationship between corporate social responsibility and consumers, many issues are still unclear, especially the results of research on the impact of corporate social responsibility on consumer satisfaction are inconsistent (Berens et al., 2007); (Peloza, 2009); (Walsh & Bartikowski, 2013);(Deng & Xu, 2015). So far, the research in this field has made some progress, but there is still a lot of space for exploration, especially the lack of macro and comprehensive combing and induction. On this basis, this paper conscientiously and comprehensively summarizes the research field of consumer satisfaction in corporate social responsibility, and reveals the development status, hot spots and frontier trends of this field.

CiteSpace is developed by Professor Chen (Chaomei Chen) of Drexel University. The software is mainly run on the JAVA platform to reveal scientific knowledge and potential connections with each other in a visual way (Chen, 2006). Through the interpretation of map information and the mining of relevant information, researchers can accurately grasp the current status quo of scientific development, research hot spots and new development trends in relevant fields (Chen, 2007). This study is based on the field of influential data literature, from the country, institutions, authors, journals, keywords and cited multiple perspectives, more comprehensive, system reveals the research characteristics of the field, aims to contribute to the development of the field of a weak strength, in order to provide theoretical reference for other scholars research and reference in the future.

Method
Data Acquisition

Using the Web of Science Core Collection (WOSCC) as the source database, the literature types are "Article" and "Review", Language is English; The retrieval period is not limited; Specific search time: November 20,2022; Data processing: 600 documents were retrieved according to the search strategy of Table 1 below, Download content select "Full record with all references", Download format is in plain text format, As download_N (N is the natural number), After importing the CiteSpace software, 600 documents were obtained.

Table 1
Search strategies and results

Set	Result	Search Query
#1	28788	TS="Corporate social responsibility"
#2	17943	TS= "Consumer satisfaction"
#3	**600**	**#1 AND #2**

Results
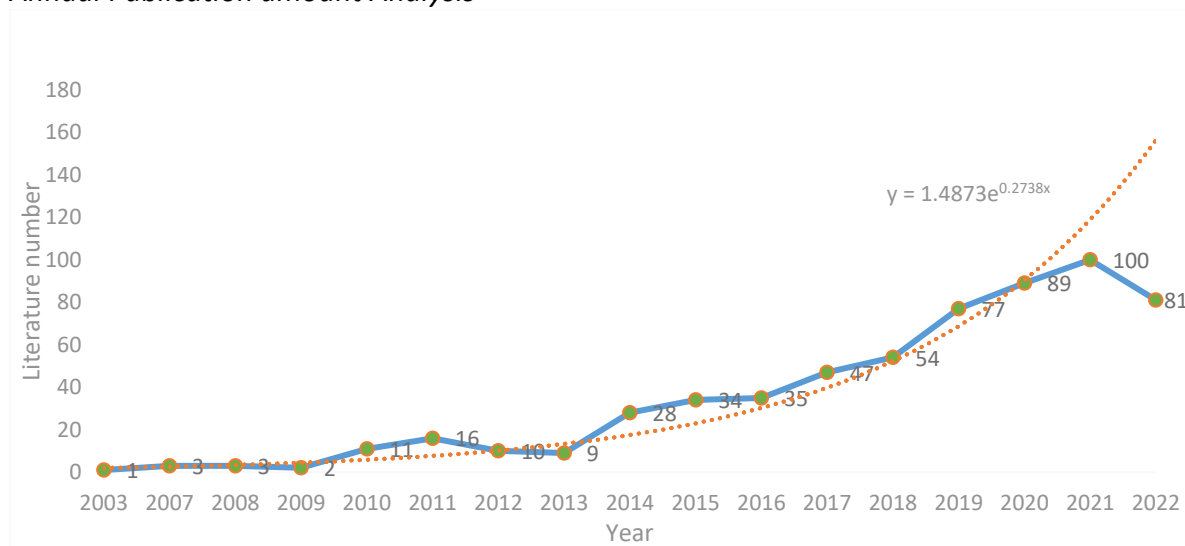*Annual Publication amount Analysis*

Figure 1. Amount of publications during 2003-2022

According to Figure 1, the overall literature in the field of the relationship between CSR and consumer shows a growing trend, with a fitting curve index of $y = 1.4873e^{0.2738x}$。 In 2003, researchers published the first article on the relationship between CSR and consumers, and in the period of 2003-2009, the publication level was only 1.3 articles per year, which was in the "blank period" between 2004-2009. During the period 2010-2013 period, the number of publications in this field changed little year by year, with the publication level of 11.5 publications per year. During the 2014-2021 period, the number of publications showed an increasing trend and reached a stage "peak" in 2021. Since the search date is October 10,2022, the statistics in 2022 are incomplete, but the number of literature in 2022 is predicted as the increasing trend according to the annual literature trend and the fitting curve formula.

National Distribution Analysis
        The CiteSpace software was used to generate the national cooperation map (Figure 2), N=79, E=248, and a total of 79 nodes and 248 connections were generated. Table 2 lists the information on the top 9 countries by production. According to the chart, a close cooperation was formed between the countries. Among them, USA has the most literature output (148 articles), accounting for about 24.67% of the total literature. Peoples R CHINA (105 articles), accounting for about 17.50%, ranked second, and Spain (72 articles), accounting for about 12%, ranked third. Next, South Korea (53), England (39), Australia (33), India (32), Pakistan (28), Malaysia (27). The countries with the highest center are USA (0.43), followed by Spain (0.31), Peoples R CHINA (0.22), England (0.19) and Italy (0.15), indicating that the research

results of the above countries have high international recognition and great influence in this field.
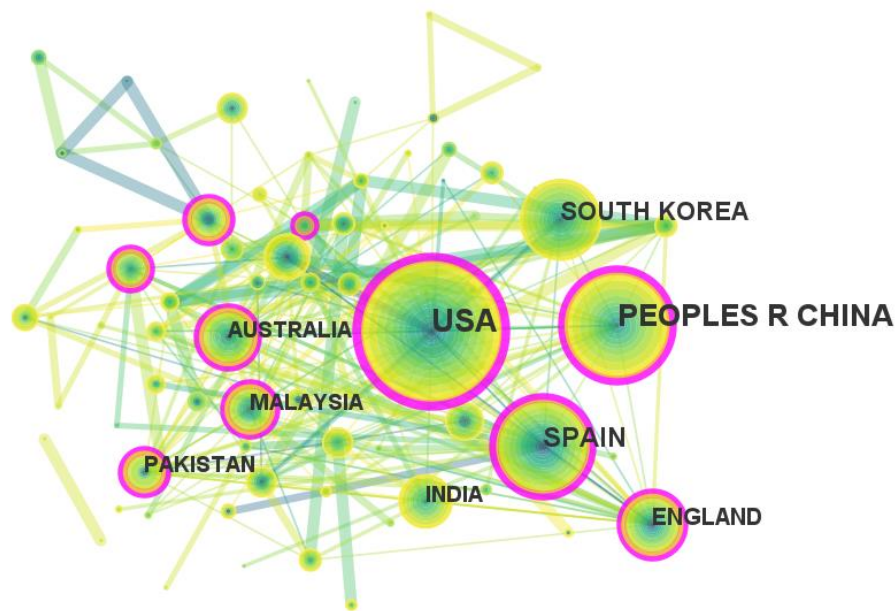

Figure 2: The National Cooperation Network

Table 2
National publication amount ranking (Top Ten)

Ranking	Country	Frequency	Centrality
1	USA	148	0.43
2	Peoples R CHINA	105	0.22
3	Spain	72	0.31
4	South Korea	53	0.04
5	England	39	0.19
6	Australia	33	0.10
7	India	32	0.02
8	Pakistan	28	0.14
9	Malaysia	27	0.11

Institutional Distribution Analysis

The CiteSpace software generates a collaborative network (Figure 3) with 314 nodes and 203 connections. The node in the graph corresponds to an organization. The larger the node, the more the amount of the corresponding organization sends the document, and the connection indicates that there is a cooperative relationship between the institutions. Table 3 lists the information of the 10 institutions with a high publication volume.
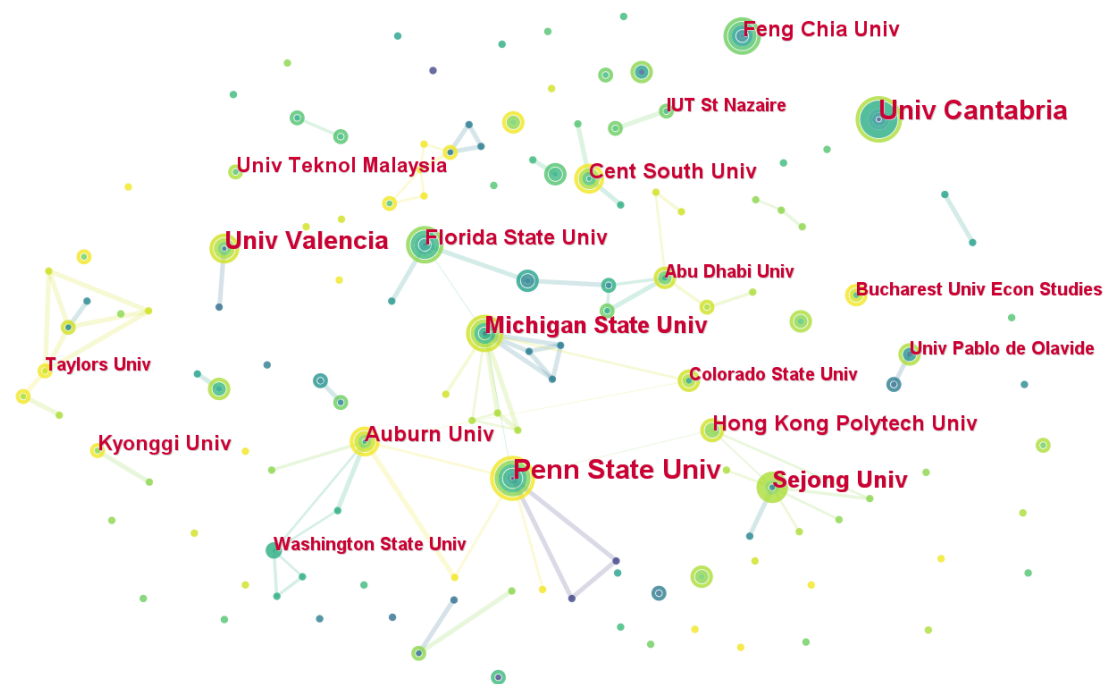
Figure 3: Institutional Cooperation Network

Table 3
Institutional publication amount ranking (Top Ten)

Ranking	Institution	Frequency	Centrality
1	Penn State Univ	11	0.01
2	Univ Cantabria	10	0
3	Univ Valencia	8	0
4	Michigan State Univ	7	0.02
5	Sejong Univ	7	0.01
6	Auburn Univ	6	0.01
7	Florida State Univ	6	0.01
8	Hong Kong Polytech Univ	6	0.01
9	Cent South Univ	6	0
10	Feng Chia Univ	6	0

According to the map, the publishing institutions in the field of consumer satisfaction and corporate social responsibility have formed relatively close cooperative relations. According to the table, the Penn State Univ produced the most, with 11 articles, accounting for about 1.83%. The largest central institution is the Michigan State Univ (0.02) in USA, followed by a relatively large institution, the Penn State Univ (0.01).

Author Analysis

The CiteSpace software generated the author collaboration network (Figure 4) with 367 nodes and 257 connections. The node in the map corresponds to an author. The larger the node, the more the corresponding author posts, and the connection indicates the cooperative relationship between the authors.Table 4 lists the top 10 authors in posting volume. Mattila, Anna S is the author with the highest number (8) in the field, first studied in 2014. Perez, Andrea ranked second with 6 posts, and Su, Lujun; Rodriguez del bosque, Ignacio; Fatma,

Mobin; Lombart, Cindy, ranking third to sixth. Secondly, Bande, Belen; Louis, Didier; Aljarah, Ahmad; Xu, Xun also have a certain amount of posts. The overall centrality is not large. The cooperation mainly revolves around the high-yielding authors, forming a good cooperative relationship and atmosphere.
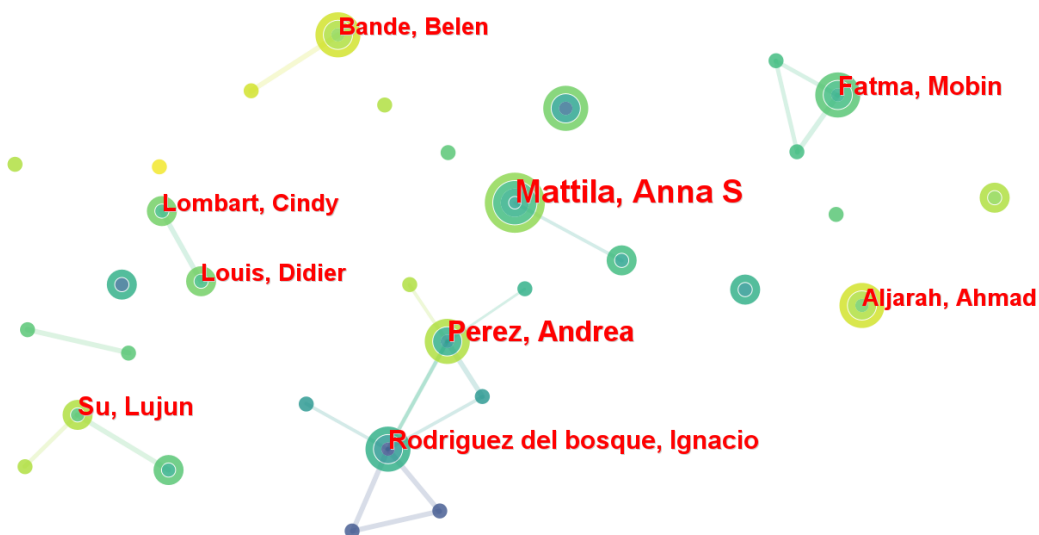

Figure 4. The Author Cooperative Network

Table 4
Author publication ranking (Top Ten)

Ranking	Author	Frequency	Year
1	Mattila, Anna S	8	2014
2	Perez, Andrea	6	2013
3	Su, Lujun	5	2017
4	Rodriguez del bosque, Ignacio	5	2008
5	Fatma, Mobin	5	2015
6	Lombart, Cindy	4	2016
7	Bande, Belen	4	2019
8	Louis, Didier	4	2016
9	Aljarah, Ahmad	4	2018
10	Xu, Xun	3	2015

Journal distribution analysis

Table 5 lists the top 10 journal information for the number of articles published in the field. The most published journal was Sustainability (70), accounting for about 11.67% of the total literature, the impact factor (IF2021) was 3.889. Secondly, International Journal Of Hospitality Management (33 articles), the impact factor is 10.427;Journal Of Business Research (33 articles), the impact factor is 10.969; Journal Of Business Ethics (26 articles), the impact factor is 6.331. In addition, Journal Of Cleaner Production (11.072), Journal Of Product And Brand Management (5.248), Corporate Social Responsibility And Environmental Management(8.464), Journal Of Retailing And Consumer Services(10.972), Social Responsibility Journal(8.464) and European Journal Of Marketing(15.36).

Table 5
Information of the top 10 journals in publication

Ranking	Journal	Frequency	IF （2021）
1	Sustainability	70	3.889
2	International Journal Of Hospitality Management	33	10.427
3	Journal Of Business Research	33	10.969
4	Journal Of Business Ethics	26	6.331
5	Journal Of Cleaner Production	20	11.072
6	Journal Of Product And Brand Management	19	5.248
7	Corporate Social Responsibility And Environmental Management	17	8.464
8	Journal of Retailing And Consumer Services	16	10.972
9	Social Responsibility Journal	16	8.464
10	European Journal Of Marketing	13	15.36

Figure 5 is a total-cited map of journals generated using the CiteSpace software, with 639 nodes and 4629 connections at a density of 0.0227. Pruning is minimum spanning tree. Nodes in the graph represent the co-cited journals, and wires represent the co-citation relationship between journals, closely in the field. Table 6 shows the top 10 total citations in the field.

According to the chart, The most cited journal was Journal of Marketing (510 times), The impact factor is 15.36, Second by Journal of Business Ethics (495 views), An IF of 6.331; Journal of Business Research (484 views), The impact factor is 10.969. The first 3 journals with high centrality were Academy of Management Journal (0.12), Administrative Science Quarterly (0.07), and Journal of Consumer Research(0.05). In addition, Journal of Marketing and Journal of the Academy of Marketing Science are the journals with the highest cited influence factors in this field, with the influence factors of 15.36 and 14.904, respectively.

Figure 5. Journal co-cited network

Table 6

Information about the top 10 co-cited journals

Ranking	Cited Journal	Frequency	Centrality	IF （2021）
1	Journal of Marketing	510	0.02	15.36
2	Journal of Business Ethics	495	0.01	6.331
3	Journal of Business Research	484	0.02	10.969
4	Journal of Marketing Research	466	0.01	6.664
5	Journal of the Academy of Marketing Science	439	0.01	14.904
6	European Journal of Marketing	330	0.01	5.181
7	Journal of Consumer Research	314	0.01	8.612
8	Academy of Management Review	312	0.03	13.865
9	Journal of Retailing	292	0.01	11.19
10	International Journal of Hospitality Management	256	0.03	10.427

Research Hot Spot and Trend Analysis

Research hot spots and trends in the field of consumer satisfaction in corporate social responsibility are mainly explored through keywords co-occurrence, clustering, literature co-citation and mutation. The main source of key words and the title or theme of the literature are the induction and generalization of the core ideas of a literature. Through the study of key words, we can accurately grasp the essence of the research (Chen,2010). The concept of literature citation was first proposed by Soviet Irina Masakova and Henry Small, which mainly refers to the connection formed by two references cited simultaneously in references, which is a dynamic changing relationship (Small, 1973). Therefore, the development trend and hot spots of this field can be used to extract and mine the co-occurrence and grasp the clustering situation of keywords.

Keywords Analysis

The keywords co-occurrence map built by CiteSpace software has 467 nodes and 3341 connections. Nodes in the graph represent keywords, and connections represent co-occurrence relationships. Frequency and the top 10 centrality are shown in Table 7. The highest frequency in the map is corporate social responsibility(csr) (495 times), the corresponding to the largest node, satisfaction (268 times), ranked second. This was followed by "consumer satisfaction", "impact", "loyalty", "performance", "consumer", "trust", "model", and "service quality". The most central keyword was consumer loyalty (0.1), quality (0.08), and antecedent (0.07).
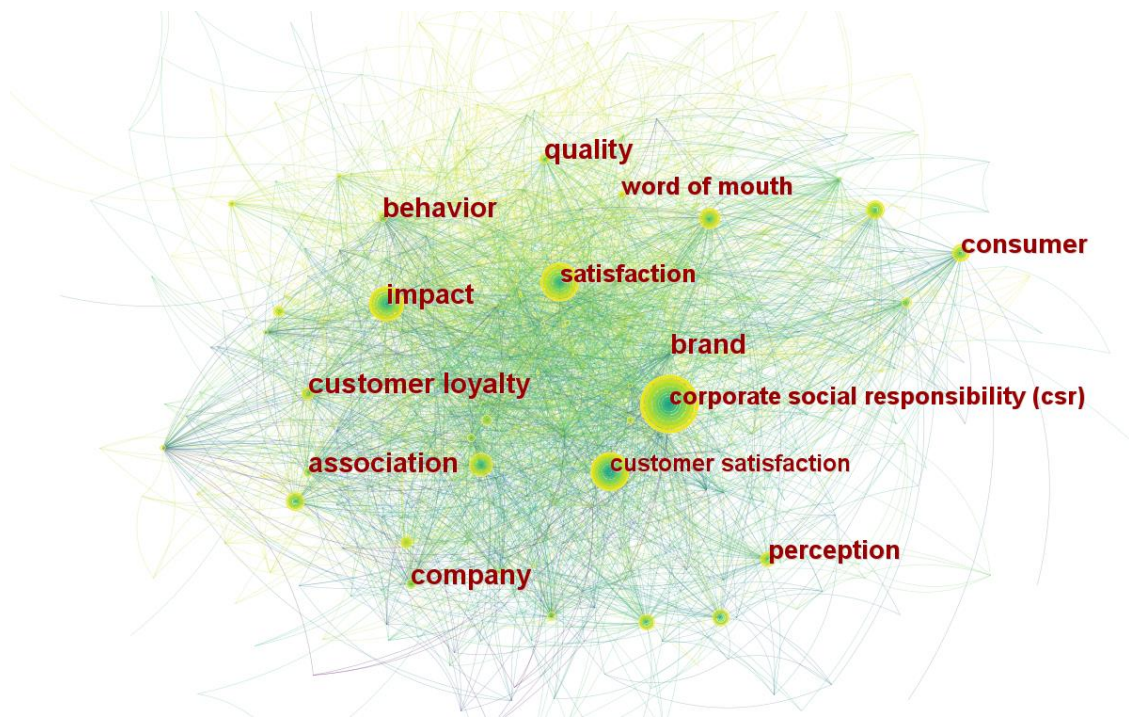
Figure 6. Keywords co-occurrence map

Table 7
High frequency and high centrality keywords information

Ranking	Frequency	Keyword	Centrality	Centrality	Keyword	Frequency
1	495	corporate social responsibility (csr)	0.04	0.13	company identification	28
2	268	satisfaction	0.01	0.11	financial performance	49
3	233	customer satisfaction	0.01	0.11	firm	26
4	219	impact	0.02	0.1	consumer behavior	21
5	125	loyalty	0.06	0.08	behavior	63
6	117	performance	0.07	0.08	consumer trust	39
7	100	consumer	0.07	0.08	attitude	21
8	97	trust	0.03	0.07	performance	117
9	96	model	0.04	0.07	consumer	100
10	95	service quality	0.06	0.07	moderating role	55

The CiteSpace software was used to obtain the keyword clustering (Figure 7), with a Q value of 0.3211 and an S value of 0.6385, indicating that the overall clustering results were scientific, reasonable and significant. There are 10 keywords clusters in Figure 7, including "# 0 cause-related marketing, #1 corporate social responsibility, #2 service failure, # 3 brand attitude, #4 corporate reputation, #5 sustainable practices, #6 brand identification, #7 brand

image, #8 sustainable consumption and #9 organizational commitment". The ranking of cluster numbers and the size of label fonts in the cluster map are mainly based on the cluster Size, that is, the smaller the label is, the larger the cluster font is, and the more the number of keywords contained in the cluster is.

Table 8 statistics the specific information for each cluster. Each cluster index is in a reasonable range, indicating that each cluster alone has good results and high homogeneity of each cluster module.The cluster #0 contains 68 key words, The top five feature words are cause-related marketing; trust; affective commitment; nonprofit; c-c identification. The cluster #1 contains 59 keywords, The top 5 feature words are corporate social responsibility; literature review; shareholder value; mobile banking ; vietnam; The cluster #2 contains 57 keywords, The top 5 feature words are service failure; customer satisfaction; customer loyalty; halo effect; loyalty ; The cluster #3 contains 55 keywords, The top five feature words were brand attitude; customer retention; corporate image; brand equity; word of mouth; The cluster #4 contains 40 keywords, The top five extracted were corporate reputation; customer trust; purchase intention; marketing exchange; used clothes recycling; The cluster #5 contains 39 keywords, The top five feature words were sustainable practices; consumer; sustainable development; willingness to pay; luxury; The cluster #6 contains 37 keywords, The top 5 feature words extracted are brand identification; consumer-company identification; corporate associations; spectators; structural equation modeling ; The cluster #7 contains 35 keywords, The top 5 feature words are brand image; company credibility; food companies; company trust; intention to buy; The cluster #8 contained 34 keywords, and the top five feature words extracted were sustainable consumption; consumer behaviour; green marketing; food products; indulgence; The cluster #9 contained 27 keywords, and the top five feature words extracted were organizational commitment; consumer behavior ; customer citizenship behavior; brand preference; cause-related marketing.
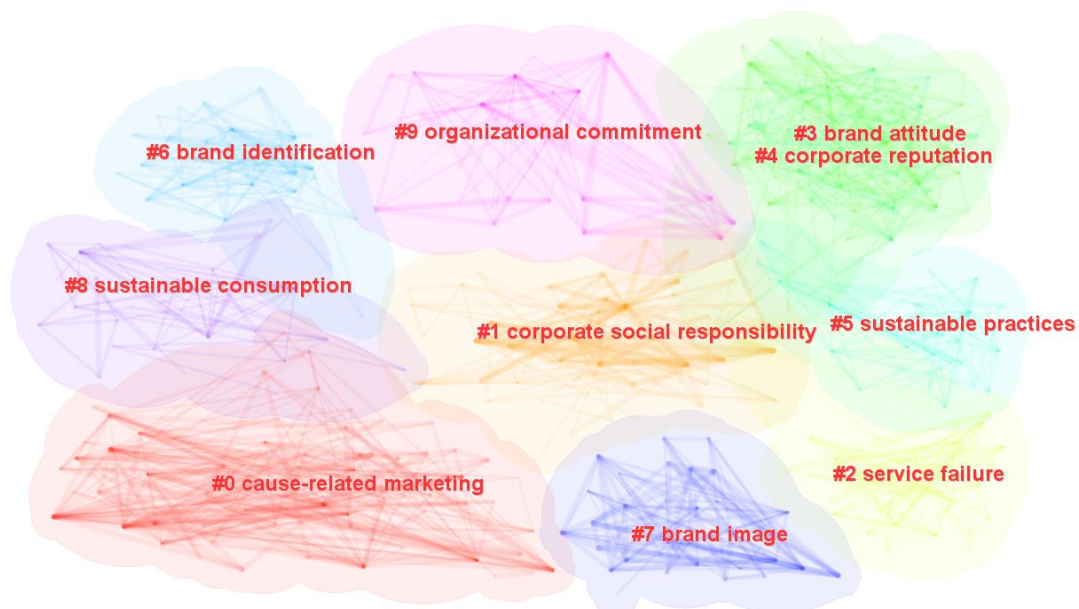

Figure 7. Keywords clustering network

Table 8
Cluster information

Cluster	Size	Silhouette	Top-term(LLR)
#0	68	0.514	cause-related marketing (11.31, 0.001); trust (8.24, 0.005); affective commitment (7.65, 0.01); nonprofit (7.28, 0.01); c-c identification (7.28, 0.01)
#1	59	0.695	corporate social responsibility (12.01, 0.001); literature review (10.74, 0.005); shareholder value (10.74, 0.005); mobile banking (10.74, 0.005); vietnam (7.16, 0.01)
#2	57	0.536	service failure (12.8, 0.001); customer satisfaction (11.07, 0.001); customer loyalty (9.15, 0.005); halo effect (8.54, 0.005); loyalty (7.38, 0.01)
#3	55	0.605	brand attitude (14.41, 0.001); customer retention (9.6, 0.005); corporate image (6.14, 0.05); brand equity (6.12, 0.05); word of mouth (4.87, 0.05)
#4	40	0.704	corporate reputation (21.99, 1.0E-4); customer trust (8.95, 0.005); purchase intention (4.86, 0.05); marketing exchange (4.79, 0.05); used clothes recycling (4.79, 0.05)
#5	39	0.657	sustainable practices (18.27, 1.0E-4); consumer (12.51, 0.001); sustainable development (8.17, 0.005); willingness to pay (6.82, 0.01); luxury (6.82, 0.01)
#6	37	0.623	brand identification (18.33, 1.0E-4); consumer-company identification (11.71, 0.001); corporate associations (9.4, 0.005); spectators' (9.4, 0.005); structural equation modeling (5.34, 0.05)
#7	35	0.828	brand image (10.73, 0.005); company credibility (8.9, 0.005); food companies (8.9, 0.005); company trust (8.9, 0.005); intention to buy (8.9, 0.005)
#8	34	0.62	sustainable consumption (18.64, 1.0E-4); consumer behaviour (12.42, 0.001); green marketing (6.54, 0.05); food products (6.51, 0.05); indulgence (6.51, 0.05)
#9	27	0.791	organizational commitment (12.12, 0.001); consumer behavior (12.04, 0.001); customer citizenship behavior (8.95, 0.005); brand preference (8.08, 0.005); cause-related marketing (5.92, 0.05)

Co-citation Analysis

Figure 8 mainly takes "Reference" as the node, and the Look BackYear sets 5 years to run for 5 years. The map has 724 nodes and 2787 connections. And the literature information of the top 5 is taken in Table 9 and 10. The literature co-cited network is closely connected, and the color changes in different regions reflect the temporal dimension of the literature."Corporate social responsibility as a determinant of consumer loyalty: An examination of ethical standard, satisfaction, and trust" is the most cited article in the field of CSR research and consumer satisfaction, A total of 41 citations, It was mainly published by Park E in 2017 in the high impact factor of (IF 2021) 10.969 journal International Journal of Business Research, The company's CSR commitment induces greater satisfaction with and

trust in the company and its services, which then ultimately encourages consumers to remain loyal. (Park et al., 2017)."
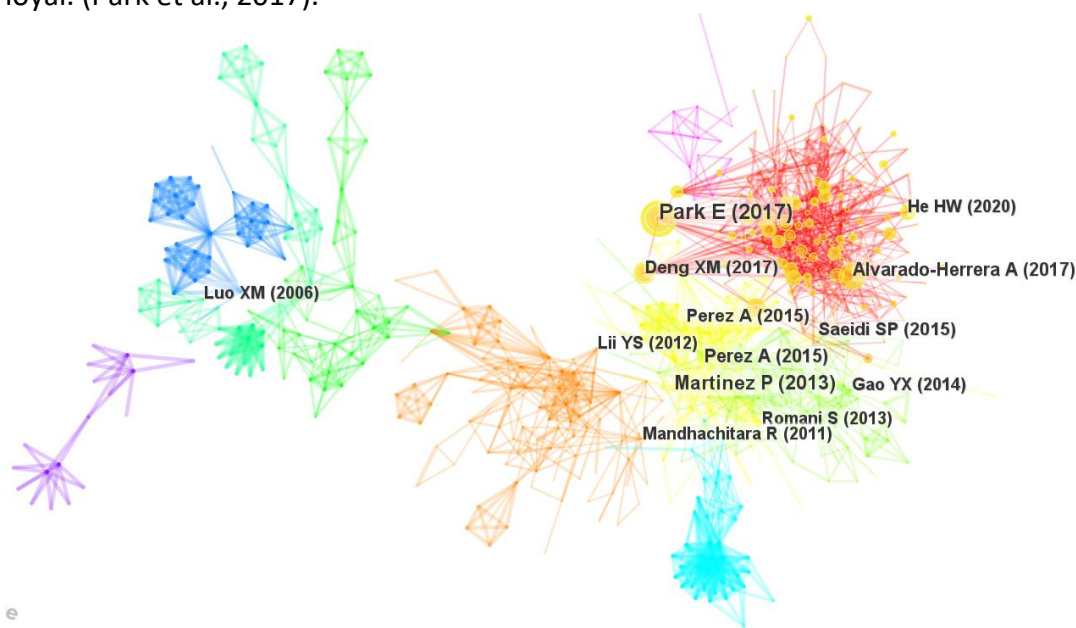

Figure 8. Co-citation Network

Table 9
High Co-citation literature ranking (Top 5)

Ranking	Title	Author	Journal	Frequency	Year
1	Corporate social responsibility as a determinant of consumer loyalty: An examination of ethical standard, satisfaction, and trust	Park E	International Journal of Business Research	41	2017
2	CSR and customer loyalty: The roles of trust, customer identification with the company and satisfaction	Martinez P	International Journal of Hospitality Management	29	2013
3	A Scale for Measuring Consumer Perceptions of Corporate Social Responsibility Following the Sustainable Development Paradigm	Alvarado-Herrera A	Journal of Business Ethics	23	2017
4	Corporate social responsibility and customer loyalty: exploring the role of identification, satisfaction and type of company	Perez A	Journal of Services Marketing	21	2015
5	How does corporate social responsibility contribute to firm financial performance? The mediating role of competitive advantage, reputation, and customer satisfaction	Saeidi SP	Journal of Business Research	20	2015

Table 10
High centrality Co-citation literature ranking (Top 5)

Ranking	Title	Author	Journal	Centrality	Year
1	The Role of Identity Salience in the Effects of Corporate Social Responsibility on Consumer Behavior	Marin L	Journal of business ethics	0.39	2009
2	CSR and customer loyalty: The roles of trust, customer identification with the company and satisfaction	Martinez P	International Journal of Hospitality Management	0.27	2013
3	CSR and Service Brand: The Mediating Effect of Brand Identification and Moderating Effect of Service Quality	He HW	Journal of Business Ethics	0.27	2011
4	Corporate social responsibility and customer loyalty: exploring the role of identification, satisfaction and type of company	Perez A	Journal of Services Marketing	0.17	2015
5	What We Know and Don't Know About Corporate Social Responsibility: A Review and Research Agenda	Aguinis H	Journal of Management	0.16	2012

Research Trend Analysis

Keyword mutations mainly use the explosive nature of keywords to study the frontier trend. Figure 9 is the Burst Detection function in software CiteSpace. In the process, the configuration detection model is mainly set from Minimum Duration to 2 year, γ to 0.8, and f (x) = $\alpha * e^{-\alpha x}$ (α_1/α_0=2.0,α_i/α_{i-1}=2.0). Begin and End in the map indicate the start and end times of the mutation, respectively, and the red part indicates the time span of the mutation.

As can be seen from the figure 9, the key word "empirical examination" began to change in 2003 and lasted to 2015, spanning 12 years. It is the longest and the largest mutational time, with a mutation intensity of 2.51, this shows that most of the research in this field is obtained through empirical verification, rather than just through a large number of literature statistics, which gives us a good inspiration in the research methods. The mutations of "mediating role (2020-2022, 4.35)" "brand image (2020-2022, 3.84) " "tourism (2020-2022, 3.59)" "brand trust (2020-2022, 3.17)" and "innovation (2020-2022, 2.72)" all continue up to now, which are the current research hot spot and future research trend.
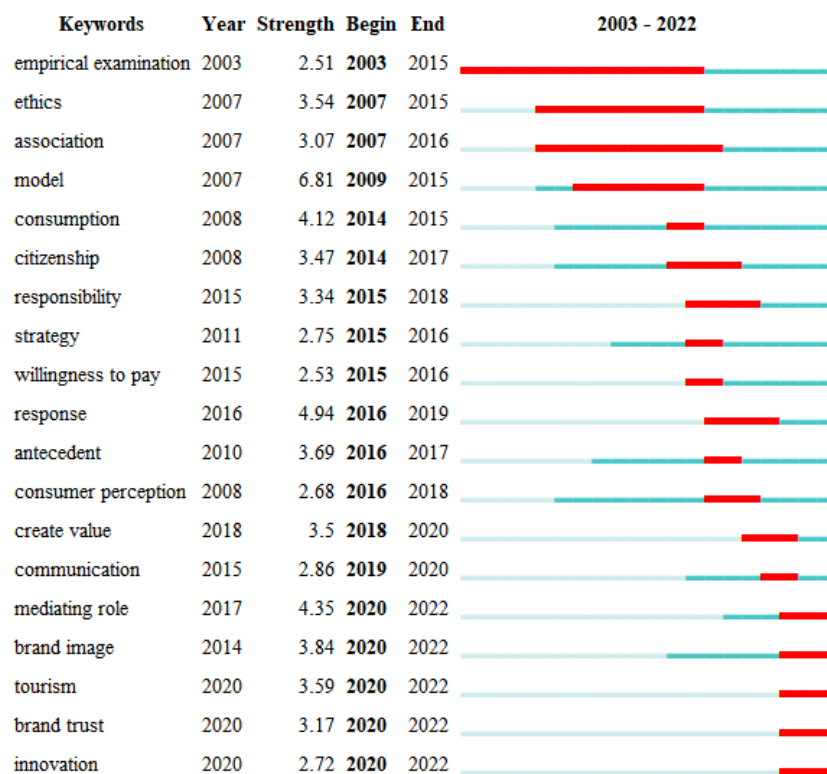
Top 19 Keywords with the Strongest Citation Bursts

Keywords	Year	Strength	Begin	End	2003 – 2022
empirical examination	2003	2.51	**2003**	2015	
ethics	2007	3.54	**2007**	2015	
association	2007	3.07	**2007**	2016	
model	2007	6.81	**2009**	2015	
consumption	2008	4.12	**2014**	2015	
citizenship	2008	3.47	**2014**	2017	
responsibility	2015	3.34	**2015**	2018	
strategy	2011	2.75	**2015**	2016	
willingness to pay	2015	2.53	**2015**	2016	
response	2016	4.94	**2016**	2019	
antecedent	2010	3.69	**2016**	2017	
consumer perception	2008	2.68	**2016**	2018	
create value	2018	3.5	**2018**	2020	
communication	2015	2.86	**2019**	2020	
mediating role	2017	4.35	**2020**	2022	
brand image	2014	3.84	**2020**	2022	
tourism	2020	3.59	**2020**	2022	
brand trust	2020	3.17	**2020**	2022	
innovation	2020	2.72	**2020**	2022	

Figure 9. Top 19 Keywords with the strongest citation bursts

Discussion and Conclusion

The data of this paper is from Web of science, focusing on consumer satisfaction research in the field of corporate social responsibility development and trends(2003-2022), using CiteSpace visualization software in the field of countries, institutions, authors, journals, keywords, literature cited multiple aspects such as visual analysis, a comprehensive combing and depth of mining the relevant literature, reveals the research status, hot spots and trend.

Research state of consumer satisfaction research in the field of corporate social responsibility

From the perspective of the number of publications, the international number of publications in this field shows an increasing trend. The number of documents moves exponentially along with the year, and the average annual number of publications is about 31.58, and the attention in this field is gradually increasing. Among them, USA has the most literature production, accounting for about 24.67% of the total literature, and Peoples R CHINA, Spain, South Korea, England, Australia, India, Pakistan, Malaysia and other countries are also relatively highly productive countries. Cooperation works closely between countries, with USA, Spain, China, England and Italy being the most influential countries in the field.

Among the publishing institutions, the Penn State Univ in the US is the highest productive institution, followed by the Univ Cantabria, Univ Valencia, Michigan State Univ and Sejong Univ, and it forms a relatively close cooperation relationship between the various institutions. The more influential institutions are Michigan State Univ, Penn State Univ etc. The research results of the above institutions have a great role and influence on the development of this field.

From the perspective of the published authors, the field has formed a good cooperative relationship, and presents the characteristics of the cooperative team mainly centering on high-yield authors or more influential authors. Among them, Mattila (2014) is the highest producing author in this field, with a very extensive research content, involving the relationship between consumer satisfaction and CSR motive (Gao & Mattila, 2014). Consumer response to service failure in buyer-seller relationships and CSR (Bolton & Mattila, 2015). "green" loyalty program and satisfaction (Liu & Mattila, 2016). The overall centrality is not large.

In terms of journals, the largest number of journals published was Sustainability (70), and the largest one was Journal of Retailing And Consumer Services (IF=10.972). The most cited journal was Journal of Marketing (510 times), The journals with large impact factors are Journal of Marketing (IF=15.36) and Journal of the Academy of Marketing Science (IF=14.904), The more central journals were Academy of Management Journal (0.12), Administrative Science Quarterly (0.07), and Corporate Communications(0.05).

Research hot spots and trends of CSR in developing countries

In terms of keyword co-occurrence and clustering, The key words of scholars in the field of corporate social responsibility research in developing countries are corporate social responsibility (csr), satisfaction, customer satisfaction, impact, loyalty, performance, consumer, trust, model, service quality, etc., company identification, financial performance, firm and so on are the most influential research keywords. The keyword clustering results were divided into # 0 cause-related marketing, #1 corporate social responsibility, # 2 service failure, # 3 brand attitude, #4 corporate reputation, #5 sustainable practices, #6 brand identification, #7 brand image, #8 sustainable consumption and #9 organizational commitment. Explows the research hot spot in the field mainly for the corporate social responsibility, service failure, brand attitude, corporate reputation, sustainable practices, brand identification, brand image, sustainable consumption and organizational commitment, etc.

From the perspective of literature citation, high citation and high centrality literature are published in journals with relatively high international influence, which have high reference value and academic influence. The research content of the high co-citation literature is mainly about corporate social responsibility and consumer loyalty (Park , 2017; Martinez, 2013; Perez , 2015), A Scale for Measuring Consumer Perceptions of Corporate Social Responsibility Following the Sustainable Development Paradigm (Alvarado-Herrera A, 2017), corporate social responsibility and financial performance (Saeidi, 2015).

In terms of keywords bursts, the "empirical examination" bursts lasts the longest time and is also the most mutant. Both the "mediating role" "brand image" "tourism" "brand trust" and "innovation" mutations continue to date, which are the research hot spots and trends at this stage. Kassinis and Soteriou collected data from frequent hotel guests in the United States to determine the impact of environmental, social, and economic dimensions of sustainable hotel supply chain management actions on customer attitudes and behaviors, including satisfaction, loyalty, and willingness to pay a premium for sustainable hotel goods and services. The results show that the social dimension of action has a positive effect on customer satisfaction and a negative effect on customers' willingness to pay a premium. At the same time, the results also mentioned that customer satisfaction has a complete mediating effect between social dimension behavior and customer loyalty (Kassinis & Soteriou, 2015). Su et al (2020) argued that environmentally responsible behavior (ERB) is critical to the long-term

success of tourist destinations. Based on the survey data of 522 Chinese tourists, the comprehensive tourist ERB model is empirically tested. The results show that destination eco-reputation has a positive impact on tourists' positive emotions and satisfaction, and a negative impact on tourists' negative emotions. Positive emotions have significant positive effects on tourist satisfaction, tourist recall and ERB. Conversely, negative emotions have a significant negative effect on these constructs. Martinez et al (2014) tested the study hypothesis by building a reflection structural equation model, using data collected from a sample of Spanish consumers who evaluated the top ten Spanish hotel chains operating in Latin America. The results show that CSR has a greater impact on the emotional dimension of brand image, while functional image has a greater impact on brand loyalty. In addition, CSR can be seen as having a direct positive impact on brand loyalty. Sun et al (2020) used the co-creation of the banking industry in Pakistan as an intermediary in their research to investigate the influence of corporate social responsibility on green consumer loyalty. Structural equation modeling was used to analyze the data. The results confirm that CSR improves consumer loyalty, and co-creation moderates this relationship to a certain extent. In addition, the Green Bank initiative further strengthens this relationship. Iglesias et al (2020) studied the impact of co-creation on customer trust. Based on data analysis of 1101 customers of health insurance service brands. The structural equation model was used to test the hypothesis. The results show that CSR directly and indirectly affects customer loyalty through co-creation and customer trust. However, indirect effects are the stronger of the two, which means that embracing co-creative activities and developing customer trust can make CSR practices easier to increase customer loyalty. In general, it can be seen from the above that the research field of CSR has broad prospects in terms of consumer satisfaction. In particular, through various empirical tests, the research on the influencing factors and intermediary factors between CSR and consumer loyalty is gradually increasing. In the future, the influence of brand image, brand trust, including word-of-mouth will become a research trend in this field.

Conclusion

This paper studies the status quo, hot spots and frontier trends of consumer satisfaction in the field of CSR research from 2003 to 2022, and gives important conclusions. From the current research situation, there are few researches on consumer satisfaction in the field of corporate social responsibility, the research depth is relatively limited, and there is a large research space. Countries, institutions and scholars should continue to maintain good cooperative relations and jointly promote the development of this field. The research topics are mainly reflected in the influence factors of CSR on consumer satisfaction, brand loyalty, brand attitude and brand reputation. Future research trends are mainly reflected in the analysis of mediating factors between CSR and consumer satisfaction, as well as the analysis of the relationship between brand trust and brand image.

Contribution

For theoretical contribution: from the current research situation, there are relatively few studies on consumer satisfaction in the field of corporate social responsibility (CSR). However, there is a clear upward trend, indicating that the research in this field is gaining more and more attention from researchers and academic journals. However, there is currently no unified, fixed, authoritative theory to explain the relationship and influence between CSR and consumer satisfaction. Through a summary and analysis of key words, it was found that related research belongs to interdisciplinary research and should integrate theories from

related disciplines such as social psychology, behavioral economics, and consumer behavior to explore the impact mechanism of CSR on customer satisfaction and construct a more complete and precise theoretical framework. In terms of research methods, there are relatively few articles using visualization analysis through Citespace software in this field. This can provide a more intuitive understanding of the research on consumer satisfaction in the field of CSR and provide more intuitive references for subsequent research.

For practical contribution: In terms of practical applications, combined with the results of visual analysis, specific management recommendations can be proposed to help companies improve customer satisfaction while enhancing their level of social responsibility. For example, companies should pay attention to the sustainable implementation of CSR, strengthen the focus on brand identity and brand attitude, and improve the quality of products and services. Companies should also strengthen their CSR promotion and improve their product and service quality. Visual analysis can also help companies and decision-makers discover relevant policies and market trends, and develop corresponding strategies to better meet customer needs and enhance the level of social responsibility of the company.

Limitations

In this study, CiteSpace software was used to visually analyze the relevant literature in the field of corporate social responsibility research in developing countries. The included Web of Science core collection database has high international authority, and the overall literature quality is high, but it can not ensure the comprehensiveness of the literature coverage. In addition, due to the certain threshold setting in the visualization process, which mainly reveals the main part of the field, the breadth of the research has some limitations.

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