Mapping the scholarly research on restaurants: a bibliometric analysis

REJEB, Abderahman, REJEB, Karim, ABDOLLAHI, Alireza, KAYIKCI, Yasanur <http://orcid.org/0000-0003-2406-3164> and APPOLLONI, Andrea

Mapping the Scholarly Research on Restaurants: A Bibliometric Analysis

Abstract:

Given the recent surge in restaurant research, there is a need for timely reviews employing quantitative methods to portray the intellectual structure of the field. This paper aims to address this gap by conducting a comprehensive bibliometric analysis of restaurant research on the Web of Science database. The research investigates the dynamic evolution of the restaurant literature during three critical stages between 1995 and 2021. Based on 1146 journal articles published by 1849 authors, the paper analyzes different bibliometric networks, including co-citation, keyword co-occurrence, and collaboration networks. The study additionally highlights the most influential scholars and publications in the restaurant field. Results indicate that restaurant research has grown exponentially over the last five years. Findings also show that consumer behavior, consumer satisfaction, consumer-brand relationships, corporate social responsibility, and green restaurants represent the contemporary hotspots in restaurant research. Finally, the study provides practical implications and some opportunities for future research.

Keywords: Restaurant; Consumer Behavior; Consumer Satisfaction; Bibliometric; Foodservice

1. Introduction

Eating is an essential activity of human beings (Capaldi, 1996; Kauppinen-Räisänen et al., 2013). Hence food-related research attracted scholars' attention in many fields (Okumus et al., 2018). Restaurant research, as one of the most interesting related topics, has witnessed significant growth (Chuah et al., 2021a; K.-N. Liu et al., 2020; Rajput & Gahfoor, 2020) alongside the evolvement of the hospitality and tourism research disciplines (R. DiPietro, 2017; Okumus et al., 2018; Rodríguez-López et al., 2020). Scholars from various disciplines have contributed to the restaurant research strand. This multidisciplinary field has been evolved, examined, and investigated from various perspectives, including marketing, advertising, and branding (Halim & Halim, 2019; J. Kim et al., 2018; Kwon et al., 2020; K.-N. Liu et al., 2020), healthcare (Allman-Farinelli et al., 2019; An et al., 2020; Moayyed et al., 2017), consumer behavior (Anggraeni et al., 2020a; S. Lin & Jiang, 2021; Rajput & Gahfoor, 2020; C.-C. Teng et al., 2018, 2018), strategic management, supply chain management, firm performance and entrepreneurship (C. Lee et al., 2016; W. S. Lee et al., 2018; W. S. Lee & Moon, 2018, 2018; Shanker et al., 2021), sustainability and corporate social responsibility (Y. J. Jang & Zheng, 2020; Jung, Kim, et al., 2018a, 2018a; S. Lee et al., 2020; Y.-M. Teng & Wu, 2019), social media research (W.-K. Chen et al., 2021; W. G. Kim et al., 2016; Lepkowska-

White, 2017; Yarış & Aykol, 2021), and innovation and technology (Blöcher & Alt, 2020; Chuah et al., 2021a; Halim & Halim, 2019; N. R. K. Jain et al., 2021; C. Lee et al., 2019; Moreno & Tejada, 2019).

Recently, there have been efforts to summarize the restaurant literature. For example, DiPietro (2017) critically reviewed the restaurant and foodservice domain using qualitative methodology to reveal research gaps and prospects. Furthermore, Rodríguez-López et al. (2020) summarized the knowledge surrounding restaurant research between 2000 and 2018 using bibliometric techniques. In this fast-developing research area, the study of Rodríguez-López et al. (2020) is more likely to be outdated since it examined articles published until 2018. Moreover, the authors mainly focused on comparing previous and newer themes related to the domain and identifying emerging trends based on a longitudinal approach. Their analysis has not explored citation networks as one of the significant drivers of bibliometric analyses. When a research domain witnesses a surge in publications, as in restaurant research (Chuah et al., 2021a; K.-N. Liu et al., 2020; Rajput & Gahfoor, 2020), there is a need for systematic and organized reviews that employ quantitative methods to portray the intellectual structure of the field (Rejeb, Rejeb, Simske, & Treiblmaier, 2021; Rejeb, Abdollahi, et al., 2022). This would aid in depicting the knowledge structure, highlighting hot topics, examining current status, revealing research gaps, potential prospects, research frontiers, and priorities, and identifying the field's different foci or paradigms (García-Lillo et al., 2019). As a result, the current study aims to conduct a timely and comprehensive bibliometric analysis of restaurant research.

The need for such a comprehensive, structured review is sensed for the following reasons. First, the knowledge of restaurant research should be updated periodically (Ferreira et al., 2014). Knowledge Domain Visualization (KDV) could complement the previous efforts by providing a variety of analyses such as Bradford's law, source growth, the frequency distribution of scientific productivity, word growth, Sankey diagram, multiple correspondences, and thematic/strategic map analyses to reveal the big picture and knowledge structure of restaurant research (Bouzembrak et al., 2019; Gaede & Rowlands, 2018; García-Lillo et al., 2019; Mostafa, 2020; Zhu & Hua, 2017). Second, new insights can be derived from this study by using various clustering techniques such as co-citation and keywords co-occurrence analyses, collaboration networks, trend analyses, and the examination of the conceptual and thematic structure, which are mainly overlooked in previous studies.

Third, we visualized the whole body of academic work retrieved from the Web of Science (WoS) on restaurant research, referred to as scientography or knowledge domain visualization (KDV) (Moya-Anegón et al., 2007). KDV is a relatively novel and robust method that combines bibliometrics and scientometrics

to illustrate the whole body of knowledge and uncover hidden patterns, emerging trends, and research frontiers in a given subject (García-Lillo et al., 2019; Qi et al., 2018; Zou et al., 2018). By employing this quantitative technique, we can bridge the knowledge gap in restaurant studies by examining the entire research domain. Our analysis can shed light on the critical research foci and paradigms that shape restaurant research. It also reveals the most influential and prominent researchers, institutions, journals, and nations, as well as their collaborative networks. Additionally, with various keyword analysis techniques, the restaurant discipline and research horizons may be better appreciated. Our study contributes considerably to the multidisciplinary and rapidly increasing area of restaurant research by illuminating the dynamics between the numerous foci of this knowledge field and establishing the groundwork for future academic inquiries. To be more explicit, the following research questions drive our conduct of the study:

1. How far has restaurant research evolved since the beginning?

2. What is the current state or thematic trends of restaurant research?

3. Which countries contribute the most to the geographical expansion of restaurant-related literature?

4. Which authors and publications have had the most significant influence on restaurant research?

5. What type of collaboration exists in restaurant research amongst researchers, academic institutions, and countries?

6. What are the critical research hotspots regarding the restaurant domain?

The remainder of the article is organized in the following manner. Section 2 describes the research methodology utilized to conduct the analysis, and Sect. 3 discusses the study findings. Finally, Sect. 4 presents the research contributions, implications, limitations, and potential future directions.

2. Research method

2.1. Bibliometric Analysis

Bibliometrics was first theorized in 1969, and its conceptualization was published in the Journal of Documentation (Pritchard, 1969a). Bibliometrics starts with a statistical dive into publications' metadata (Broadus, 1987). Publications linked to certain phenomena are the primary target of its attention. Bibliometrics is the study of a field's growth and development by analyzing its scholars' scholarly output

through time. It relies on a quantitative investigation of cited publications in a strand of research. The prominence of individual scientific articles in a given topic is affected by their citation count and the number of links they have with other works (Culnan et al., 1990; Garfield, 1979; Small, 1973). Many large datasets may benefit from the statistical and mathematical methods employed in bibliometric research, which is used to summarize and discover previously undiscovered trends in written communication and the development of a topic (Tahai & Rigsby, 1998; Small, 1999; Pritchard, 1969b). This method illustrates the intellectual essence of a subject area (Arora & Chakraborty, 2021; Rejeb, Rejeb, Abdollahi, et al., 2022) and the current state of the field, as well as hotspots and prospective future research directions that could be sought by using this methodology (Kapoor et al., 2018; Mishra et al., 2017; Rejeb, Abdollahi, et al., 2022; Rejeb, Rejeb, Zailani, et al., 2022).

While conventional reviews essentially summarize the prior literature based on researchers' judgments, which may be vulnerable to several types of biases, bibliometric studies add rigor owing to their structured and quantitative examination of publications. Indeed, this rigor can be seen as the primary contribution of the methodology (Piwowar-Sulej et al., 2021). Furthermore, the main benefit of bibliometrics, as contrasted to traditional review methods, is that it permits the development of reliable, impartial, thorough, and complete scientific maps. Such maps represent analytical representations of relationships between scientific entities based on the links between these objects (Y. Zhang et al., 2020). The advantages of scientific mapping also include analyzing huge datasets and producing rich, memorable, and interpretable visuals (J. Jain et al., 2021; Zainuldin & Lui, 2021). As a result, adopting bibliometrics offers an unbiased, timely, and visual technique to track the growth and assess the intellectual structure of a specific scientific domain. It not only allows to understand the historical development of a knowledge field but also reveals research hotspots and trends from macro and micro perspectives (L. Li et al., 2017).

2.2. Research Process

The bibliometric analysis is conducted in four stages following the guidelines of Fosso Wamba and Mishra (2017). We followed these steps:

(1) Identifying the search database and keywords

(2) Conducting preliminary data analysis

(3) Performing network analysis

(4) Carrying out thematic and conceptual analysis

The analysis was conducted using R 3.2.3 and the VOSviewer software (Eck & Waltman, 2010; van Eck & Waltman, 2011). The following sections provide details on the review's methodology.

2.3. Search database and keywords

Restaurant-related publications were collected from the Web of Science (WoS). Due to its extensive coverage and good quality, this database is frequently chosen for bibliometric investigations (Fu et al., 2013). While a few researchers have used Scopus to do similar analyses (Jayantha & Oladinrin, 2019), recent studies have revealed that the bulk of bibliometric articles uses the WoS database (Cuccurullo et al., 2016; Zupic & Čater, 2015). To eliminate false-positive results, only publications' titles were searched using the term "restaurant" OR "restaurants." A recent study recommended the search in the title field because it reduces loss of sensitivity (Aleixandre et al., 2015). We restricted selection to English-speaking publications and did not select any starting date. The study included only journal articles and reviews to ensure the scientific nature and excellent quality of retrieved papers (Ramos-Rodríguez & Ruíz-Navarro, 2004; Rejeb, Rejeb, Simske, & Keogh, 2021). The number of documents was systematically reduced by restricting the subject areas to Hospitality Leisure Sport Tourism and Management or Business in the WoS database. This helped avoid discrepancies in research outputs, assure a more in-depth investigation of the restaurant field, and allow better generalizability and systematization (Filimonau & Krivcova, 2017). As such, selecting precise subject areas ensures that the review focus is concise and relevant (Goodall et al., 2014). Overall, the use of these filters and the manual screening of all the publications' metadata to eliminate irrelevant documents have led to the selection of 1146 articles for the final review and analysis.

2.4. Preliminary data analysis

We obtained bibliographic data such as authors' names, publication titles, abstracts, and keywords. The 1146 articles authored by 1849 researchers were obtained via the WoS database. The collaboration index was 1.75, and the average article about restaurants was quoted 25.3 times. Proposed by Ajiferuke et al. (2005), the collaboration index represents a single indicator based on the estimation of fractional productivity (De Solla Price & Beaver, 1966), where a value around zero implies domination of single-authored publications. It should be emphasized that choosing a particular type of publication for bibliometric reviews is disputed in the meta-analysis literature (Mostafa, 2015). For instance, while some researchers concentrate exclusively on journal articles (Della Corte et al., 2019; Rejeb, Rejeb, Simske, & Keogh, 2021), others focus on both peer-reviewed articles, books, and chapters (Aryadoust & Ang, 2021). In this work, we chose only peer-reviewed journal articles as this ensures high-quality restaurant research.

2.5. Network analysis

According to Knoke and Yang (2019), a network is a collection of nodes connected via one or more relationships. An edge or link (a line connecting two nodes) represents a relationship in social network research. As more data is acquired, the network evolves from a dyadic interaction between two nodes to a fully complete social network. By synthesizing the existing literature, network analysis helps reveal exciting trends and potential research areas and promotes theory development (Khan & Wood, 2016). To conduct the study, we take into account the network size (i.e., total number of nodes), diameter (i.e., the longest path length in the network), and density (i.e., the degree of interconnectedness in the network). By and large, bibliometric investigations make extensive use of network analysis tools. These are examples of keywords co-occurrence, collaboration, and co-citation networks between articles and sources.

In a co-citation network, two articles, for example, A and B are co-cited if both are cited by a third article like C. When two articles are frequently mentioned together, there is a greater likelihood that they have related viewpoints to be considered in the same research paradigm (Benckendorff, 2009; Hjørland, 2013). As a result, co-citation is seen as a measure of the content similarity between scholars or publications, as the greater number of co-citations in documents convey the more remarkable semantic similarity between articles. The similarity does not mean the same findings (Shiau et al., 2017). The publications may report confirming or disconfirming results. Co-citation analysis facilitates the identification of prominent researchers and relevant journals, as well as the mapping of a field's knowledge domain. Additionally, analyzing the growth of co-citations can aid in appreciating a knowledge domain's dynamic progress and catching emerging disciplines and paradigmatic transitions in science (Fang et al., 2018; Rejeb, Keogh, et al., 2020; Rejeb, Simske, et al., 2020). When constructing a co-citation network, an edge connects a pair of nodes (i.e., authors or publications) if a different node simultaneously cites them.

Based on Huang et al. (2020), a journal co-citation study determines how frequently the same publication cites various journals. The analysis of journal co-citations enables scholars to ascertain the intellectual foundations of a field of study in which journals can be regarded as a primary means to transfer knowledge (C. Chen et al., 2012). Similarly, the journal co-citation network effectively quantifies the linkage between journals (Wang et al., 2020) and highlights scholarly patterns (Chandra & Walker, 2019).

Academic collaboration networks can be analyzed at various levels, including individual authors, academic institutions, and countries (Rejeb, Treiblmaier, Rejeb, & Zailani, 2021). Co-authorship analysis is an essential tool for distributing research, spreading knowledge, and improving the quality of research (Zou et al., 2018). Co-authored works, as suggested, are more likely to get published in high-impact journals

and to receive more citations (Glänzel & Schubert, 2005). For example, Ding (2011) argues that while collaboration among scholars benefits knowledge transmission and information exchange, collaboration among research institutions has many benefits, including developing international research partnerships. Finally, keyword co-occurrence analysis sheds light on the numerous research paradigms that contribute to advancing knowledge in a particular domain (Abdollahi et al., 2021). Additionally, this relational bibliometric technique is useful and valuable for content analysis, providing a comprehensive view of the study field and its future orientations (Rejeb, Simske, et al., 2020).

2.6. Analysis of the intellectual structure and trend topics

A thematic map is a diagrammatic representation of the evolution and dynamics of research clusters identified by keyword co-occurrence analysis (Chakraborty et al., 2021). Based on density and centrality metrics, this map depicts study themes and their relationships (Stopar, 2016). Numerous academics (e.g., Yu & Muñoz-Justicia, 2020; Della Corte et al., 2019; Knapczyk et al., 2021; Fortuna et al., 2020; Armenta-Medina et al., 2020) believe that due to their significance and ease, thematic maps have been widely utilized in bibliometric research. The conceptual base of a knowledge domain can be depicted using conceptual structure maps, in which a research domain is subdivided into distinct knowledge clusters to acquire a unique understanding of the information within each cluster (Wetzstein et al., 2019). The conceptual structure map obtained from the application of k-means clustering and multiple correspondence analysis (MCA) exposes the keywords in a two-dimensional diagram, where the nearer position of the keywords is illustrated since they are more similar in distribution considering their homogeneity within the network (Aria & Cuccurullo, 2017). This form of keyword co-occurrence analysis is mainly applied within this study to highlight the most relevant keywords, the relationships between them, and new research trends in the examined literature (Y. Zhang et al., 2017). Finally, a trend topics analysis is carried out to identify in which years the main topics generated by keyword analyses stood out (Unal & Teskereci, 2021).

3. Results

3.1. Scholarly production, influential authors, and geographic distribution

We have adopted different techniques to map the progress of restaurant research since its inception in 1995. Following the study of Della Corte et al. (2019), we answered the first research question related to the evolution of restaurant research by tracing its growth over the years. Figure 1 depicts the annual

academic production of restaurant research. During the introductory stage, from 1995 to 2006, research was limited; only two journal articles were published in 2006 compared to one in 1995. Since 2007, restaurant research has attracted researchers' attention. The second phase, recorded from 2007 to 2014, can be viewed as a starting growth stage characterized by a rising number of articles and the emergence of several restaurant-related research topics. The final stage, spanning from 2015 to 2021, shows a substantial increase in the number of publications compared to the previous two stages. Consequently, the evolution of restaurant research throughout the three periods is comparable to other research fields such as green supply chain management (Fahimnia et al., 2015), emergency evacuation (H. Liu et al., 2020), and road safety works (Zou et al., 2018).

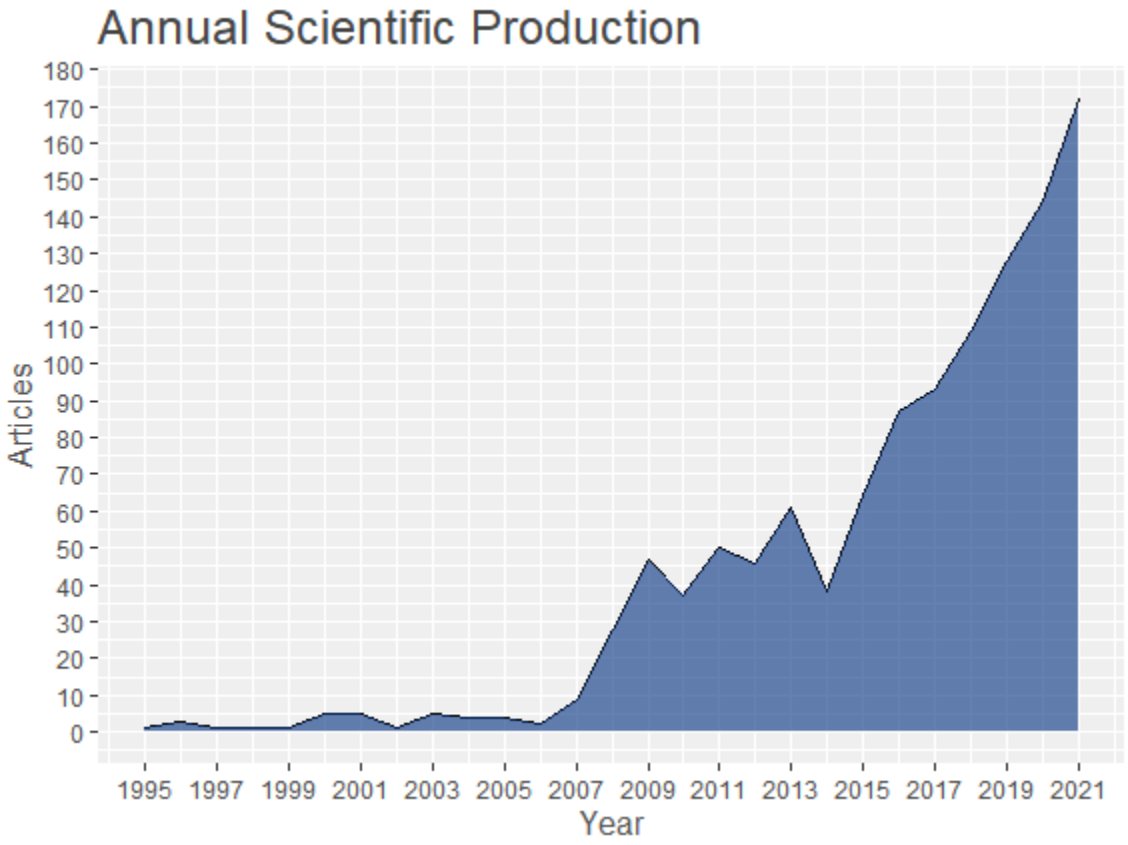

Figure 1. Annual scholarly production of restaurant research (1995-2021).

The academic literature on restaurants has increased significantly throughout the last recent decade, which is indicated by the number of nations taking part in this research field (Figure 2), the top 10 most influential publications (Table 1), and the most relevant sources (Figure 3). Figure 2 depicts the article

distribution of the most productive countries, totaling 962 percent of the selected sample. Undeniably, the most productive country is the USA (477, 41.87%) in terms of the number of papers from single-country articles, and it ranks second in terms of international collaborations. The total numbers of articles for China, South Korea, the UK, Australia, Spain, and Turkey are 160 (14.04%), 154 (13.52%), 43 (3.77%), 30 (2.63%), 27 (2.37%), and 25 (2.19%), respectively. The number of publications can somewhat reflect these countries' research level and academic influence. Overall, countries from both developed and developing worlds have made notable progress in restaurant research and have contributed significantly to this field, primarily due to the fast development and globalization of the restaurant industry (Y.-S. Cheng et al., 2021).

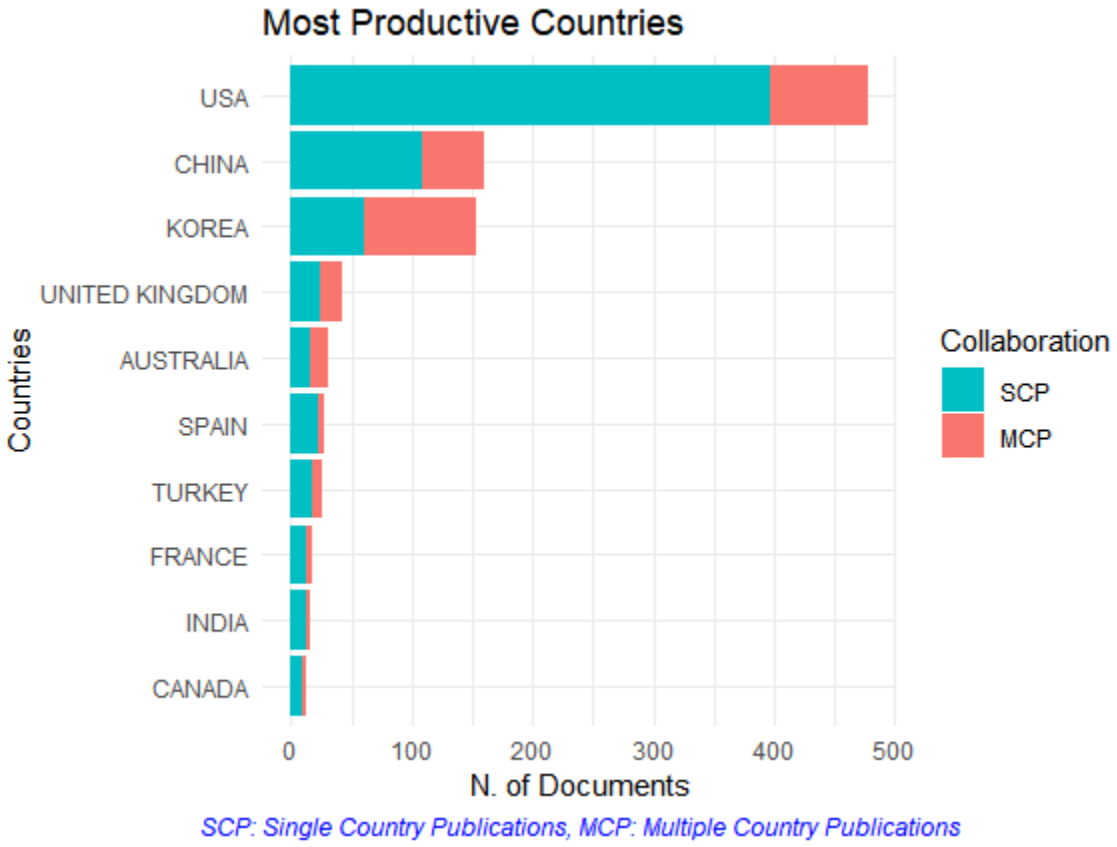

Figure 2. Most productive countries in restaurant research.

The list of the top ten most cited papers is presented in Table 1. The most cited article (516 citations at the data date) is authored by Jang and Namkung (2009), who expand Mehrabian and Russel's stimulus-organism-response framework by considering restaurant-specific stimuli and restaurant-specific measures of emotions. According to the authors, positive emotions mediate the relation between services/atmospherics and potential behavioral outcomes. The second most cited article is authored by

Ryu et al. (2012), who suggest an integrated model that explores the impact of the physical environment, food, and service on behavioral intentions, customer satisfaction, customer perceived value, and restaurant image. The findings of their study indicate that the quality of the physical environment, services, and food were essential determinants of restaurant image. Similar to Ryu et al. (2012), Han and Ryu (2009b) study the role of the physical environment, price perception, and customer satisfaction in influencing customer loyalty in the restaurant sector. The third most cited article is published in the Journal of Consumer Research, and it explains how the success and popularity of fast-food restaurants delivering lower-calorie foods has not yielded the expected drop in overall calorie consumption and obesity rates (Chandon & Wansink, 2007). In the same vein, Kozup et al. (2003) conducted three experiments to analyze the impacts of nutrition information and health claims placed on packaged food labels and restaurant menus. Their results show that when positive health claims and nutritional information are offered, customers have more favorable views about nutrition attitudes, the product, purchase intentions, and lower risk perception of stroke and heart disease. All papers listed in Table 1 make remarkable contributions to advancing restaurant research. Out of the ten most cited articles, six were published in tourism and hospitality journals, indicating that these journals are of great importance in the restaurant field. Besides these authoritative journals, marketing and business journals stand out with few influential works, suggesting that these outlets do not have a specific focus but vary in the scope of the papers they publish.

Table 1. Top 10 most cited publications.

Authors	Title	Source	Year	Total Citations (TC)	TC per Year
(S. (Shawn) Jang & Namkung, 2009)	Perceived quality, emotions, and behavioral intentions: Application of an extended Mehrabian-Russell model to restaurants	Journal of Business Research	2009	516	36.8571
(Ryu et al., 2012)	The influence of the quality of the physical environment, food, and service on restaurant image, customer perceived value, customer satisfaction, and behavioral intentions	International Journal of Contemporary Hospitality Management	2012	510	46.9091
(Chandon & Wansink, 2007)	The biasing health halos of fast-food restaurant health claims: Lower calorie estimates and higher side-dish consumption intentions	Journal of Consumer Research	2007	439	27.4375

(Kozup et al., 2003)	Making healthful food choices: The influence of health claims and nutrition information on consumers' evaluations of packaged food products and restaurant menu items	Journal of Marketing	2003	409	20.45
(Bradach, 1997)	Using the plural form in the management of restaurant chains	Administrative Science Quarterly	1997	366	14.0769
(Z. Zhang et al., 2010)	The impact of e-word-of-mouth on the online popularity of restaurants: A comparison of consumer reviews and editor reviews	International Journal of Hospitality Management	2010	360	27.6923
(Han & Ryu, 2009b)	The roles of the physical environment, price perception, and customer satisfaction in determining customer loyalty in the restaurant industry	Journal of Hospitality & Tourism Research	2009	346	24.7143
(C. H.-J. Wu & Liang, 2009)	Effect of experiential value on customer satisfaction with service encounters in luxury-hotel restaurants	International Journal of Hospitality Management	2009	331	23.6429
(Ryu et al., 2008)	The relationships among overall quick-casual restaurant image, perceived value, customer satisfaction, and behavioral intentions	International Journal of Hospitality Management	2008	331	22.0667
(H. Kim & Kim, 2005)	The relationship between brand equity and firms' performance in luxury hotels and chain restaurants	Tourism Management	2005	293	16.2778

From Figure 3, we observe that the most influential venues publishing restaurant research include journals such as the International Journal of Hospitality Management, the International Journal of Contemporary Hospitality Management, and the Journal of Hospitality and Tourism Management. Figure 3 depicts the dynamic growth of outlets publishing restaurant research. From the chart, the period between 2005 and 2021 observed a significant increase in articles published in the International Journal of Hospitality Management and the International Journal of Contemporary Hospitality Management. Therefore, these two journals constitute most of the works published in the restaurant field. As a result, restaurant research tends to be fairly hermetic and perhaps receives little contribution beyond the core research area. Even though there are a few journals from other disciplines that publish restaurant research (e.g., marketing, business, management) (Table 1), tourism and hospitality outlets remain the leading journals in the restaurant field and are more likely to attract researchers producing high-quality research, thus presumably reflecting the current trends of scholarly interest.

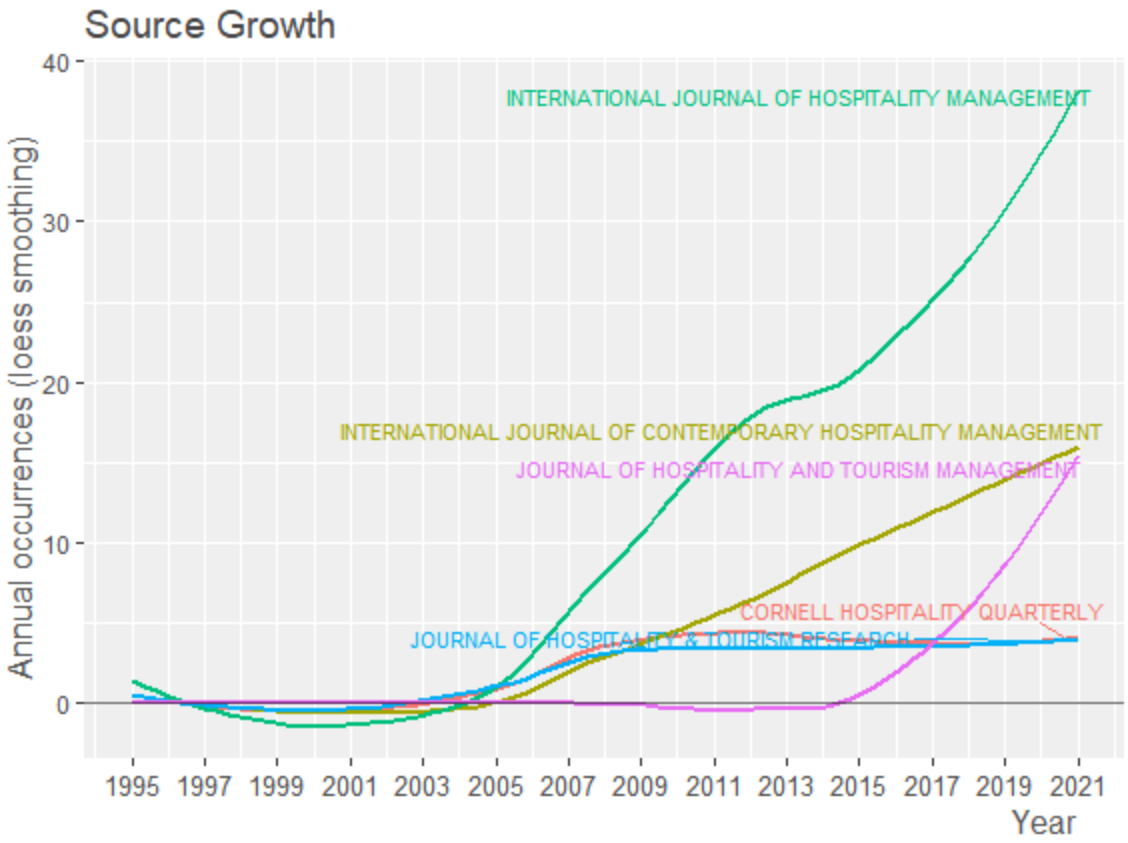

Figure 3. Most relevant sources publishing restaurant research (1995-2021).

We used the author's dominance map to investigate the most productive authors during the reviewed research period. Figure 4 shows the top ten authors over time. The size of the bubbles demonstrates the number of articles that an author published in that particular year, and their color depicts the number of citations that the author received. Authors from different disciplines such as tourism and hospitality (e.g., Soocheong Jang, Seeoki Lee, Heesup Han), foodservice (e.g., Robin B. DiPietro), service marketing (e.g., Anna S. Mattila, Young Namkung), and sociology (e.g., Zachary W. Brewster) have contributed to the restaurant field. As can be seen from Figure 4, the most influential authors in the restaurant field are SooCheong Jang from 2008 to 2021 and Seeoki Lee from 2009 to 2021. This review's findings confirm the conclusion of Rodríguez-López et al. (2020) in that these two authors were the most prolific researchers in the restaurant field. The results of this research demonstrate that these scholars play a crucial role in shaping the field's research agenda, with a specific emphasis on several aspects of restaurant research, including franchising, performance, consumer behavior, corporate social responsibility, advertising, and authenticity. The figure also depicts that scholars like Meehee Cho (Kyung Hee University) have notably

contributed to restaurant-related studies in recent years, and their work is rapidly garnering more attention.

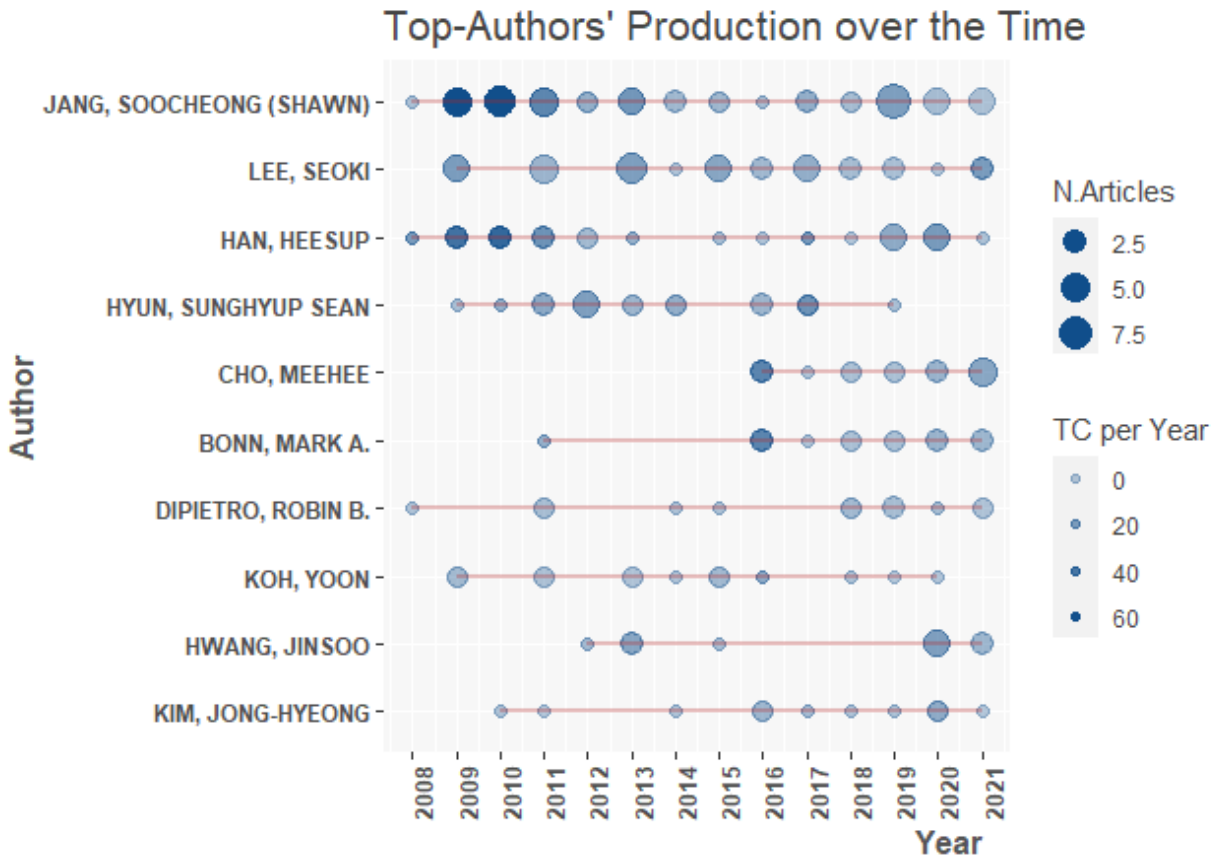

Figure 4. Top authors in restaurant research over time.

To investigate the concentration and evenness of authors' scholarly output, several bibliometric reviews have applied Lotka's law (Lotka, 1926) and Shannon entropy (Shannon, 1948). Being more popular and broadly used, Lotka's law suggests that the authors' productivity can be modeled by a Zipfian distribution where the proportion of the number of authors producing a certain number of publications to single-publication authors equals two. The results of the Kolmogorov-Smirnov two-sample test for the fitted and observed Lotka's distributions indicate that the B coefficient, the goodness of fit, and the p-value were equal to 2.03, 0.87, and 0.21, respectively. The results also prove no significant difference between the theoretical and observed distributions. Furthermore, the long tail for the single-publication authors, depicted in Figure 5, suggests that some researchers have been exploring restaurants as a subordinate

research topic. The findings confirm the validity of Lotka's law in restaurant research at a significance level of $\alpha = 0.05$, and align the results of previous studies in diverse domains like marketing (Vieira & Brito, 2015), business ethics (Talukdar, 2015), accounting (Corbet et al., 2019), and risk management (Chun-Hao & Jian-Min, 2012).

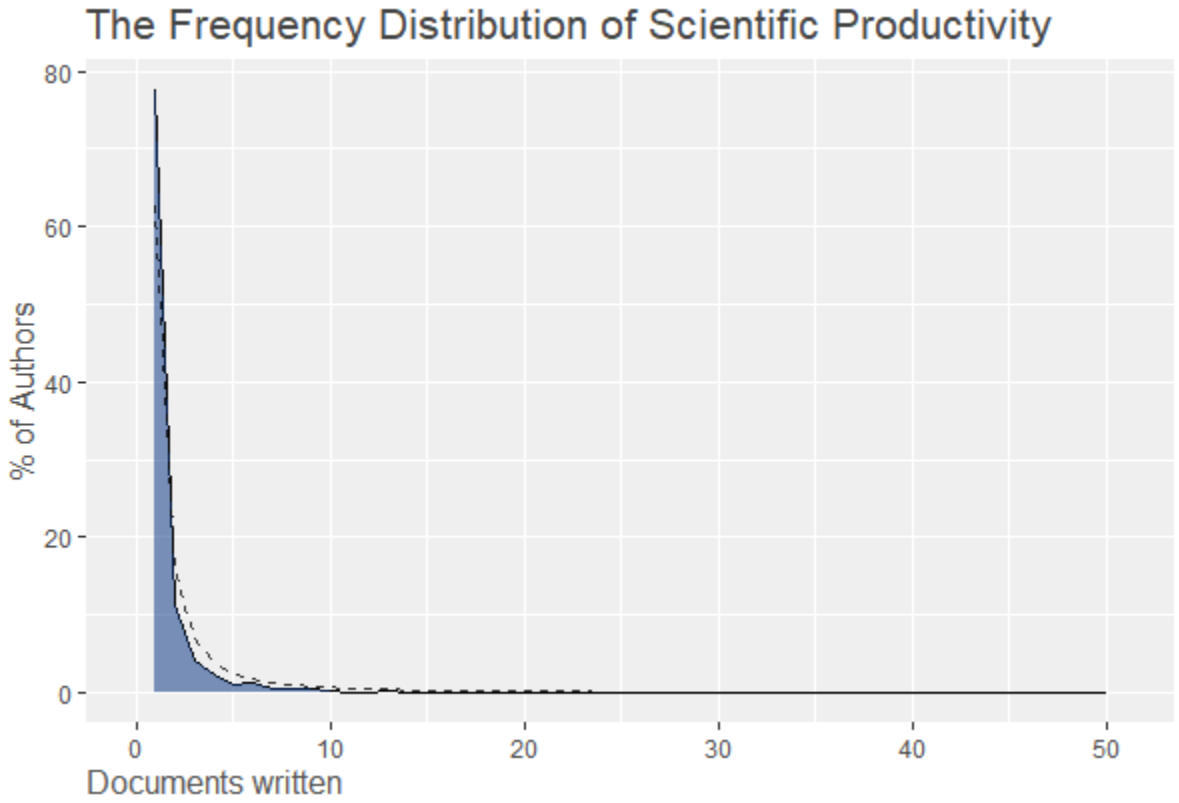

Figure 5. The correlation of the restaurant research dataset with Lotka's law.

3.2. Network analysis

3.2.1. Citation networks

As one of the most widely used data analysis techniques, citation analysis is a reasonable indication of an author's effect since scholars perceive citations as a critical sign of the value and relevance of a published article (Glynn et al., 2010). Citation analysis, for example, may be used to associate an author with a specific research subject, approach, method, or field (Cho et al., 2018). Similarly, citation analysis aids in the evaluation of scholarly contributions and data sources, as well as in the investigation of literature usage, the tracking of knowledge diffusion, the facilitation of information representation and extraction, and the elucidation of the intellectual structure of a specified domain. Previously, citation-based analyses have been used to identify popular content and methodologies (Pieters & Baumgartner, 2002), investigate

the relationships between academic journals (Doreian, 1988), assess a relationship with a particular research stream (Leydesdorff, 2006), and identify critical theories (van der Merwe et al., 2007) or authors (Pasadeos et al., 1998). The details of the most productive and influential authors in restaurant research are presented in Table 2. According to the table, Soocheng Jang, Heesup Han, Seoki Lee, and Kisang Ryu were notable scholars in developing restaurant research. These scholars are well-positioned in journals such as the International Journal of Hospitality Management and International Journal of Contemporary Hospitality Management, which is popular and influential outlets in the field of restaurant research. Given that the contribution of prominent authors constantly stimulates fresh avenues for future research, the journals' editorial boards may be interested in inviting these scholars to submit their works, thus increasing the visibility of the scientific field.

Table 2. Most productive and influential authors

Author	Number of articles	Author	Total citations
Jang, Soocheong (Shawn)	51	Jang, Soocheong (Shawn)	2816
Lee, Seoki	38	Han, Heesup	2369
Han, Heesup	26	Ryu, Kisang	2187
Hyun, Sunghyup Sean	19	Hyun, Sunghyup Sean	1035
Cho, Meehee	16	Namkung, Young	1019
Bonn, Mark A.	15	Lee, Seoki	953
Koh, Yoon	13	Kim, Woo Gon	670
Dipietro, Robin B.	13	Ha, Jooyeon	651
Hwang, Jinsoo	12	Law, Rob	581
Ryu, Kisang	11	Kim, Woon Gon	516
Kim, Woo Gon	11	Lee, Hye-Rin	516
Kim, Jong-Hyeong	11	Zhang, Ziqiong	491
Namkung, Young	10	Bonn, Mark A.	462
Kim, Wansoo	10	Burton, S	458
Mattila, Anna S.	10	Creyer, Eh	458
Almanza, Barbara	10	Chandon, Pierre	439
Brewster, Zachary W.	10	Wansink, Brian	439
Hanks, Lydia	9	Kozup, Jc	409
Hwang, Johye	9	Back, Ki-Joon	402
Line, Nathaniel D.	9	Kang, Juhee	394

We generated the historiographic map of core restaurant-related publications. This bibliometric technique makes it feasible to trace the development of a discipline across time and determine paradigm shifts within its progress (Garfield et al., 2003). According to Kuhn (2021), paradigm shifts are unique turns

in the evolution of academic literature when novel ideas in a scholarly topic transcend established ways of thinking. Consequently, we conducted a historiographic citation analysis to identify the articles that significantly influenced restaurant research progress. The historiographic map is generated to identify publications that added knowledge to a given research field and display the reasoning chains (Wong, 2021). The technique is relatively novel and has been applied lately to investigate the evolution of leadership management (Vogel et al., 2021) and big data research (Batistič & van der Laken, 2019). The historical direct citation network of restaurant research is shown in Figure 6 and depicts an intricate network with three clusters. The papers of Wall and Berry (2007) and Gupta et al. (2007) represent the most influential publications in restaurant research during the early years.

In the former, the authors investigate the combined impacts of the physical environment and employee behavior on customer perception of restaurant service quality. Since Wall and Berry (2007) received more citations over the years, it can be considered a core publication in the red cluster as knowledge transfers from this work to many other works in the citation network. For instance, this paper is cited by Ryu et al. (2008), who examine the relationships between service quality, customer satisfaction, behavioral intentions (e.g., revisit intention and word-of-mouth intention) in the restaurant industry and find that overall quick-casual restaurant image is remarkably affects perceived value. Expanding this line of thought, this cluster also contains numerous empirical studies on other variables influencing customer loyalty in the restaurant industry, such as customer satisfaction (Han & Ryu, 2009a), hedonic and utilitarian values (Ryu et al., 2010), and the quality of restaurant services (Jeong & Jang, 2011). Interestingly, these studies show that restaurant research has focused on understanding the determinants of customer satisfaction and revisiting intentions in the restaurant industry. Overall, the historical foundations of the red cluster include themes concerning the impacts of the physical environment and employee behavior on customer perception of restaurant service quality. Interestingly, the studies in this cluster show that restaurant research has focused on understanding the determinants of customer satisfaction and revisiting intentions in the restaurant industry.

In the blue cluster, Gupta et al. (2007) laid down a stepping stone for research on the relationships between customer satisfaction, repeat-purchase intention, and restaurant performance. Their findings demonstrate that restaurants paying attention to food quality, acceptable prices, and attractive service have the highest potential to boost visitors' desire to return, thereby achieving higher sales. The study of Gupta et al. (2007) directly contributes to the influential study of Wu and Liang (2009), which studies service encounters and restaurant consumer behavior. Based on empirical data, it is found that restaurant environmental factors and interactions with service employees and consumers favorably impact the

consumer experiential value. Later, the focus shifts to studying the role of comments on electronic guides and social media in harming restaurant reputation or guaranteeing business's longevity (Pantelidis, 2010). The final cluster can be called "green restaurants". In this cluster, Hu et al. (2010) is relevant because it explains the relationships between consumers' understanding of a restaurant's environmental concerns, sustainable practices, and environmental behavior and their desire to patronize green restaurants. The findings demonstrate that consumers' knowledge of restaurant operations and environmental issues are significant drivers of consumers' intentions to visit green restaurants. Jang et al. (2011) investigate the selection attributes and behavioral intentions of Generation Y consumer segments toward green restaurants, and Namkung and Jang (2013) explore the impacts of green practices at restaurants on customer-based brand equity formation. Although the paper in these two clusters affords the topic of restaurants according to different perspectives, the focus on emerging aspects such as social media and green restaurants has to be deepened in future studies.

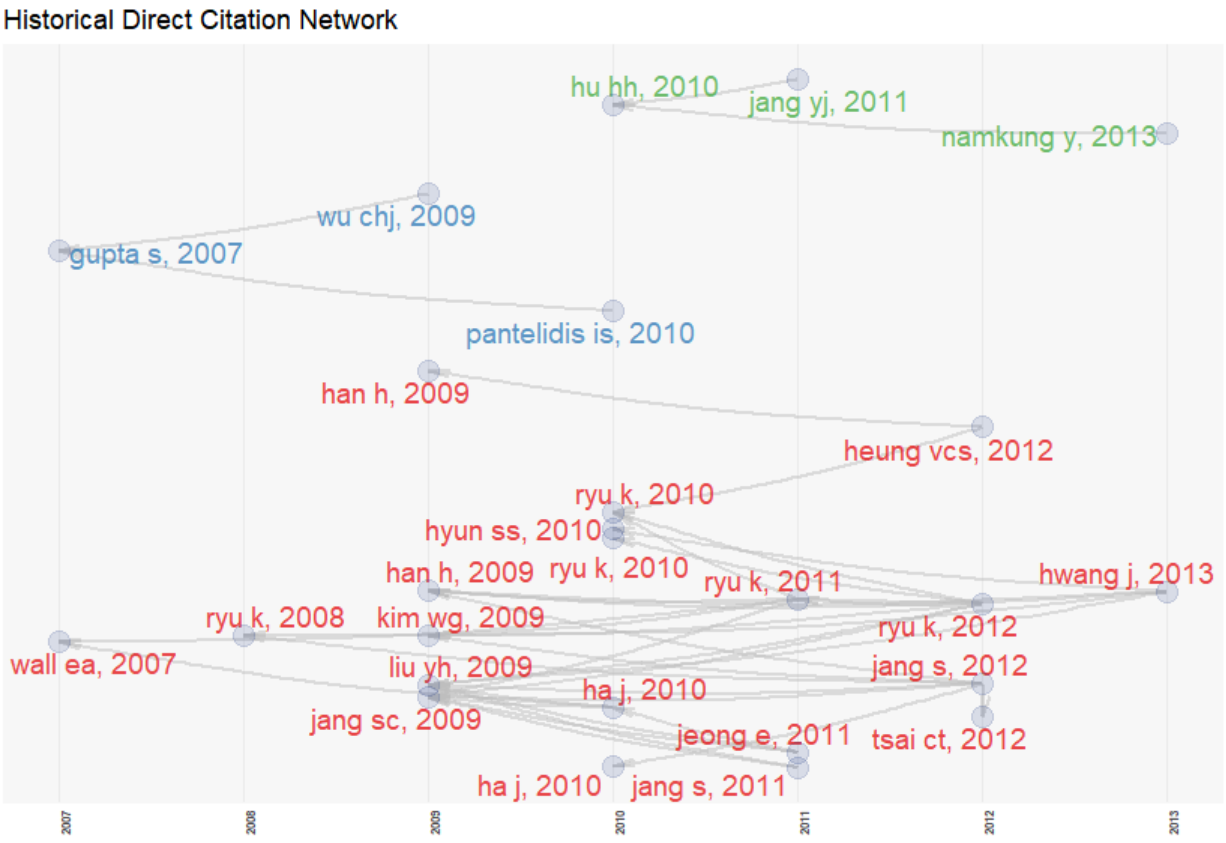

Figure 6. Historiographic map of restaurant research.

3.2.2. Co-citation networks

According to Lin and Himelboim (2019), it is critical to evaluate the author co-citation network to identify the most important authors in a specific field of study. As per Bakshy et al. (2011), influential authors have a critical role in disseminating knowledge and encouraging information flow in a particular study field. The author co-citation network of restaurant research depicted in Figure 7 has a diameter of 2, a size of 65, and a density of 0.957. Additionally, the graph sheds light on the most prominent authors in restaurant research. To begin, the graph shows that Jang is the most influential author in restaurant research. Second, we see a high "homophily effect" due to the proximity of several nodes, particularly those representing Soocheong Jang and Seoki Lee, which demonstrates the impact of "similarity breeds connection" (Abbasi, 2016; Ciotti et al., 2016; Kumar & Jan, 2015). This impact is typical when scholars explore similar research subjects and themes in a particular study field.

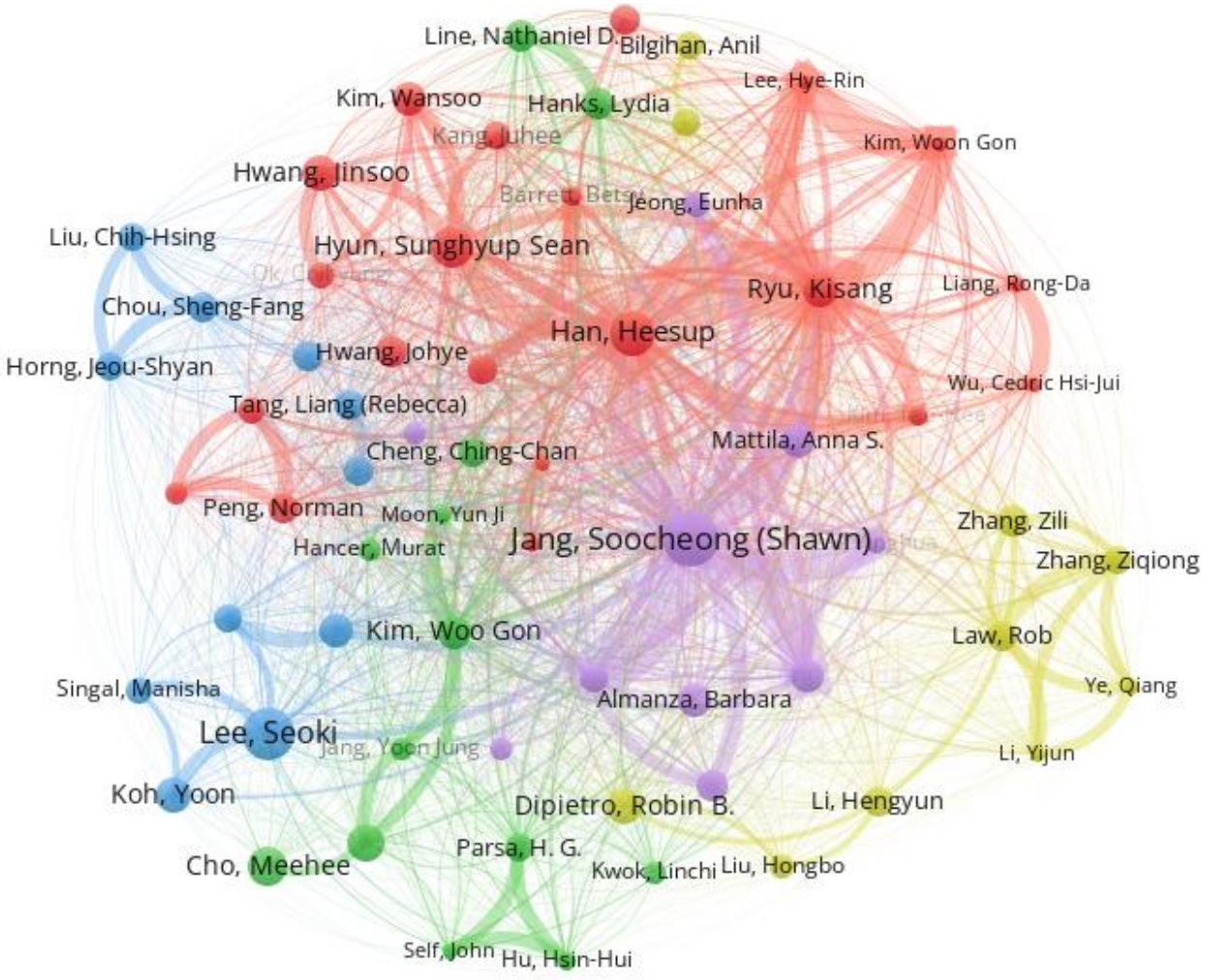

Figure 7. Author co-citation network in restaurant research

The journal co-citation network depicted in Figure 8 has five different clusters. The network's size, density, and diameter are 70, 0.319, and 0.424, respectively. The International Journal of Hospitality Management led the green cluster, which occupies a fundamental position in the network. This cluster also contains journals like the International Journal of Contemporary Hospitality Management, Cornell Hospitality, and Journal of Hospitality Marketing and Management. The yellow cluster is the smallest one, containing journals such as the International Journal of Quality and Reliability Management, the European Journal of Operations Research, and the Scandinavian Journal of Hospitality and Tourism. The red cluster comprises journals such as the Journal of Hospitality and Tourism Management. Finally, the blue cluster includes journals such as Management Science, Journal of Marketing, and Journal of Consumer Research. The network also shows that core journals are central in each cluster, whereas atypical nodes drift farther away. Lastly, due to the low interaction between all clusters, the results suggest an "orthodox core-heterodox periphery" relation, where heterodox outlets situate in the margins while highly cited orthodox outlets lead each cluster.

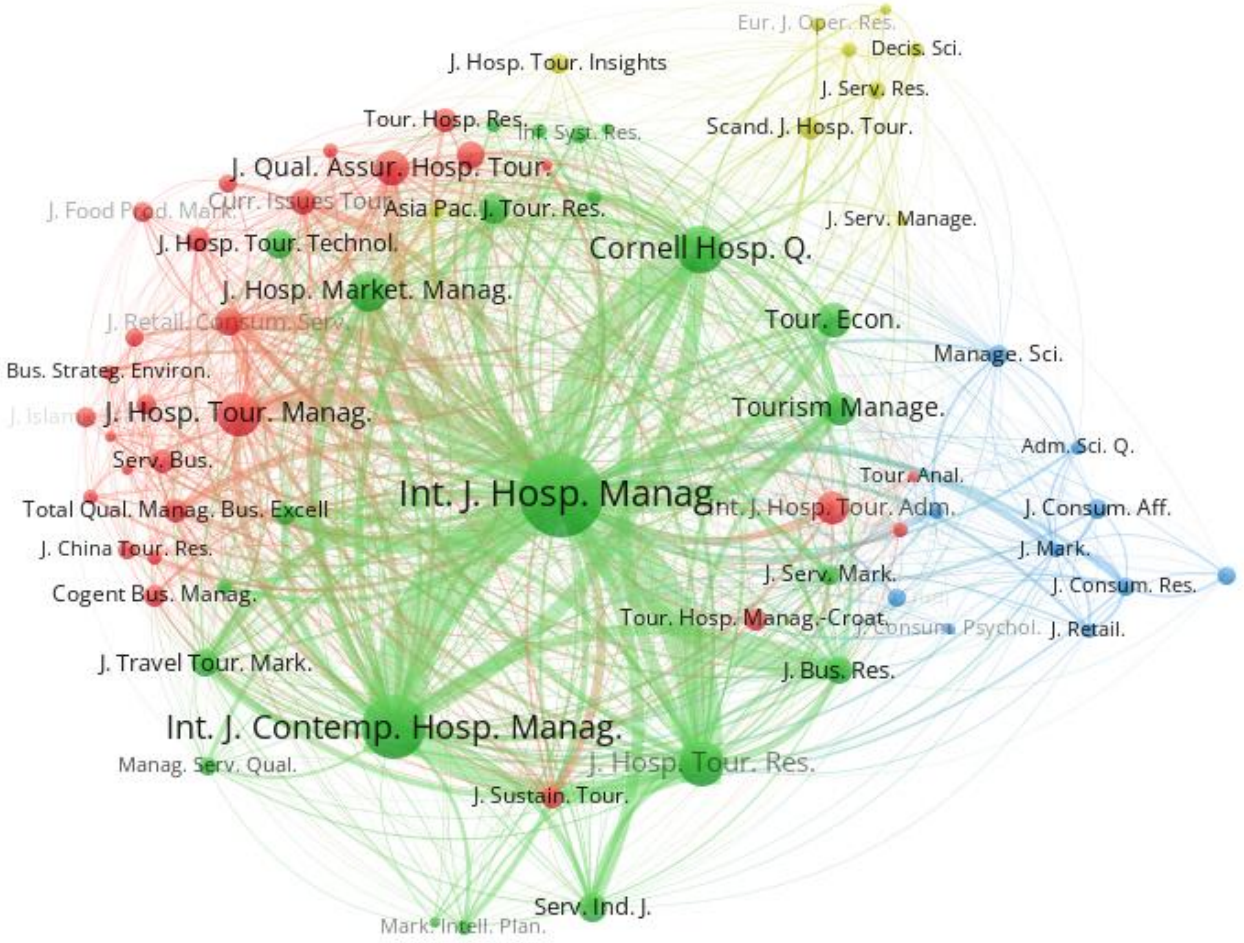

Figure 8. Source co-citation in restaurant research.

3.2.3. Collaboration networks

Co-authorship can exchange and convey interdisciplinary knowledge, support creativity, and magnify the impact of scholarly research (Liao, Tang, Li, et al., 2019; Liao, Tang, Zhang, et al., 2019; Rejeb, Treiblmaier, Rejeb, & Zailani, 2021), which is a significant issue in bibliometric studies (D. Yu et al., 2018). We perform author collaboration networks using co-authorships. This network type gives an idea about the total number of mutual publications in a specific research field. The author collaboration network in restaurant research depicted in Figure 9 has a size, density, and diameter of 11, 0.26, and 5, respectively. The network size demonstrates the lack of collaborative efforts in the restaurant field, suggesting a weakly connected network. The map shows that restaurant research is partitioned into three major clusters. Soocheong Jang, along with Jong-Hyeong Kim, Barbara Almanza, and Young Namkung, occupy the central position in the network. The red cluster contains authors like Heeseup Han, Sunghyup Sean, Kisang Ryu, Wansoo Kim, and Jinsoo Hwang, whereas the blue cluster comprises the authors Seoki Lee and Yoon Koh. Moreover, there are few dispersed networks, which indicates that collaboration in restaurant research is minimal and only happens in communities with sparse linkages. A glance to the sparse network also indicates that influential scholars in the restaurant domain work in separate silos. The strong inclination toward author collaborations within the same research community is likely to be shared language, geographical proximity, and identical cultural background. These factors make it simpler for authors to cooperate since they work in a familiar atmosphere. Particularly, common language and comparable cultural background seem to be crucial supporting factors for forming author collaborations, even beyond national boundaries.

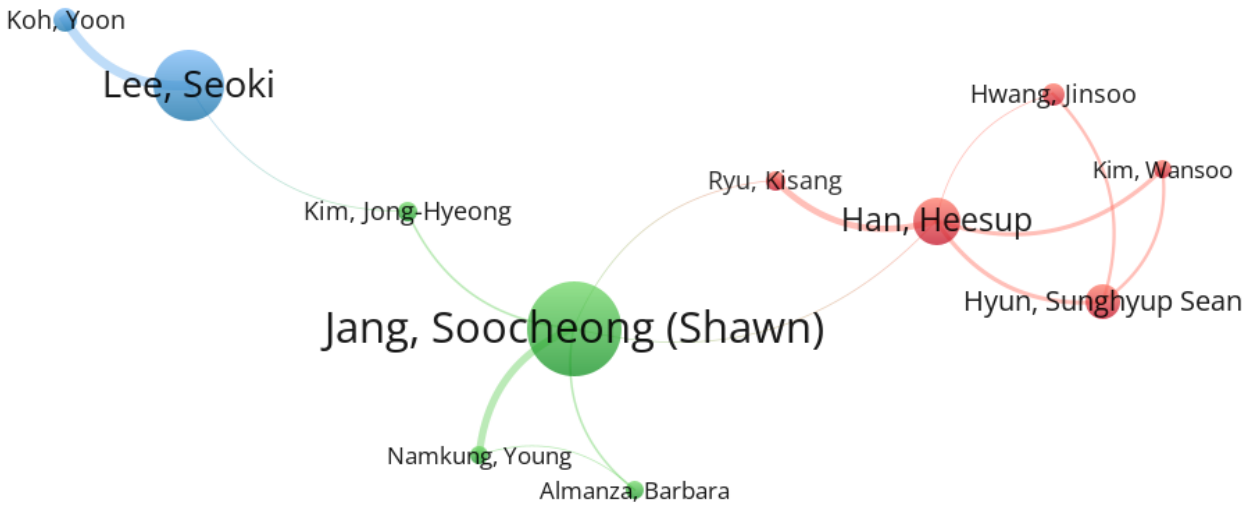

Figure 9. Author collaboration network in restaurant research.

The university collaboration network in restaurant research is depicted in Figure 10. The network size, density, and diameter equal 30, 0.22, and 4, respectively. The node size corresponds to the number of the university's publications, while the thickness of lines reflects the cooperation relationships. The network shows four significant research clusters as depicted by colors. The red cluster contains the five most prolific universities that publish restaurant-related studies. These include Kyung Hee University in the USA, followed by Florida State University and Cornell University. The blue cluster contains universities like Purdue University, Sejong University, Dong-A University, and Kansas State University (located in South Korea and the USA). The network clearly demonstrates a North-South divide in the restaurant field since collaboration between developed and developing nations' universities does not exist. Generally, the results confirm the scattered nature of restaurant research and the absence of knowledge sharing among most academic universities.

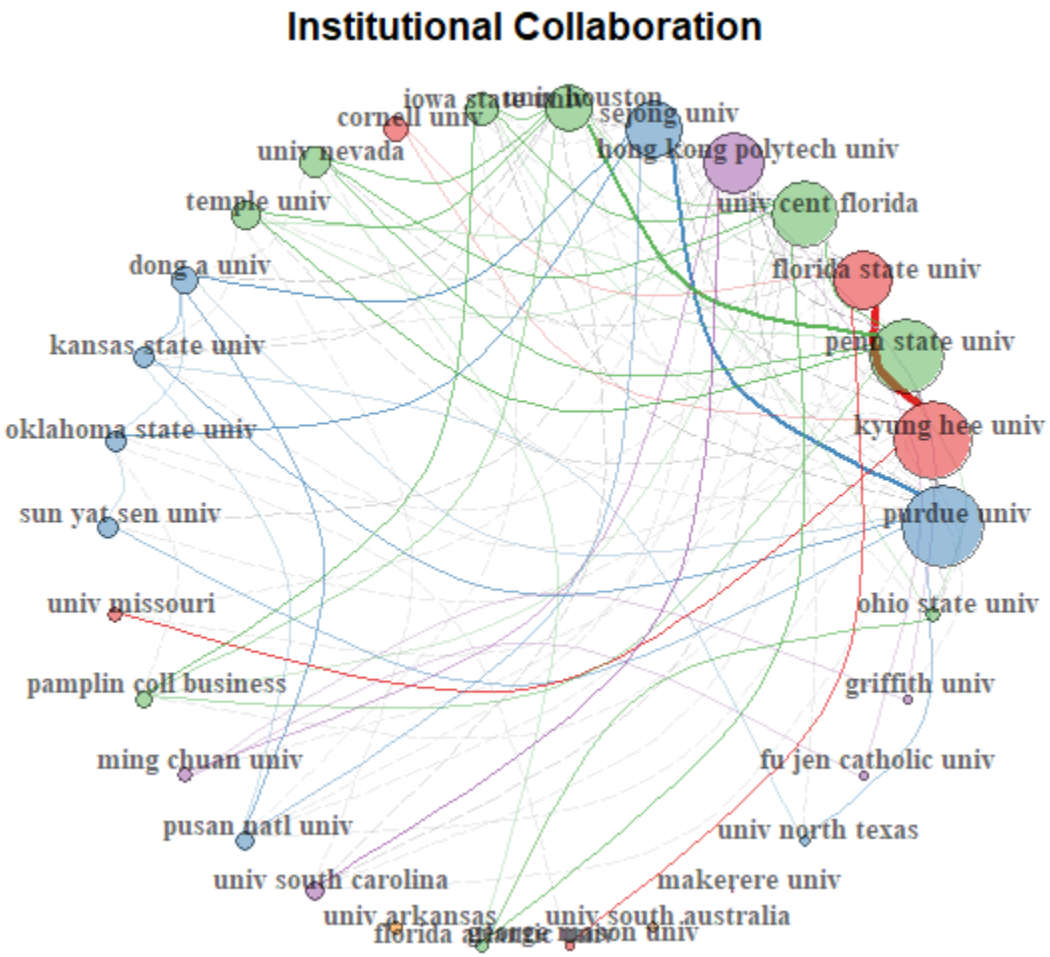

Figure 10. University collaboration network in restaurant research.

The country collaboration network in restaurant research shows the level of cooperation among nations. Figure 11 shows the international collaboration network, with a size of 50, a density of 0.15, and a diameter of 4. The map is denser than the author and institution collaboration networks; nevertheless, the density indicator suggests that only 15% of all network's potential collaborations are realized. The graph shows that the most productive nation contributing to restaurant research is the USA, with strong collaboration with other nations such as South Korea, China and Taiwan. The network additionally reveals that little collaboration exists between Sweden, Norway, and Germany. This result demonstrates that the global collaborative networks are not influenced by language for geographical proximity, despite some degree of research cooperation between neighboring nations.

The temporal overlay of the country collaboration network is shown in Figure 12. From the map, we find that novel kinds of collaboration are being formed among newcomers in the restaurant field, including Egypt, Bangladesh, and Oman. However, this collaboration appears sparse, as illustrated in Figure 13, which depicts the global map's cooperation patterns. In summary, research activity pertaining to restaurants was predominantly restricted to developed nations. This suggests that international collaboration is highly encouraged, especially for scholars in developing nations. In line with Narin et al. (1991), we argue that outstanding and excellent research is per-se international. As a result, researcher mobility might be advantageous in providing access to international collaboration networks, enhancing the quality of research output, and encouraging collaborative research opportunities with other countries.

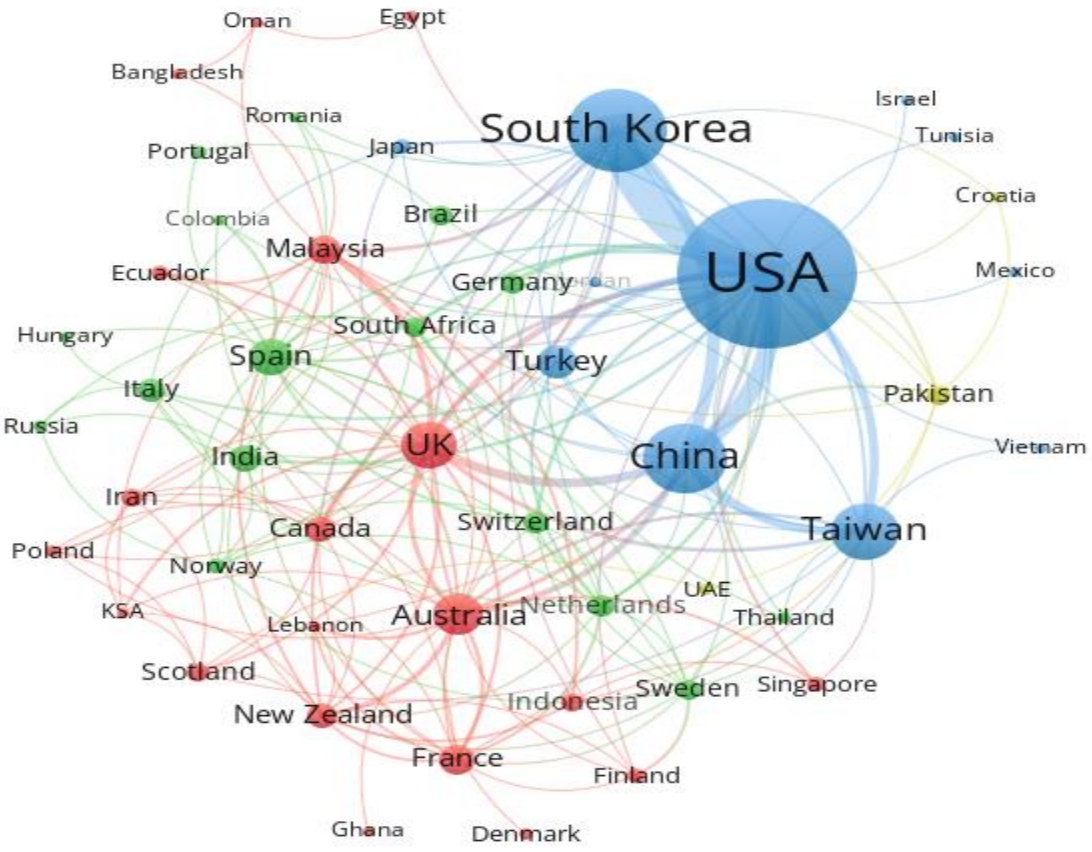

Figure 11. Country collaboration network in restaurant research.

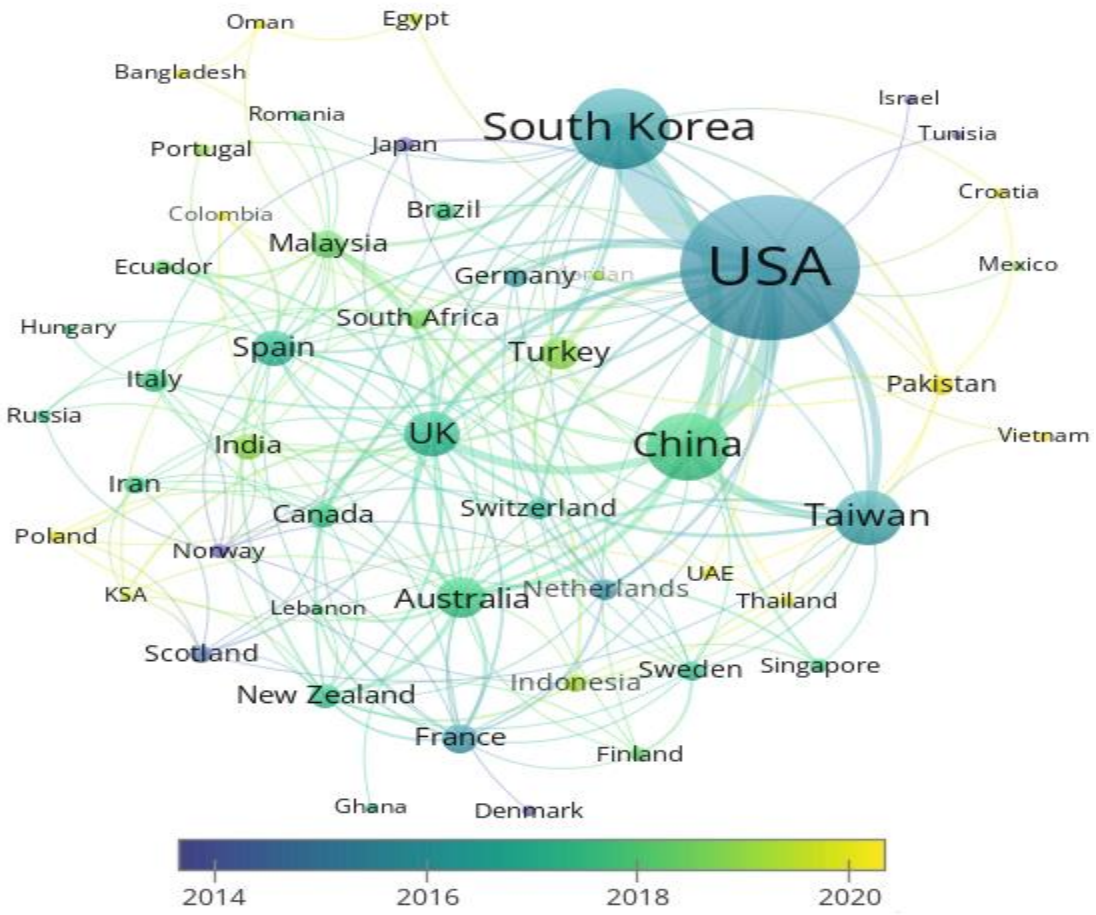

Figure 12. Temporal overlay of country collaboration network.

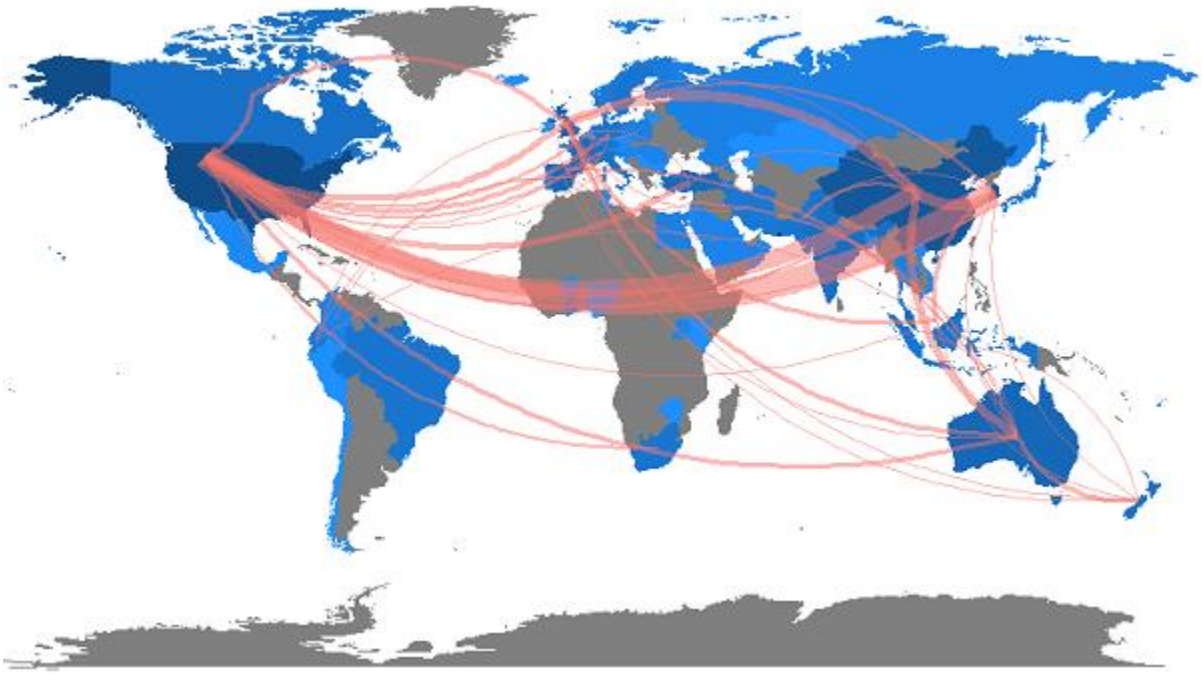

Figure 13. Global map of country collaboration.

3.2.4. Keywords and keywords co-occurrence analyses

Due to their high abstract level, keywords can indicate fundamental study material and themes, diverse perspectives and research foci, and current status and potential research prospects (C. Chen et al., 2008; Su & Lee, 2010). Figure 14 depicts the restaurant research word cloud. It is used to display the frequency of abstract keywords in selected publications after data cleaning (e.g., removal of meaningless terms such as stop words and verbs). The frequency dictates the size of keywords. As can be observed, "service", "consumers", "food", "customer", "quality", “intentions”, "performance", “experience”, “influence”, "satisfaction", “employees”, and "behavior" are the most used keywords.

Figure 14. Wordcloud of the most frequent abstract keywords of restaurant research

Besides the word cloud method, we performed a word growth analysis (Figure 15). It is particularly beneficial in predicting future research directions. As various academics have argued (e.g., C. Chen et al., 2014, 2012; Qian et al., 2019), researchers' terms that have shown a significant spike in popularity may indicate emerging and prospective research trends. If it wants to be regarded as a scientific frontier in a particular subject, this surge must persist till the time of analysis (Colicchia et al., 2019). It is evident from the figure that themes related to restaurant research, including "customer satisfaction" and "service quality" and "fast food", are among research frontiers. Customer satisfaction is extremely pertinent to the foodservice industry as it determines positive word of mouth and repurchases; both are vital conceptions of customer loyalty. Increasing customer satisfaction is a crucial requirement for brand performance and success. In the foodservice industry, customer satisfaction has been strongly associated with service quality and profitability (Agrawal & Mittal, 2019). In this regard, Bujisic et al. (2014) stated that service quality represents one of the most researched restaurant-quality characteristics that reflect customers' opinion of the overall superiority or excellence of the service. As an essential factor of importance. service quality is perceived via intangible benefits like courtesy, responsiveness, caring, and professionalism provided by the restaurant employees (Stevens et al., 1995). To measure service quality in various service settings, the SERVQUAL survey instrument was established according to five aspects: responsiveness, reliability, assurance, empathy, and tangibles (C.-C. Cheng et al., 2012; Ladhari, 2009). Since the SERVQUAL approach did not measure some of the distinctive dimensions of restaurant quality, Stevens et al. (1995) developed the DINSERV model to improve the tangibility attribute with a focus on aesthetic and functional dimensions. Besides these well-established themes, the foodservice industry is characterized by the uniqueness of being a globalized and competitive industry, where the switching cost of customers is fairly minimal. As a result, the industry has radically transformed in the previous decade to increasingly experiential layouts in which cuisine is integrated with service and ambiance. In this context, consumer satisfaction has gained tremendous attention from academia as it strongly ties with customer loyalty and behavioral aspects like revisit intentions (Han & Ryu, 2009a; Ryu et al., 2008).

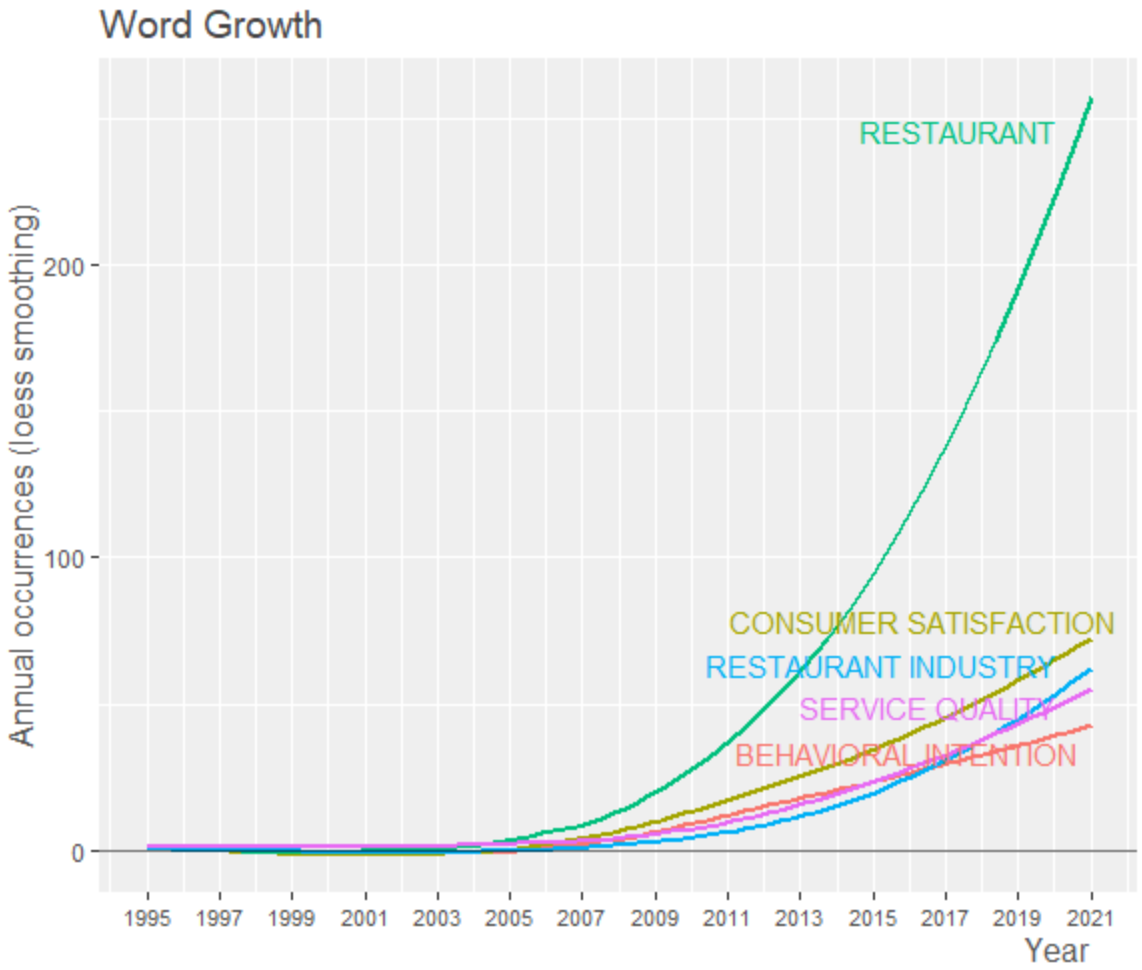

Figure 15. The evolution of authors' keywords over time.

Moreover, we used the Sankey diagram to visualize the relationship and flow of keywords, authors, and referenced documents in restaurant research (Figure 16) (Sankey, 1898). The graph, also referred to as a three-field plot, is a helpful way to depict the flow of information between entities. The width of the arrows and boxes is dictated by the frequency of relationships (Soundararajan et al., 2014). The method names the themes according to the keyword that frequently appears. As evident from the figure, "Restaurant Industry", "Restaurant", "Behavioral Intention", "Satisfaction", "Franchise", and "Customer Satisfaction" are the most often used keywords in scholarly publications owing to their edge widths. On the one hand, Lee, Jang, and Han are the writers who used more diverse keywords than the rest, demonstrating their breadth of field coverage. On the other hand, Jang, Hyun, Han, and Hwang collaborate with diverse outlets.

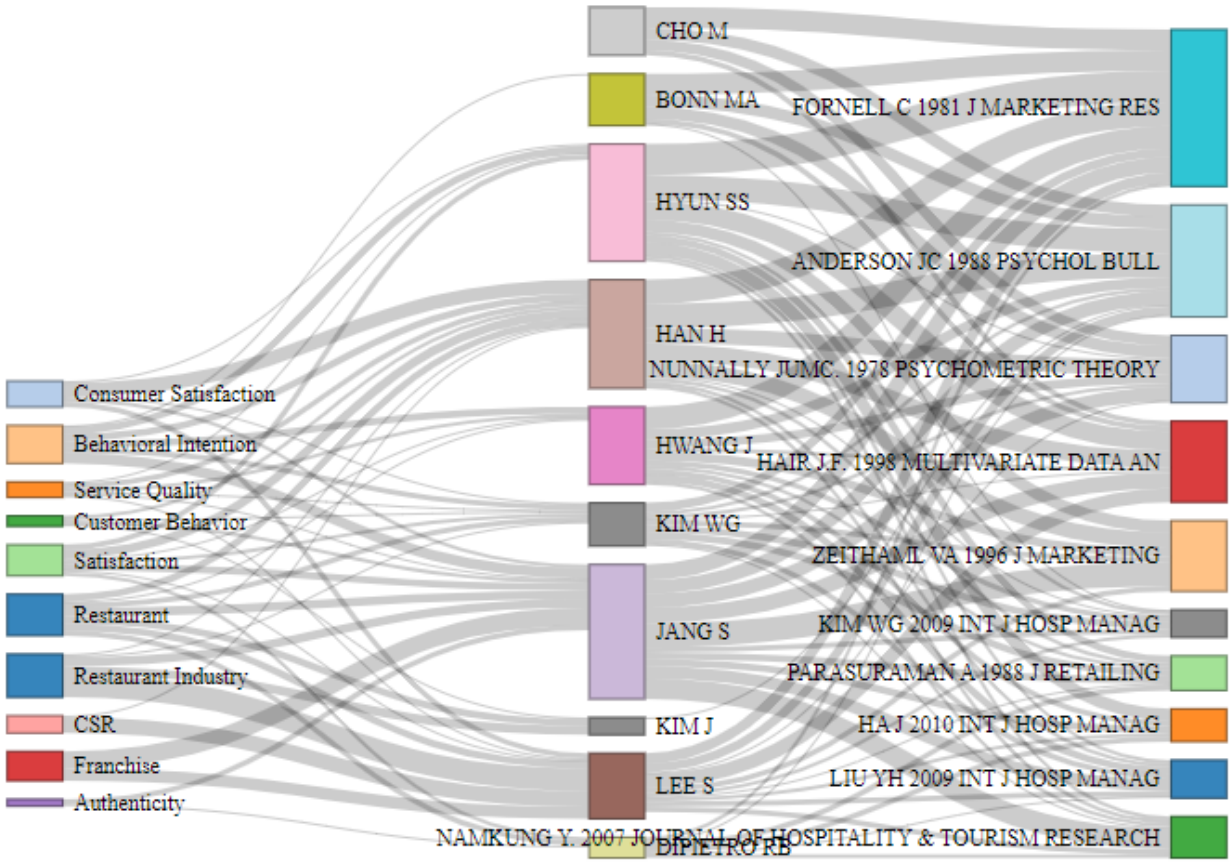

Figure 16. Sankey diagram of restaurant research (keyword-author-publication linkages).

We carried out a keyword co-occurrence network analysis to identify the different research clusters in the restaurant field (Rejeb, Rejeb, Simske, & Keogh, 2021). This data mining technique assists us in determining critical research lines and themes that have contributed to the development of the restaurant literature. We began by retrieving, reviewing, and refining all author-supplied keywords (i.e., the unit of analysis). For instance, the full-length keywords were shortened (e.g., Corporate Social Responsibility by CSR). We entered the data into the VOSviewer computer program to construct the network. Subsequently, we used density-based spatial clustering and employed the full counting method (Kriegel et al., 2011). We fixed the threshold of 5 keyword occurrences. This task resulted in a network containing six clusters (see Figure 17). Each node in the network constitutes a keyword, and its color specifies the cluster to which the node has belonged. The node's radius is proportional to the frequency of the keyword. Finally, the distance between nodes indicates the nodes' density or degree of relatedness. That is, the higher the density, the closer the nodes.

As shown in Figure 17, the most prominent cluster is the red one. It is a topical cluster and primarily focuses on the concept of consumer behavior in the literature about restaurants, foodservice activities, tourism, hotel and the overall hospitality sector. Consumer behavior represents the outcome of several intrinsic and extrinsic variables, including consumer motivations, food characteristics, and the environments in which food preferences and choices are framed (Camillo et al., 2010). In the cluster, the association between innovation and consumer behavior and how they influence one another have gained researchers' attention (C. Lee et al., 2016; Ottenbacher & Harrington, 2009; Torabi Farsani et al., 2016). To deliver a positive customer experience, foodservice businesses can leverage information communication technologies (ICT) and innovations to deliver a positive customer experience. For example, Chuah et al. (2021) argue that behavioral intentions can be measured in terms of customers' innovativeness and the option to pay higher for robotic services in restaurants. Moreover, the current COVID-19 pandemic has considerably impacted consumer behavior and emphasized the enabling role of innovation to improve order accuracy, maximize productivity, assure business responsiveness and survival, and enhance consumer satisfaction and relationship (Gavilan et al., 2021; Min et al., 2021; Vig & Agarwal, 2021). Finally, several studies in this cluster have explored consumers' tipping behavior (Conlin et al., 2003; Lynn, 2006; Lynn & Grassman, 1990).

The green cluster focuses on consumer satisfaction in restaurant research. Several scholars have investigated consumer satisfaction in the foodservice industry (Babin et al., 2005; Kivela et al., 1999; Weiss et al., 2004). They have also examined the relationship between consumer satisfaction, service quality, loyalty, trust, perceived value, revisit intention, and clarified how consumer satisfaction could influence consumer loyalty and behavioral intentions in various restaurant types, including fast food restaurants, casual-dining restaurants, and full-service restaurants (Bufquin et al., 2017; Dziadkowiec & Rood, 2015; H. J. Kim et al., 2003; Ok et al., 2005; Park, 2004; H.-C. Wu & Mohi, 2015; Young et al., 2007). The blue cluster discusses consumer-brand relationships. The critical role of brands in the foodservice sector has been researched by many scholars (add ref) (Boo & Mattila, 2002; Farzin et al., 2021; Hur & Adler, 2011; Yi et al., 2018). The high occurrence of the keywords "behavioral intention", "emotion", "authenticity", and "ethnic restaurant" suggests the increasing importance of promoting ethnic restaurants and delivering an authentic consumer experience. Generally, this cluster contains studies analyzing the antecedent variables like perceived quality, servicescape, customer perception, and restaurant experience that influence consumer behavior and improve consumer-brand relationships, including brand loyalty, brand equity, brand prestige, brand preference, and authenticity. Even though most concepts in

the cluster related to the marketing discipline, other fields such as supply chain management, sustainability, digital transformation, and strategic management can enrich the restaurant literature and expand this fantastic knowledge realm.

The yellow cluster highlights the importance of corporate social responsibility (CSR) within the foodservice sector. As is the case with other sectors, researchers in this domain note that restaurants should not focus on maximizing their financial performance alone. Instead, they should overcome environmental and social issues since this would favorably influence their reputation and boost their financial performance (Jung, Kim, et al., 2018a; S. Lee et al., 2020; Yoon & Chung, 2018). Indeed, CSR could positively impact employee engagement, job satisfaction, and subsequently restaurant performance (M. Kim & Kim, 2014). Moreover, researchers have explored the moderating effects of CSR and its association with franchising, internationalization, restaurant type, and risk (Jung, Kim, et al., 2018a; B. Kim & Lee, 2020). The focus of the fifth cluster, colored in purple, is on electronic word-of-mouth (eWOM), social media, and online reviews, suggesting the vital role of social media channels in consumers' communication and the impacts of online eWOM and online reviews on restaurants' failure or success (R. B. DiPietro et al., 2012; Lepkowska-White & Parsons, 2019; Lima et al., 2019; Seo et al., 2015). Consumers are increasingly expressing their opinions and sharing their feedback on restaurant experiences and services. Related to these topics, several researchers explored how these shared views influence intentions and emotions (Oliveira & Casais, 2019; Popy & Bappy, 2020). Furthermore, studies attempted to clarify how restaurants could better take advantage of positive or negative reviews (e.g., to develop proper recovery strategies after failure of service delivery), enhance brand reputation, and improve social capital and performance (Jia, 2020; Le et al., 2022; Yan et al., 2015).

The final cluster (colored in aqua) mainly focused on green restaurants and green practices in the foodservice industry (Atzori et al., 2018; Choi & Parsa, 2006; Ma & Ghiselli, 2016; Shapoval et al., 2018). Recently, green restaurants have been extensively widespread owing to environmental issues and consumers' desires for local and organic foods (Hanks & Mattila, 2016; Holmes et al., 2018; Mikkelsen & Sylvest, 2012). Green restaurants are different from traditional restaurants in that they dedicate efforts to minimizing waste, optimizing waste efficiency, and utilizing sustainable building materials and furnishing. Overall, researchers in this cluster examined the topic of green restaurants from numerous angles, such as restaurant performance, customer intentions, and determinants of green practices (Perramon et al., 2014; Schubert et al., 2010). The high occurrence of TPB (Theory of Planned Behavior) underscores the prevalent use of this theory to explain consumers' intentions, attitudes, and perceptions

of restaurants and the differences in food choices between ages, regions, and genders (Chan & Hon, 2020; Padgett et al., 2013; Raab et al., 2018; Roberts & Barrett, 2011; York et al., 2009). In addition, several research works have investigated the effects of green restaurant menus on consumer intentions, stressing menu labeling and design strategies (local food-related information) as a cornerstone to motivate consumers to purchase sustainable and green foods (Y. J. Jang et al., 2011; K. Lee et al., 2014; Lo et al., 2017).

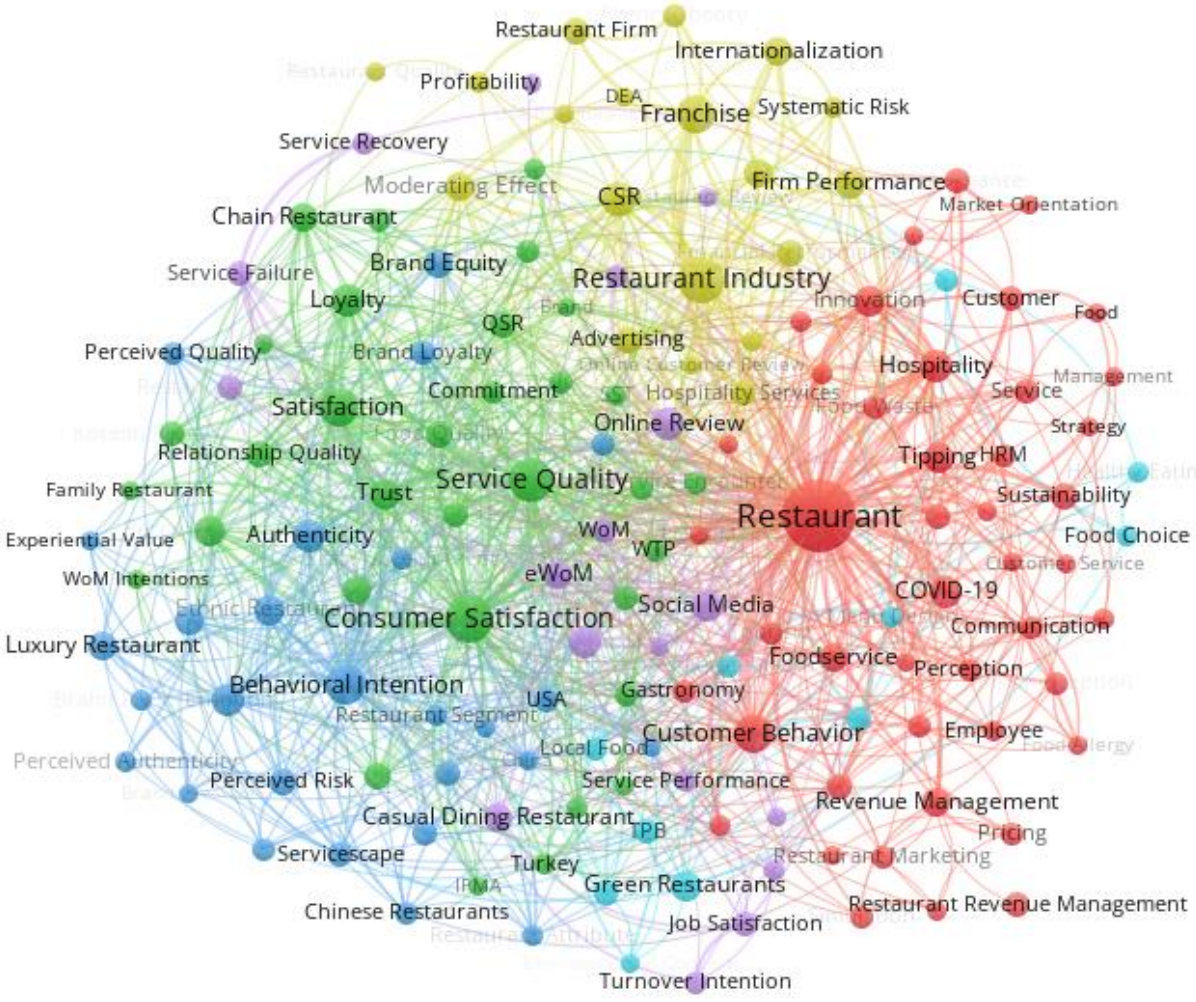

Figure 17. Keyword co-occurrence network in restaurant research.

3.3. Intellectual structure maps and trend topics

3.3.1. Conceptual structure map

To investigate the conceptual structure of restaurant research, we conducted a multiple correspondence analysis (MCA) in accordance with established best practices (Demiroz & Haase, 2019; Alnajem et al., 2021; Mostafa, 2020). The result demonstrates three unique clusters, as shown in Figure 19. These diverse study areas demonstrate that the topic has benefited from the contributions of researchers from a variety of disciplines. The red cluster is a rich research focus encompassing various themes. On the one hand, it revolves around the relationship of social media, online reviews, and eWOM with sustainability-related practices and innovations. On the other hand, the focus covers the impact of these concepts on customer behavior. An increasing number of customers participate in social media debates and share their experiences regarding foodservice, food quality, the atmosphere of restaurants, etc. (H. Li et al., 2020). The researchers in this cluster are interested in how these various debates are going to impact customer behavior and provide guidance for restaurant management and revenue management (Tang et al., 2019). The impact of sustainability-related practices and innovations on customer behavior has also attracted researchers' attention (Huifeng & Ha, 2021; M. J. Kim & Hall, 2020; Oliveira & Casais, 2019; Popy & Bappy, 2020).

The blue cluster pays an emphasis on customer satisfaction. There have been some studies done on the subject matter. For example, scholars looked at the relationship between customer satisfaction and loyalty to food and service quality at various types of restaurants, such as luxury, casual dining, and ethnic restaurants (DiPietro & Levitt, 2019; Anggraeni et al., 2020b; Mursid & Wu, 2021; Tuncer et al., 2021). Finally, the green cluster mainly focuses on the restaurant industry's corporate social responsibility (CSR). CSR has been proven beneficial in enhancing the reputation of restaurants and their financial performance (Yoon & Chung, 2018; Theodoulidis et al., 2017). Researchers argue that CSR acts as insurance by developing a good restaurant image, reputation among industry stakeholders, and brand awareness, which eventually leads to organizational sustainability (Jung, Kim, et al., 2018a; Youn et al., 2016). There was also research on the intersection of CSR, globalization, and franchising in the cluster (B. Kim & Lee, 2020; Jung, Dalbor, et al., 2018; Jung, Kim, et al., 2018b).

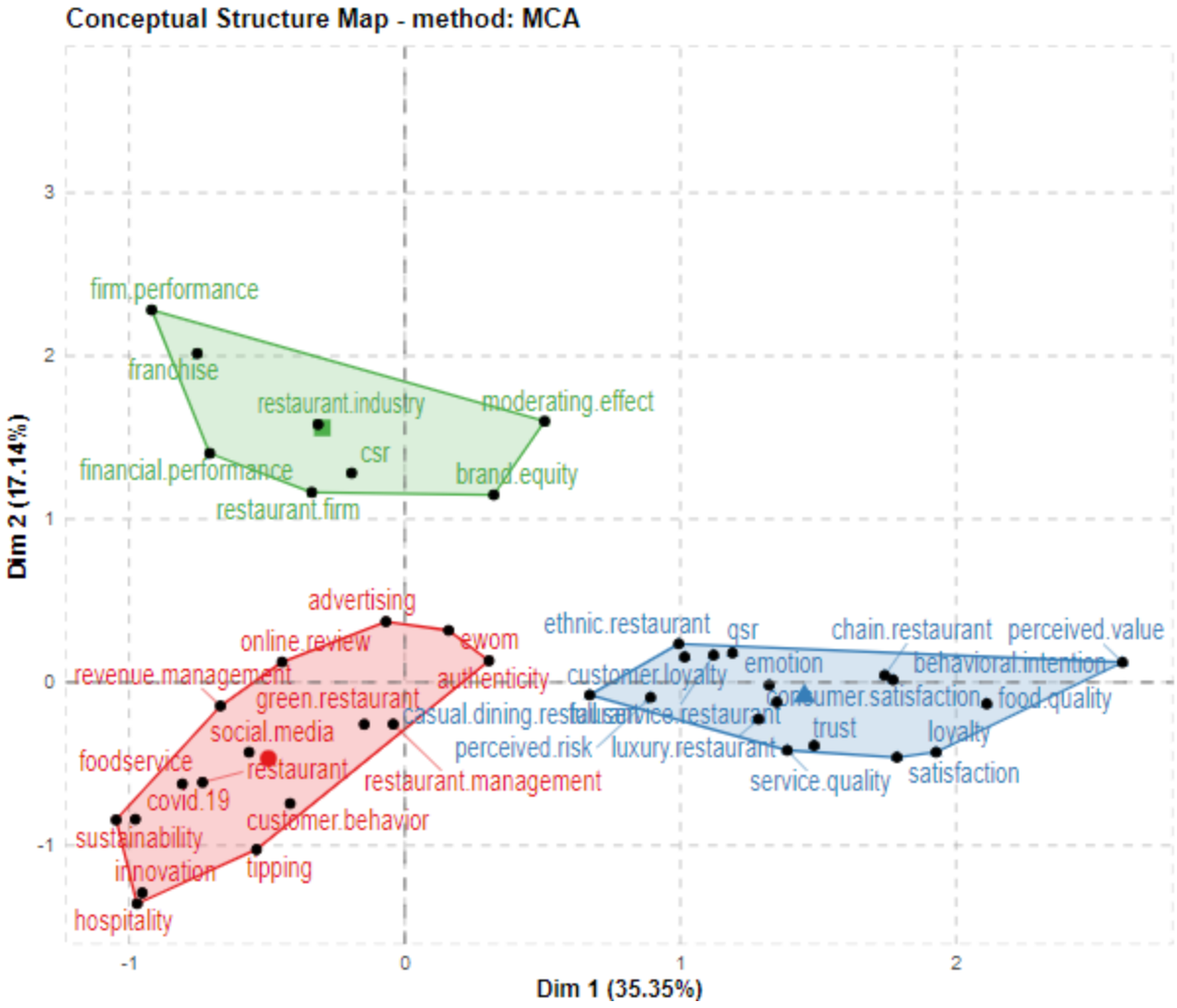

Figure 18. Conceptual structure map.

3.3.2. Thematic map

The thematic/strategic map depicted in Figure 19 illustrates the concentration of restaurant-related themes (Cobo et al., 2011). The dotted lines split the map into four quadrants according to density and centrality. Additionally, the size of the bubbles is dependent on the number of articles that contain the keyword. The first quadrant is characterized by "motor themes," or themes with a high density and centrality. These fully-developed themes demonstrate a high level of internal and external links. The second quadrant contains what is referred to as "highly developed and isolated themes," or those with a high density but low centrality. They are defined by highly developed internal bonds and weak external links. The third quadrant consists of "emerging-or-declining themes." Their low density and centrality levels reveal their internal and external links' weaknesses. Finally, low density and strong centrality

characterize the last quadrant's themes. The so-called "fundamental-and-transversal themes" have strong external connections but weak internal connections. As illustrated, “Restaurant”, “Customer Behavior”, “Hospitality”, COVID-19”, and “Innovation” are the highly cited impactful themes.

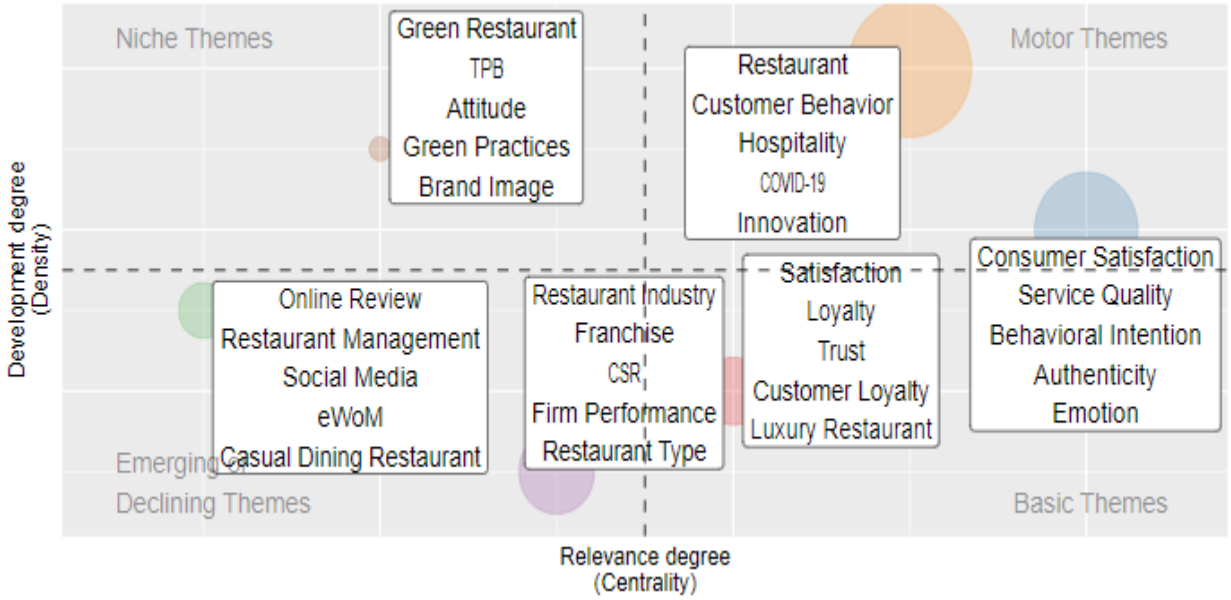

Figure 19. Thematic map in restaurant research

3.3.3. Trend topics

We conducted trend topics analysis to discover how restaurant research evolves over time (Abdollahi et al., 2021). As depicted in Figure 20, various significant insights could be drawn from the analysis. In the early years of restaurant research, we could observe the firm-oriented view as the dominant paradigm. The focus was on enhancing restaurant performance by improving human resource management (HRM), restaurant management, and service quality. “HRM”, “Customer Service Quality”, “Restaurant Management”, “Employee”, and “Financial Performance” all reinforce this view. Then, researchers have started to adopt a market-oriented view. For example, they have investigated customer behavior-related concepts and tried to relate restaurant performance to these concepts. “Perceived Quality”, "Customer Behavior”, Firm Performance”, “Satisfaction”, “Loyalty”, “Trust”, are among many others that illustrate this perspective. Recently, the focus has shifted to the increasing role of social media in shaping consumers’ behavior and the relationship between sustainability-related practices and restaurant performance. “Social Media”, “Online Reviews”, “Sustainability”, and “Green Restaurants” are indicative

of this burgeoning theme. “Covid-19” also has become a trending topic due to its significant impact on the hospitality industry and restaurant performance.

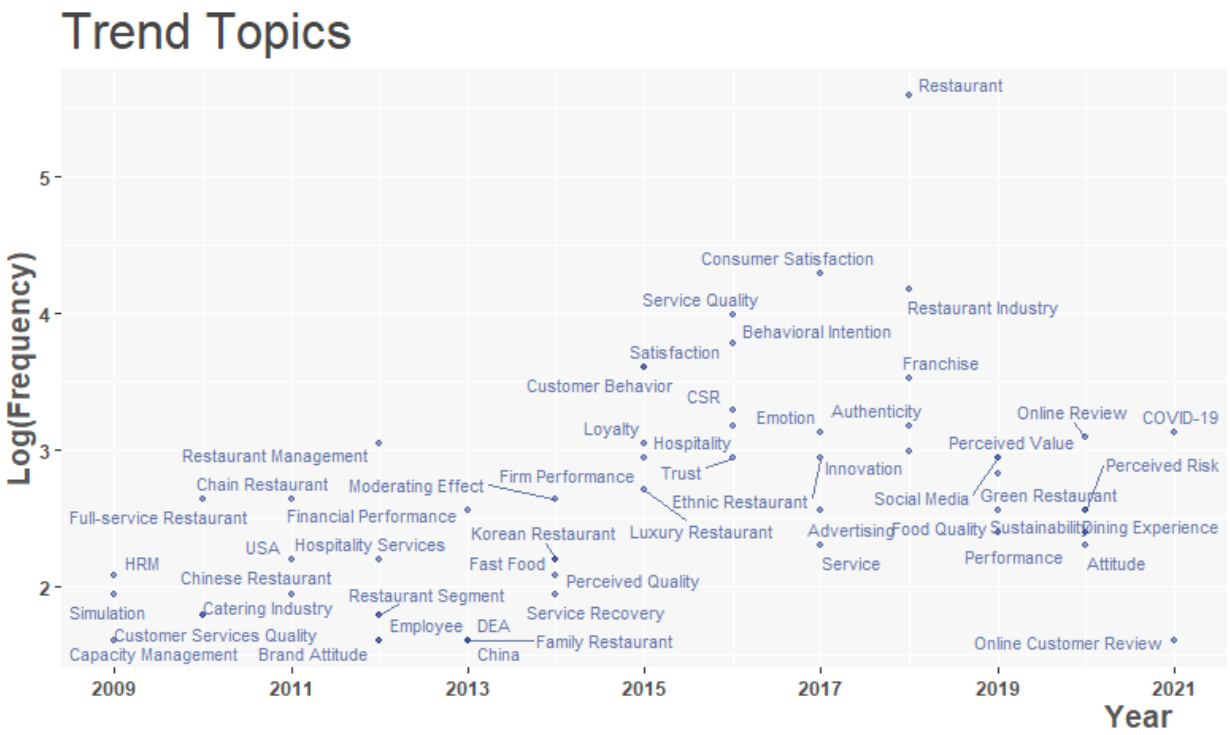

Figure 20. Trend topics.

4. Research implications, future research directions, and limitations

4.1. Research implications

Scholars have recently begun to conduct several review studies to investigate restaurant research. For example, DiPietro (2017) critically reviewed the current literature regarding the foodservice and restaurant industries and found that restaurant operations, restaurant finance, service quality in foodservice, foodservice marketing, food healthiness and safety, and technology attract scholars’ attention. Applying bibliometrics, Rodríguez-López et al. (2020) analyzed the published scholarly research discussing restaurants in the hospitality, leisure, sport, and tourism sectors and concluded that customer satisfaction represents the motor theme with the largest influence and that the exploration of emotions is an under-studied theme. However, to our best knowledge, a comprehensive and up-to-date examination of restaurant research trends has not been considered. Rodríguez-López et al. (2020) declare

that the lack of bibliometric studies on scholarly research dealing with restaurants calls for additional quantitative studies that trace the evolution of academic output, expand the understanding of restaurant-related topics, and fill the knowledge gaps. Our examination attempted to achieve this by analyzing restaurant research from a broader perspective. This bibliometric review focused on journal articles on restaurants from 1995 to 2021, and it revealed the influential authors, sources, and universities that contributed to the evolution of restaurant research and highlighted topical areas in the domain. This critical information can lay the foundation for setting out the agenda for future research and implications for management. This review provides theoretical and practical insights for practitioners, decision-makers, and academicians to better understand the development of restaurant concepts and call their attention to emerging opportunities and trends for advancing restaurant research, particularly in nations that lag in restaurant research.

Our research summarizes the essential areas of restaurant research that can be beneficial for various stakeholders, saving time and gaining the most related insights. For example, MCA identifies three major research paradigms in restaurant research. The first focus can lay the foundation for academicians and practitioners to deepen their insights into the increasing role of social media and sustainability-related practices concepts and their impact on consumer behavior. The second focus can also contribute to the knowledge of academics, practitioners, and decision-makers about customer satisfaction, its antecedents, and drivers to develop better initiatives for their academic work or business. The third cluster concentrates on CSR and is a call for business practitioners to develop strategies for being socially responsible and economically efficient firms simultaneously.

Furthermore, we demonstrated the evolution trend of scholarly research on the restaurant industry. We discussed how the focus of scholars has changed from a firm-oriented view to a market-oriented view of sustainability and communication technologies. It could not only contribute to academics' understanding of restaurant research evolution, but it also helps business practitioners to be familiar with novel approaches to achieve competitive advantage and superior performance. Our study should also be valuable for doctoral students and scholars who can utilize these data to improve their grasp of what is being researched and published in regard to restaurants and to delve more profoundly into some specific restaurant topics.

4.2. Future research directions

Based on the findings of the bibliometric analysis, this review proposes several future research directions:

- Scholars need to combine numerous theories and understand the decision-making process consumers participate in when choosing restaurants that have suffered from the impacts of the COVID-19 pandemic. Consequently, the existing predictors of consumer behavior may not be adequate. Hence, future research may draw on different theories and investigate factors that determine consumer behavior by integrating additional constructs like restaurant type, culture, and target groups.
- Future studies can concentrate on consumer perceptions, behaviors, and attitudes toward CSR plans in the restaurant industry. For instance, examining if perceived CSR increases consumer intentions toward minimizing food waste is insightful. Moreover, consumer response to waste reduction in restaurants should be assessed, especially for consumers with greater degrees of socially responsible and ethical consumption. Future investigations may focus on developing industry-specific measures for CSR, such as obesity and food safety. Future researchers can implement their studies based on novel CSR approaches (Latapí Agudelo et al., 2019).
- This review stresses the importance of online reviews to support consumer purchase decision-making in the foodservice industry (Le et al., 2022; Yan et al., 2015). For instance, Dixit et al. (2019) pointed out that the usefulness of online reviews in the foodservice industry is confirmed by the fact that over 75 percent of users of online reviews from a set of 2000 individuals in the US claimed that reviews substantially affected their purchasing choices. Furthermore, the volume of online reviews was favorably associated with the online popularity of restaurants. Therefore, more attention is needed to research the perceived effectiveness of customer-generated online reviews and their impact on consumer experience and revisit choices. A key research question is the role of online reviews in representing the quality of restaurant services and products. Online reviews are intended to increase consumer knowledge of restaurants and reduce the risk associated with information asymmetry. Thus, research on the approaches and strategies to verify the credibility and legitimacy of online reviews is required to assist foodservice managers in understanding customer needs and boosting restaurant performance.
- Future researchers should work on promoting strategies to better exploit social media (Chang & Cheng, 2021) and specifically the Metaverse considering the vast value-creating potential of blockchain technology (Abdollahi et al., 2022). Furthermore, future studies could investigate the barriers to the successful implementation of sustainability-related practices (M. J. Kim & Hall, 2020), for example, by conducting interpretive structural modeling.

- Although green restaurants are rising, studies on such a kind of restaurants mostly remain sparse (Ma & Ghiselli, 2016; Schubert et al., 2010). As a result, recommended possible research pathways include examining the competitiveness of green restaurants, their affordability, and their overall performance relative to conventional restaurants.
- Research on the link between consumer satisfaction and perceptions of restaurant authenticity is promising. Thus, assessing how perceptions of authenticity can influence consumer satisfaction is recommended since clients attribute a significant value to authentic restaurant foods and atmospherics (S. Lin & Jiang, 2021). Additionally, future works should evaluate the influence of key and peripheral elements of authenticity on restaurant performance and customer satisfaction.
- Recently, the restaurant industry has been drastically impacted by the COVID-19 pandemic. This health crisis urges foodservice operators and managers to implement methods that alleviate the anxieties of frontline employees and relieve their emotional exhaustion and job insecurity feelings (Roe & Smith, 2021; Zanetta et al., 2021; Zapata-Cuervo et al., 2021). From the customer standpoint, the fear of disease has replaced restaurant experiences with at-home food consumption (Yang et al., 2020). Even though such situations provide a chance for restauranteurs to sustain their pick-up and delivery services, there is an opportunity to incorporate novel technologies such as service robots to preserve the traditional means of offering restaurant products and services and replace frontline personnel. Accordingly, future studies should focus on explaining the role of cutting-edge technologies, including blockchain technology, big data analytics, artificial intelligence, and drones, in boosting restaurant resilience and resistance against disruptions and catastrophic scenarios. Of extra relevance is determining how to engage customers in technology-enabled foodservice experiences. Empirical research is also crucial to better comprehend the elements that drive or hamper the adoption of cutting-edge technologies in emergencies induced by health crises and pandemics.

4.3. Research limitations

These study findings provide significant support for comprehending restaurant-related notions and trends, yet some shortcomings need to be urgently overcome in the future. For instance, this review selected only peer-reviewed journal articles. Therefore, other document types, such as books, chapters, and conference papers, should be considered in future studies. Another shortcoming was that we consulted only the Web of Science (WoS) database. Although WoS is one of the leading and largest online

academic databases (Rejeb, Treiblmaier, Rejeb, & Zailani, 2021), relying on a single source might have caused us to ignore relevant restaurant-related studies. Moreover, in this review, we solely analyzed quantitative aspects and did not assess qualitative indicators. These shortcomings should be considered to identify new possibilities for future studies.

Despite effectively mapping and investigating global scholarly research on restaurants, our findings do not analyze the most influential publications in each decade and explain the motives behind the growing number of journal articles in this knowledge domain. This introduces a novel area of prospective research in qualitatively exploring the causes behind the influence of certain publications and the rapid evolution of restaurant research. Topics for future studies could consider consulting additional scientific databases such as Scopus, Google Scholar, and EBSCOhost to confirm or extend our findings. Even though our findings showed a group of leading universities publishing numerous studies on restaurants, it would be interesting to examine why some academic institutions are more prolific than others in the restaurant field. The analysis can be carried out quantitatively or qualitatively to identify the economic factors, the role of human capital, government policies, and environmental challenges that might have led to the increasing number of restaurant-related studies at those academic institutions. There is a need to comprehend the determining factors of consumer behavioral intentions to reduce restaurant food waste (Filimonau et al., 2020) and adopt new technologies (Jeon et al., 2020). Furthermore, future studies should analyze and compare the quantitative aspects to the qualitative ones to grasp consumers' selection of restaurants and satisfaction. Publications and archives may be investigated to elucidate the work that has been made in restaurant research, and a systematic literature review may be undertaken to support or enhance this study's findings.

References

Abbasi, A. (2016). A longitudinal analysis of link formation on collaboration networks. *Journal of Informetrics*, *10*(3), 685–692. https://doi.org/10.1016/j.joi.2016.05.001

Abdollahi, A., Rejeb, K., Rejeb, A., Mostafa, M. M., & Zailani, S. (2021). Wireless Sensor Networks in Agriculture: Insights from Bibliometric Analysis. *Sustainability*, *13*(21), 1–22.

Abdollahi, A., Sadeghvaziri, F., & Rejeb, A. (2022). Exploring the role of blockchain technology in value creation: A multiple case study approach. *Quality & Quantity*, 1–25.

Agrawal, S. R., & Mittal, D. (2019). How Does Transparency Complement Customer Satisfaction and Loyalty in the Restaurant Business? *Global Business Review*, *20*(6), 1423–1444. https://doi.org/10.1177/0972150919848935

Ajiferuke, I., Burell, Q., & Tague, J. (2005). Collaborative coefficient: A single measure of the degree of collaboration in research. *Scientometrics*, *14*(5–6), 421–433. https://doi.org/10.1007/bf02017100

Aleixandre, J. L., Aleixandre-Tudó, J. L., Bolaños-Pizarro, M., & Aleixandre-Benavent, R. (2015). Mapping the scientific research in organic farming: A bibliometric review. *Scientometrics*, *105*(1), 295–309. https://doi.org/10.1007/s11192-015-1677-4

Allman-Farinelli, M., Rahman, H., Nour, M., Wellard-Cole, L., & Watson, W. L. (2019). The role of supportive food environments to enable healthier choices when eating meals prepared outside the home: Findings from focus groups of 18 to 30-year-olds. *Nutrients*, *11*(9), 2217.

Alnajem, M., Mostafa, M. M., & ElMelegy, A. R. (2021). Mapping the first decade of circular economy research: A bibliometric network analysis. *Journal of Industrial and Production Engineering*, *38*(1), 29–50.

An, R., He, L., & Shen, M. J. (2020). Impact of neighbourhood food environment on diet and obesity in China: A systematic review. *Public Health Nutrition*, *23*(3), 457–473.

Anggraeni, A., Sulistyo, L. I. H., & Affandy, N. (2020a). The Antecedents of Satisfaction and Revisit Intention for Full-Service Restaurants: An Empirical Study of the Food and Beverage Industry in Jakarta. *International Journal of Asian Business and Information Management (IJABIM)*, *11*(3), 101–118.

Anggraeni, A., Sulistyo, L. I. H., & Affandy, N. (2020b). The Antecedents of Satisfaction and Revisit Intention for Full-Service Restaurants: An Empirical Study of the Food and Beverage Industry in

Jakarta. *International Journal of Asian Business and Information Management (IJABIM)*, *11*(3), 101–118.

Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, *11*(4), 959–975. https://doi.org/10.1016/j.joi.2017.08.007

Armenta-Medina, D., Ramirez-delReal, T. A., Villanueva-Vásquez, D., & Mejia-Aguirre, C. (2020). Trends on Advanced Information and Communication Technologies for Improving Agricultural Productivities: A Bibliometric Analysis. *Agronomy*, *10*(12), 1989. https://doi.org/10.3390/agronomy10121989

Arora, S. D., & Chakraborty, A. (2021). Intellectual structure of consumer complaining behavior (CCB) research: A bibliometric analysis. *Journal of Business Research*, *122*, 60–74.

Aryadoust, V., & Ang, B. H. (2021). Exploring the frontiers of eye tracking research in language studies: A novel co-citation scientometric review. *Computer Assisted Language Learning*, *34*(7), 898–933. https://doi.org/10.1080/09588221.2019.1647251

Atzori, R., Shapoval, V., & Murphy, K. S. (2018). Measuring Generation Y consumers' perceptions of green practices at Starbucks: An IPA analysis. *Journal of Foodservice Business Research*, *21*(1), 1–21. https://doi.org/10.1080/15378020.2016.1229090

Babin, B. J., Lee, Y., Kim, E., & Griffin, M. (2005). Modeling consumer satisfaction and word-of-mouth: Restaurant patronage in Korea. *Journal of Services Marketing*, *19*(3), 133–139. https://doi.org/10.1108/08876040510596803

Bakshy, E., Hofman, J. M., Mason, W. A., & Watts, D. J. (2011). Everyone's an influencer: Quantifying influence on twitter. *Proceedings of the Fourth ACM International Conference on Web Search and Data Mining*, 65–74. https://doi.org/10.1145/1935826.1935845

Batistič, S., & van der Laken, P. (2019). History, Evolution and Future of Big Data and Analytics: A Bibliometric Analysis of Its Relationship to Performance in Organizations. *British Journal of Management*, *30*(2), 229–251. https://doi.org/10.1111/1467-8551.12340

Benckendorff, P. (2009). Themes and Trends in Australian and New Zealand Tourism Research: A Social Network Analysis of Citations in Two Leading Journals (1994–2007). *Journal of Hospitality and Tourism Management*, *16*(1), 1–15. https://doi.org/10.1375/jhtm.16.1.1

Blöcher, K., & Alt, R. (2020). AI and robotics in the European restaurant sector: Assessing potentials for process innovation in a high-contact service industry. *Electronic Markets*, 1–23.

Boo, H. C., & Mattila, A. S. (2002). A Hotel Restaurant Brand Alliance Model. *Journal of Foodservice Business Research*, *5*(2), 5–23. https://doi.org/10.1300/J369v05n02_02

Bouzembrak, Y., Klüche, M., Gavai, A., & Marvin, H. J. (2019). Internet of Things in food safety: Literature review and a bibliometric analysis. *Trends in Food Science & Technology*, *94*, 54–64.

Bradach, J. L. (1997). Using the Plural Form in the Management of Restaurant Chains. *Administrative Science Quarterly*, *42*(2), 276–303. https://doi.org/10.2307/2393921

Broadus, R. N. (1987). Toward a definition of "bibliometrics." *Scientometrics*, *12*(5), 373–379. https://doi.org/10.1007/BF02016680

Bufquin, D., DiPietro, R., & Partlow, C. (2017). The influence of the DinEX service quality dimensions on casual-dining restaurant customers' satisfaction and behavioral intentions. *Journal of Foodservice Business Research*, *20*(5), 542–556. https://doi.org/10.1080/15378020.2016.1222744

Bujisic, M., Hutchinson, J., & Parsa, H. G. (2014). The effects of restaurant quality attributes on customer behavioral intentions. *International Journal of Contemporary Hospitality Management*, *26*(8), 1270–1291. https://doi.org/10.1108/IJCHM-04-2013-0162

Camillo, A., Kim, W. G., Moreo, P. J., & Ryan, B. (2010). A model of historical development and future trends of Italian cuisine in America. *International Journal of Hospitality Management*, *29*(4), 549–558. https://doi.org/10.1016/j.ijhm.2009.09.002

Capaldi, E. D. (1996). *Why we eat what we eat: The psychology of eating.* American Psychological Association.

Chakraborty, K., Mukherjee, K., Mondal, S., & Mitra, S. (2021). A systematic literature review and bibliometric analysis based on pricing related decisions in remanufacturing. *Journal of Cleaner Production*, *310*, 127265. https://doi.org/10.1016/j.jclepro.2021.127265

Chan, E. S. W., & Hon, A. H. Y. (2020). Application of extended theory of planned behavior model to ecological behavior intentions in the food and beverage service industry. *Journal of Foodservice Business Research*, *23*(2), 169–191. https://doi.org/10.1080/15378020.2020.1718402

Chandon, P., & Wansink, B. (2007). The Biasing Health Halos of Fast-Food Restaurant Health Claims: Lower Calorie Estimates and Higher Side-Dish Consumption Intentions. *Journal of Consumer Research*, *34*(3), 301–314. https://doi.org/10.1086/519499

Chandra, Y., & Walker, R. M. (2019). How Does A Seminal Article in Public Administration Diffuse and Influence the Field? Bibliometric Methods and the Case of Hood's "A Public Management For All Seasons?" *International Public Management Journal*, *22*(5), 712–742. https://doi.org/10.1080/10967494.2018.1498817

Chang, K.-C., & Cheng, Y.-S. (2021). How online service recovery reviews influence behavioral intentions in the hospitality context: Regulatory focus and loss aversion perspectives. *Journal of Hospitality and Tourism Management*, *46*, 440–455.

Chen, C., Dubin, R., & Kim, M. C. (2014). Orphan drugs and rare diseases: A scientometric review (2000–2014). *Expert Opinion on Orphan Drugs*, *2*(7), 709–724.

Chen, C., Hu, Z., Liu, S., & Tseng, H. (2012). Emerging trends in regenerative medicine: A scientometric analysis in CiteSpace. *Expert Opinion on Biological Therapy*, *12*(5), 593–608.

Chen, C., Song, I.-Y., Yuan, X., & Zhang, J. (2008). The thematic and citation landscape of data and knowledge engineering (1985–2007). *Data & Knowledge Engineering*, *67*(2), 234–259.

Chen, W.-K., Riantama, D., & Chen, L.-S. (2021). Using a text mining approach to hear voices of customers from social media toward the fast-food restaurant industry. *Sustainability*, *13*(1), 268.

Cheng, C.-C., Chen, C.-T., Hsu, F.-S., & Hu, H.-Y. (2012). Enhancing service quality improvement strategies of fine-dining restaurants: New insights from integrating a two-phase decision-making model of IPGA and DEMATEL analysis. *International Journal of Hospitality Management*, *31*(4), 1155–1166. https://doi.org/10.1016/j.ijhm.2012.02.003

Cheng, Y.-S., Kuo, N.-T., Chang, K.-C., & Wu, H.-T. (2021). Using Data Mining Methods to Predict Repeat Patronage Intention in the Restaurant Industry. *Journal of Quality Assurance in Hospitality & Tourism*, *0*(0), 1–27. https://doi.org/10.1080/1528008X.2021.2002787

Cho, H., Silver, N., Na, K., Adams, D., Luong, K. T., & Song, C. (2018). Visual cancer communication on social media: An examination of content and effects of #Melanomasucks. *Journal of Medical Internet Research*, *20*(9). https://doi.org/10.2196/10501

Choi, G., & Parsa, H. G. (2006). Green Practices II. *Journal of Foodservice Business Research*, *9*(4), 41–63. https://doi.org/10.1300/J369v09n04_04

Chuah, S. H.-W., Aw, E. C.-X., & Cheng, C.-F. (2021a). A silver lining in the COVID-19 cloud: Examining customers' value perceptions, willingness to use and pay more for robotic restaurants. *Journal of Hospitality Marketing & Management*, 1–28. https://doi.org/10.1080/19368623.2021.1926038

Chuah, S. H.-W., Aw, E. C.-X., & Cheng, C.-F. (2021b). A silver lining in the COVID-19 cloud: Examining customers' value perceptions, willingness to use and pay more for robotic restaurants. *Journal*

of Hospitality Marketing & Management, *0*(0), 1–28. https://doi.org/10.1080/19368623.2021.1926038

Chun-Hao, C., & Jian-Min, Y. (2012). A bibliometric study of financial risk literature: A historic approach. *Applied Economics*, *44*(22), 2827–2839. https://doi.org/10.1080/00036846.2011.566208

Ciotti, V., Bonaventura, M., Nicosia, V., Panzarasa, P., & Latora, V. (2016). Homophily and missing links in citation networks. *EPJ Data Science*, *5*, 1–14.

Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E., & Herrera, F. (2011). An approach for detecting, quantifying, and visualizing the evolution of a research field: A practical application to the fuzzy sets theory field. *Journal of Informetrics*, *5*(1), 146–166.

Colicchia, C., Creazza, A., Noè, C., & Strozzi, F. (2019). Information sharing in supply chains: A review of risks and opportunities using the systematic literature network analysis (SLNA). *Supply Chain Management: An International Journal*.

Conlin, M., Lynn, M., & O'Donoghue, T. (2003). The norm of restaurant tipping. *Journal of Economic Behavior & Organization*, *52*(3), 297–321. https://doi.org/10.1016/S0167-2681(03)00030-1

Corbet, S., Dowling, M., Gao, X., Huang, S., Lucey, B., & Vigne, S. A. (2019). An analysis of the intellectual structure of research on the financial economics of precious metals. *Resources Policy*, *63*, 101416.

Cuccurullo, C., Aria, M., & Sarto, F. (2016). Foundations and trends in performance management. A twenty-five years bibliometric analysis in business and public administration domains. *Scientometrics*, *108*(2), 595–611. https://doi.org/10.1007/s11192-016-1948-8

Culnan, M. J., O'Reilly III, C. A., & Chatman, J. A. (1990). Intellectual structure of research in organizational behavior, 1972–1984: A cocitation analysis. *Journal of the American Society for Information Science*, *41*(6), 453–458.

De Solla Price, D. J., & Beaver, D. (1966). Collaboration in an invisible college. *American Psychologist*, *21*(11), 1011–1018. https://doi.org/10.1037/h0024051

Della Corte, V., Del Gaudio, G., Sepe, F., & Sciarelli, F. (2019). Sustainable Tourism in the Open Innovation Realm: A Bibliometric Analysis. *Sustainability*, *11*(21), 6114. https://doi.org/10.3390/su11216114

Demiroz, F., & Haase, T. W. (2019). The concept of resilience: A bibliometric analysis of the emergency and disaster management literature. *Local Government Studies*, *45*(3), 308–327.

Ding, Y. (2011). Scientific collaboration and endorsement: Network analysis of coauthorship and citation networks. *Journal of Informetrics*, *5*(1), 187–203. https://doi.org/10.1016/j.joi.2010.10.008

DiPietro, R. (2017). Restaurant and foodservice research: A critical reflection behind and an optimistic look ahead. *International Journal of Contemporary Hospitality Management*.

DiPietro, R. B., Crews, T. B., Gustafson, C., & Strick, S. (2012). The Use of Social Networking Sites in the Restaurant Industry: Best Practices. *Journal of Foodservice Business Research*, *15*(3), 265–284. https://doi.org/10.1080/15378020.2012.706193

DiPietro, R. B., & Levitt, J. (2019). Restaurant authenticity: Factors that influence perception, satisfaction and return intentions at regional American-style restaurants. *International Journal of Hospitality & Tourism Administration*, *20*(1), 101–127.

Dixit, S., Jyoti Badgaiyan, A., & Khare, A. (2019). An integrated model for predicting consumer's intention to write online reviews. *Journal of Retailing and Consumer Services*, *46*, 112–120. https://doi.org/10.1016/j.jretconser.2017.10.001

Doreian, P. (1988). Measuring the relative standing of disciplinary journals. *Information Processing & Management*, *24*(1), 45–56. https://doi.org/10.1016/0306-4573(88)90077-5

Dziadkowiec, J., & Rood, A. S. (2015). Casual-Dining Restaurant Preferences: A Cross-Cultural Comparison. *Journal of Foodservice Business Research*, *18*(1), 73–91. https://doi.org/10.1080/15378020.2015.995755

Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, *2*(84), 523–538. https://doi.org/10.1007/s11192-009-0146-3

Fahimnia, B., Sarkis, J., & Davarzani, H. (2015). Green supply chain management: A review and bibliometric analysis. *International Journal of Production Economics*, *162*, 101–114. https://doi.org/10.1016/j.ijpe.2015.01.003

Fang, Y., Yin, J., & Wu, B. (2018). Climate change and tourism: A scientometric analysis using CiteSpace. *Journal of Sustainable Tourism*, *26*(1), 108–126. https://doi.org/10.1080/09669582.2017.1329310

Farzin, M., Bagheri Abbassalikosh, A., Sadeghi, M., & Makvandi, R. (2021). The effect of sensory brand experience and brand equity on WTP a price premium in Iranian fast food restaurants: Mediating role of eWOM. *Journal of Foodservice Business Research*, *0*(0), 1–21. https://doi.org/10.1080/15378020.2021.2017212

Ferreira, M. P., Pinto, C. F., & Serra, F. R. (2014). The transaction costs theory in international business research: A bibliometric study over three decades. *Scientometrics*, *98*(3), 1899–1922.

Filimonau, V., & Krivcova, M. (2017). Restaurant menu design and more responsible consumer food choice: An exploratory study of managerial perceptions. *Journal of Cleaner Production*, *143*, 516–527. https://doi.org/10.1016/j.jclepro.2016.12.080

Filimonau, V., Matute, J., Kubal-Czerwinska, M., Krzesiwo, K., & Mika, M. (2020). The determinants of consumer engagement in restaurant food waste mitigation in Poland: An exploratory study. *JOURNAL OF CLEANER PRODUCTION*, *247*. https://doi.org/10.1016/j.jclepro.2019.119105

Fortuna, G., Aria, M., Piscitelli, A., Mignogna, M. D., & Klasser, G. D. (2020). Global research trends in complex oral sensitivity disorder: A systematic bibliometric analysis of the structures of knowledge. *Journal of Oral Pathology & Medicine*, *49*(6), 565–579. https://doi.org/10.1111/jop.13077

Fosso Wamba, S., & Mishra, D. (2017). Big data integration with business processes: A literature review. *Business Process Management Journal*, *23*(3), 477–492. https://doi.org/10.1108/BPMJ-02-2017-0047

Fu, H.-Z., Wang, M.-H., & Ho, Y.-S. (2013). Mapping of drinking water research: A bibliometric analysis of research output during 1992–2011. *Science of The Total Environment*, *443*, 757–765. https://doi.org/10.1016/j.scitotenv.2012.11.061

Gaede, J., & Rowlands, I. H. (2018). Visualizing social acceptance research: A bibliometric review of the social acceptance literature for energy technology and fuels. *Energy Research & Social Science*, *40*, 142–158.

García-Lillo, F., Claver-Cortés, E., Marco-Lajara, B., & Úbeda-García, M. (2019). Identifying the 'knowledge base' or 'intellectual structure' of research on international business, 2000–2015: A citation/co-citation analysis of JIBS. *International Business Review*, *28*(4), 713–726.

Garfield, E. (1979). Is citation analysis a legitimate evaluation tool? *Scientometrics*, *1*(4), 359–375.

Garfield, E., Pudovkin, A. I., & Istomin, V. S. (2003). Why do we need algorithmic historiography? *Journal of the American Society for Information Science and Technology*, *54*(5), 400–412. https://doi.org/10.1002/asi.10226

Gavilan, D., Balderas-Cejudo, A., Fernández-Lores, S., & Martinez-Navarro, G. (2021). Innovation in online food delivery: Learnings from COVID-19. *International Journal of Gastronomy and Food Science*, *24*, 100330. https://doi.org/10.1016/j.ijgfs.2021.100330

Glänzel, W., & Schubert, A. (2005). Analysing Scientific Networks Through Co-Authorship. In H. F. Moed, W. Glänzel, & U. Schmoch (Eds.), *Handbook of Quantitative Science and Technology Research: The Use of Publication and Patent Statistics in Studies of S&T Systems* (pp. 257–276). Springer Netherlands. https://doi.org/10.1007/1-4020-2755-9_12

Glynn, R. W., Scutaru, C., Kerin, M. J., & Sweeney, K. J. (2010). Breast cancer research output, 1945-2008: A bibliometric and density-equalizing analysis. *Breast Cancer Research*, *12*(6), R108. https://doi.org/10.1186/bcr2795

Goodall, P., Rosamond, E., & Harding, J. (2014). A review of the state of the art in tools and techniques used to evaluate remanufacturing feasibility. *Journal of Cleaner Production*, *81*, 1–15. https://doi.org/10.1016/j.jclepro.2014.06.014

Gupta, S., McLaughlin, E., & Gomez, M. (2007). Guest Satisfaction and Restaurant Performance. *Cornell Hotel and Restaurant Administration Quarterly*, *48*(3), 284–298. https://doi.org/10.1177/0010880407301735

Halim, K. K., & Halim, S. (2019). Business Intelligence for Designing Restaurant Marketing Strategy: A Case Study. *Procedia Computer Science*, *161*, 615–622.

Han, H., & Ryu, K. (2009a). THE ROLES OF THE PHYSICAL ENVIRONMENT, PRICE PERCEPTION, AND CUSTOMER SATISFACTION IN DETERMINING CUSTOMER LOYALTY IN THE RESTAURANT INDUSTRY. *JOURNAL OF HOSPITALITY & TOURISM RESEARCH*, *33*(4), 487–510. https://doi.org/10.1177/1096348009344212

Han, H., & Ryu, K. (2009b). The Roles of the Physical Environment, Price Perception, and Customer Satisfaction in Determining Customer Loyalty in the Restaurant Industry. *Journal of Hospitality & Tourism Research*, *33*(4), 487–510. https://doi.org/10.1177/1096348009344212

Hanks, L., & Mattila, A. S. (2016). Consumer response to organic food in restaurants: A serial mediation analysis. *Journal of Foodservice Business Research*, *19*(1), 109–121. https://doi.org/10.1080/15378020.2016.1129228

Hjørland, B. (2013). Citation analysis: A social and dynamic approach to knowledge organization. *Information Processing & Management*, *49*(6), 1313–1325. https://doi.org/10.1016/j.ipm.2013.07.001

Holmes, M. R., Dodds, R., Deen, G., Lubana, A., Munson, J., & Quigley, S. (2018). Local and organic food on wheels: Exploring the use of local and organic food in the food truck industry. *Journal of Foodservice Business Research*, *21*(5), 493–510. https://doi.org/10.1080/15378020.2018.1465771

Hu, H.-H., Parsa, H. G., & Self, J. (2010). The Dynamics of Green Restaurant Patronage. *Cornell Hospitality Quarterly*, *51*(3), 344–362. https://doi.org/10.1177/1938965510370564

Huang, L., Chen, K., & Zhou, M. (2020). Climate change and carbon sink: A bibliometric analysis. *Environmental Science and Pollution Research*, *27*(8), 8740–8758. https://doi.org/10.1007/s11356-019-07489-6

Huifeng, P., & Ha, H.-Y. (2021). Temporal effects of online customer reviews on restaurant visit intention: The role of perceived risk. *Journal of Hospitality Marketing & Management*, 1–20.

Hur, Y. (Katie), & Adler, H. (2011). Employees' Perceptions of Restaurant Brand Image. *Journal of Foodservice Business Research*, *14*(4), 334–359. https://doi.org/10.1080/15378020.2011.624053

Jain, J., Walia, N., Singh, S., & Jain, E. (2021). Mapping the field of behavioural biases: A literature review using bibliometric analysis. *Management Review Quarterly*. https://doi.org/10.1007/s11301-021-00215-y

Jain, N. R. K., Liu-Lastres, B., & Wen, H. (2021). Does robotic service improve restaurant consumer experiences? An application of the value-co-creation framework. *Journal of Foodservice Business Research*, 1–19.

Jang, S. (Shawn), & Namkung, Y. (2009). Perceived quality, emotions, and behavioral intentions: Application of an extended Mehrabian–Russell model to restaurants. *Journal of Business Research*, *62*(4), 451–460. https://doi.org/10.1016/j.jbusres.2008.01.038

Jang, Y. J., Kim, W. G., & Bonn, M. A. (2011). Generation Y consumers' selection attributes and behavioral intentions concerning green restaurants. *International Journal of Hospitality Management*, *30*(4), 803–811. https://doi.org/10.1016/j.ijhm.2010.12.012

Jang, Y. J., & Zheng, T. (2020). Assessment of the environmental sustainability of restaurants in the US: The effects of restaurant characteristics on environmental sustainability performance. *Journal of Foodservice Business Research*, *23*(2), 133–148.

Jayantha, W. M., & Oladinrin, O. T. (2019). Knowledge mapping of office workspace: A scientometric review of studies. *Facilities*, *38*(3/4), 316–345. https://doi.org/10.1108/F-07-2018-0086

Jeon, H. M., Sung, H. J., & Kim, H. Y. (2020). Customers' acceptance intention of self-service technology of restaurant industry: Expanding UTAUT with perceived risk and innovativeness. *SERVICE BUSINESS*, *14*(4), 533–551. https://doi.org/10.1007/s11628-020-00425-6

Jeong, E., & Jang, S. (Shawn). (2011). Restaurant experiences triggering positive electronic word-of-mouth (eWOM) motivations. *INTERNATIONAL JOURNAL OF HOSPITALITY MANAGEMENT*, *30*(2), 356–366. https://doi.org/10.1016/j.ijhm.2010.08.005

Jia, S. (Sixue). (2020). Motivation and satisfaction of Chinese and U.S. tourists in restaurants: A cross-cultural text mining of online reviews. *Tourism Management*, *78*, 104071. https://doi.org/10.1016/j.tourman.2019.104071

Jung, S., Dalbor, M., & Lee, S. (2018). Internationalization as a determinant of systematic risk: The role of restaurant type. *International Journal of Contemporary Hospitality Management*.

Jung, S., Kim, J. H., Kang, K. H., & Kim, B. (2018a). Internationalization and corporate social responsibility in the restaurant industry: Risk perspective. *Journal of Sustainable Tourism*, *26*(7), 1105–1123.

Jung, S., Kim, J. H., Kang, K. H., & Kim, B. (2018b). Internationalization and corporate social responsibility in the restaurant industry: Risk perspective. *Journal of Sustainable Tourism*, *26*(7), 1105–1123.

Kapoor, K. K., Tamilmani, K., Rana, N. P., Patil, P., Dwivedi, Y. K., & Nerur, S. (2018). Advances in social media research: Past, present and future. *Information Systems Frontiers*, *20*(3), 531–558.

Kauppinen-Räisänen, H., Gummerus, J., & Lehtola, K. (2013). Remembered eating experiences described by the self, place, food, context and time. *British Food Journal*, *115*(5), 666–685. https://doi.org/10.1108/00070701311331571

Khan, G., & Wood, J. (2016). Knowledge Networks of the Information Technology Management Domain: A Social Network Analysis Approach. *Communications of the Association for Information Systems*, *39*(1). https://doi.org/10.17705/1CAIS.03918

Kim, B., & Lee, S. (2020). The impact of material and immaterial sustainability on firm performance: The moderating role of franchising strategy. *Tourism Management*, *77*, 103999.

Kim, H. J., McCahon, C., & Miller, J. (2003). Assessing Service Quality in Korean Casual-Dining Restaurants Using DINESERV. *Journal of Foodservice Business Research*, *6*(1), 67–86. https://doi.org/10.1300/J369v06n01_05

Kim, H., & Kim, W. G. (2005). The relationship between brand equity and firms' performance in luxury hotels and chain restaurants. *Tourism Management*, *26*(4), 549–560. https://doi.org/10.1016/j.tourman.2004.03.010

Kim, J., Jun, J., Tang, L., & Zheng, T. (2018). The behavioral and intermediate effects of advertising on firm performance: An empirical investigation of the restaurant industry. *Journal of Hospitality & Tourism Research*, *42*(2), 319–337.

Kim, M. J., & Hall, C. M. (2020). Can sustainable restaurant practices enhance customer loyalty? The roles of value theory and environmental concerns. *Journal of Hospitality and Tourism Management*, *43*, 127–138.

Kim, M., & Kim, Y. (2014). Corporate social responsibility and shareholder value of restaurant firms. *International Journal of Hospitality Management*, *40*, 120–129. https://doi.org/10.1016/j.ijhm.2014.03.006

Kim, W. G., Li, J. J., & Brymer, R. A. (2016). The impact of social media reviews on restaurant performance: The moderating role of excellence certificate. *International Journal of Hospitality Management*, *55*, 41–51.

Kivela, J., Inbakaran, R., & Reece, J. (1999). Consumer research in the restaurant environment, Part 1: A conceptual model of dining satisfaction and return patronage. *International Journal of Contemporary Hospitality Management*, *11*(5), 205–222. https://doi.org/10.1108/09596119910272739

Knapczyk, A., Francik, S., Jewiarz, M., Zawiślak, A., & Francik, R. (2021). Thermal Treatment of Biomass: A Bibliometric Analysis—The Torrefaction Case. *Energies*, *14*(1), 162. https://doi.org/10.3390/en14010162

Knoke, D., & Yang, S. (2019). *Social Network Analysis*. SAGE Publications.

Kozup, J. C., Creyer, E. H., & Burton, S. (2003). Making Healthful Food Choices: The Influence of Health Claims and Nutrition Information on Consumers' Evaluations of Packaged Food Products and Restaurant Menu Items. *Journal of Marketing*, *67*(2), 19–34. https://doi.org/10.1509/jmkg.67.2.19.18608

Kriegel, H.-P., Kröger, P., Sander, J., & Zimek, A. (2011). Density-based clustering. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, *1*(3), 231–240.

Kuhn, T. (2021). The Structure of Scientific Revolutions. In *The Structure of Scientific Revolutions* (pp. 176–177). Princeton University Press. https://doi.org/10.1515/9781400831296-024

Kumar, S., & Jan, J. Mohd. (2015). The assortativity of scholars at a research-intensive university in Malaysia. *The Electronic Library*, *33*(2), 162–180. https://doi.org/10.1108/EL-02-2013-0018

Kwon, J.-H., Jung, S.-H., Choi, H.-J., & Kim, J. (2020). Antecedent factors that affect restaurant brand trust and brand loyalty: Focusing on US and Korean consumers. *Journal of Product & Brand Management*.

Ladhari, R. (2009). A review of twenty years of SERVQUAL research. *International Journal of Quality and Service Sciences*, *1*(2), 172–198. https://doi.org/10.1108/17566690910971445

Latapí Agudelo, M. A., Jóhannsdóttir, L., & Davídsdóttir, B. (2019). A literature review of the history and evolution of corporate social responsibility. *International Journal of Corporate Social Responsibility*, *4*(1), 1–23.

Le, T. H., Arcodia, C., Novais, M. A., & Kralj, A. (2022). How consumers perceive authenticity in restaurants: A study of online reviews. *International Journal of Hospitality Management*, *100*, 103102. https://doi.org/10.1016/j.ijhm.2021.103102

Lee, C., Hallak, R., & Sardeshmukh, S. R. (2016). Innovation, entrepreneurship, and restaurant performance: A higher-order structural model. *Tourism Management*, *53*, 215–228.

Lee, C., Hallak, R., & Sardeshmukh, S. R. (2019). Creativity and innovation in the restaurant sector: Supply-side processes and barriers to implementation. *Tourism Management Perspectives*, *31*, 54–62.

Lee, K., Conklin, M., Cranage, D. A., & Lee, S. (2014). The role of perceived corporate social responsibility on providing healthful foods and nutrition information with health-consciousness as a

moderator. *International Journal of Hospitality Management*, *37*, 29–37. https://doi.org/10.1016/j.ijhm.2013.10.005

Lee, S., Han, H., Radic, A., & Tariq, B. (2020). Corporate social responsibility (CSR) as a customer satisfaction and retention strategy in the chain restaurant sector. *Journal of Hospitality and Tourism Management*, *45*, 348–358.

Lee, W. S., Choi, C., & Moon, J. (2018). The upper echelon effect on restaurant franchising: The moderating role of internationalization. *International Journal of Culture, Tourism and Hospitality Research*.

Lee, W. S., & Moon, J. (2018). Restaurant internationalization and the top management team. *International Journal of Hospitality & Tourism Administration*, *19*(4), 397–415.

Lepkowska-White, E. (2017). Exploring the challenges of incorporating social media marketing strategies in the restaurant business. *Journal of Internet Commerce*, *16*(3), 323–342.

Lepkowska-White, E., & Parsons, A. (2019). Strategies for monitoring social media for small restaurants. *Journal of Foodservice Business Research*, *22*(4), 351–374. https://doi.org/10.1080/15378020.2019.1626207

Leydesdorff, L. (2006). Theories of citation? *Scientometrics*, *43*(1), 5–25. https://doi.org/10.1007/bf02458391

Li, H., Xie, K. L., & Zhang, Z. (2020). The effects of consumer experience and disconfirmation on the timing of online review: Field evidence from the restaurant business. *International Journal of Hospitality Management*, *84*, 102344. https://doi.org/10.1016/j.ijhm.2019.102344

Li, L., Liu, Y., Zhu, H., Ying, S., Luo, Q., Luo, H., Kuai, X., Xia, H., & Shen, H. (2017). A bibliometric and visual analysis of global geo-ontology research. *Computers & Geosciences*, *99*, 1–8. https://doi.org/10.1016/j.cageo.2016.10.006

Liao, H., Tang, M., Li, Z., & Lev, B. (2019). Bibliometric analysis for highly cited papers in operations research and management science from 2008 to 2017 based on Essential Science Indicators. *Omega*, *88*, 223–236. https://doi.org/10.1016/j.omega.2018.11.005

Liao, H., Tang, M., Zhang, X., & Al-Barakati, A. (2019). Detecting and Visualizing in the Field of Hesitant Fuzzy Sets: A Bibliometric Analysis from 2009 to 2018. *International Journal of Fuzzy Systems*, *21*(5), 1289–1305. https://doi.org/10.1007/s40815-019-00656-4

Lima, M. M. de, Mainardes, E., & Cavalcanti, A. L. (2019). Influence of social media on restaurant consumers: A case study of Crab island restaurant. *Journal of Foodservice Business Research*, *22*(5), 413–432. https://doi.org/10.1080/15378020.2019.1631657

Lin, J.-S., & Himelboim, I. (2019). Political Brand Communities as Social Network Clusters: Winning and Trailing Candidates in the GOP 2016 Primary Elections. *Journal of Political Marketing*, *18*(1–2), 119–147. https://doi.org/10.1080/15377857.2018.1478661

Lin, S., & Jiang, S.-L. (2021). Relationships between physical environment, ethnic authenticity, and willingness to pay in Thai select restaurants. *Journal of Foodservice Business Research*, 1–16.

Liu, H., Chen, H., Hong, R., Liu, H., & You, W. (2020). Mapping knowledge structure and research trends of emergency evacuation studies. *Safety Science*, *121*, 348–361. https://doi.org/10.1016/j.ssci.2019.09.020

Liu, K.-N., Hu, C., Lin, M.-C., Tsai, T.-I., & Xiao, Q. (2020). Brand knowledge and non-financial brand performance in the green restaurants: Mediating effect of brand attitude. *International Journal of Hospitality Management*, *89*, 102566.

Lo, A., King, B., & Mackenzie, M. (2017). Restaurant Customers' Attitude toward Sustainability and Nutritional Menu Labels. *Journal of Hospitality Marketing & Management*, *26*(8), 846–867. https://doi.org/10.1080/19368623.2017.1326865

Lotka, A. J. (1926). The frequency distribution of scientific productivity. *Journal of the Washington Academy of Sciences*, *16*(12), 317–323.

Lynn, M. (2006). Race Differences in Restaurant Tipping. *Journal of Foodservice Business Research*, *9*(4), 99–113. https://doi.org/10.1300/J369v09n04_07

Lynn, M., & Grassman, A. (1990). Restaurant tipping: An examination of three 'rational' explanations. *Journal of Economic Psychology*, *11*(2), 169–181. https://doi.org/10.1016/0167-4870(90)90002-Q

Ma, J., & Ghiselli, R. (2016). Measuring, monitoring, and managing the green practices in mid-sized restaurants in China. *Journal of Foodservice Business Research*, *19*(1), 64–76. https://doi.org/10.1080/15378020.2016.1129221

Mikkelsen, B. E., & Sylvest, J. (2012). Organic Foods on the Public Plate: Technical Challenge or Organizational Change? *Journal of Foodservice Business Research*, *15*(1), 64–83. https://doi.org/10.1080/15378020.2011.650541

Min, J., Yang, K., & Kim, J. (2021). The role of perceived vulnerability in restaurant customers' co-creation behavior and repatronage intention during the COVID-19 pandemic. *Journal of Vacation Marketing*, 13567667211014932.

Mishra, D., Luo, Z., Jiang, S., Papadopoulos, T., & Dubey, R. (2017). A bibliographic study on big data: Concepts, trends and challenges. *Business Process Management Journal*.

Moayyed, H., Kelly, B., Feng, X., & Flood, V. (2017). Is living near healthier food stores associated with better food intake in regional Australia? *International Journal of Environmental Research and Public Health*, *14*(8), 884.

Moreno, P., & Tejada, P. (2019). Reviewing the progress of information and communication technology in the restaurant industry. *Journal of Hospitality and Tourism Technology*.

Mostafa, M. M. (2015). Do Products' Warning Labels Affect Consumer Safe Behavior? A Meta-Analysis of the Empirical Evidence. *Journal of Business & Economic Studies*, *21*.

Mostafa, M. M. (2020). A knowledge domain visualization review of thirty years of halal food research: Themes, trends and knowledge structure. *Trends in Food Science & Technology*, *99*, 660–677.

Moya-Anegón, Sci. G. F. de, Vargas-Quesada, B., Chinchilla-Rodríguez, Z., Corera-Álvarez, E., Munoz-Fernández, F. J., & Herrero-Solana, V. (2007). Visualizing the marrow of science. *Journal of the American Society for Information Science and Technology*, *58*(14), 2167–2179. https://doi.org/10.1002/asi.20683

Mursid, A., & Wu, C. H.-J. (2021). Halal company identity and halal restaurant loyalty: The role of customer satisfaction, customer trust and customer-company identification. *Journal of Islamic Marketing*.

Namkung, Y., & Jang, S. (2013). Effects of restaurant green practices on brand equity formation: Do green practices really matter? *International Journal of Hospitality Management*, *33*, 85–95. https://doi.org/10.1016/j.ijhm.2012.06.006

Narin, F., Stevens, K., & Whitlow, E. S. (1991). Scientific co-operation in Europe and the citation of multinationally authored papers. *Scientometrics*, *21*(3), 313–323. https://doi.org/10.1007/BF02093973

Ok, C., Back, K.-J., & Shanklin, C. W. (2005). Dimensional Roles of Justice on Post-Recovery Overall Satisfaction and Behavioral Intentions. *Journal of Foodservice Business Research*, *8*(3), 3–22. https://doi.org/10.1300/J369v08n03_02

Okumus, B., Koseoglu, M. A., & Ma, F. (2018). Food and gastronomy research in tourism and hospitality: A bibliometric analysis. *International Journal of Hospitality Management*, *73*, 64–74.

Oliveira, B., & Casais, B. (2019). The importance of user-generated photos in restaurant selection. *Journal of Hospitality and Tourism Technology*.

Ottenbacher, M. C., & Harrington, R. J. (2009). The product innovation process of quick-service restaurant chains. *International Journal of Contemporary Hospitality Management*, *21*(5), 523–541. https://doi.org/10.1108/09596110910967782

Padgett, B. C., Kim, H., Goh, B. K., & Huffman, L. (2013). The Usefulness of the Theory of Planned Behavior: Understanding U.S. Fast Food Consumption of Generation Y Chinese Consumers. *Journal of Foodservice Business Research*, *16*(5), 486–505. https://doi.org/10.1080/15378020.2013.850382

Pantelidis, I. S. (2010). Electronic Meal Experience: A Content Analysis of Online Restaurant Comments. *Cornell Hospitality Quarterly*, *51*(4), 483–491. https://doi.org/10.1177/1938965510378574

Park, C. (2004). Efficient or enjoyable? Consumer values of eating-out and fast food restaurant consumption in Korea. *International Journal of Hospitality Management*, *23*(1), 87–94. https://doi.org/10.1016/j.ijhm.2003.08.001

Pasadeos, Y., Phelps, J., & Kim, B.-H. (1998). Disciplinary Impact of Advertising Scholars: Temporal Comparisons of Influential Authors, Works and Research Networks. *Journal of Advertising*, *27*(4), 53–70. https://doi.org/10.1080/00913367.1998.10673569

Perramon, J., Alonso-Almeida, M. del M., Llach, J., & Bagur-Femenías, L. (2014). Green practices in restaurants: Impact on firm performance. *Operations Management Research*, *7*(1), 2–12. https://doi.org/10.1007/s12063-014-0084-y

Pieters, R., & Baumgartner, H. (2002). Who Talks to Whom? Intra- and Interdisciplinary Communication of Economics Journals. *Journal of Economic Literature*, *40*(2), 483–509. https://doi.org/10.1257/002205102320161348

Piwowar-Sulej, K., Krzywonos, M., & Kwil, I. (2021). Environmental entrepreneurship – Bibliometric and content analysis of the subject literature based on H-Core. *Journal of Cleaner Production*, *295*, 126277. https://doi.org/10.1016/j.jclepro.2021.126277

Popy, N. N., & Bappy, T. A. (2020). Attitude toward social media reviews and restaurant visit intention: A Bangladeshi perspective. *South Asian Journal of Business Studies*.

Pritchard, A. (1969a). Statistical Bibliography or Bibliometrics. *Journal of Documentation*, *25*(4), 348–349.

Pritchard, A. (1969b). Statistical bibliography or bibliometrics. *Journal of Documentation*, *25*(4), 348–349.

Qi, T., Wang, T., Ma, Y., Zhang, W., & Zhu, Y. (2018). A scientometric analysis of e-participation research. *International Journal of Crowd Science*.

Qian, J., Law, R., & Wei, J. (2019). Knowledge mapping in travel website studies: A scientometric review. *Scandinavian Journal of Hospitality and Tourism*, *19*(2), 192–209.

Raab, C., Baloglu, S., & Chen, Y.-S. (2018). Restaurant Managers' Adoption of Sustainable Practices: An Application of Institutional Theory and Theory of Planned Behavior. *Journal of Foodservice Business Research*, *21*(2), 154–171. https://doi.org/10.1080/15378020.2017.1364591

Rajput, A., & Gahfoor, R. Z. (2020). Satisfaction and revisit intentions at fast food restaurants. *Future Business Journal*, *6*, 1–12.

Ramos-Rodríguez, A.-R., & Ruíz-Navarro, J. (2004). Changes in the intellectual structure of strategic management research: A bibliometric study of the Strategic Management Journal, 1980–2000. *Strategic Management Journal*, *25*(10), 981–1004. https://doi.org/10.1002/smj.397

Rejeb, A., Abdollahi, A., Rejeb, K., & Treiblmaier, H. (2022). Drones in agriculture: A review and bibliometric analysis. *Computers and Electronics in Agriculture*, *198*, 107017.

Rejeb, A., Keogh, J. G., Zailani, S., Treiblmaier, H., & Rejeb, K. (2020). Blockchain Technology in the Food Industry: A Review of Potentials, Challenges and Future Research Directions. *Logistics*, *4*(4), 27. https://doi.org/10.3390/logistics4040027

Rejeb, A., Rejeb, K., Abdollahi, A., & Treiblmaier, H. (2022). The Big Picture on Instagram Research: Insights from a Bibliometric Analysis. *Telematics and Informatics*, 101876.

Rejeb, A., Rejeb, K., Simske, S. J., & Keogh, J. G. (2021). Blockchain technology in the smart city: A bibliometric review. *Quality & Quantity*. https://doi.org/10.1007/s11135-021-01251-2

Rejeb, A., Rejeb, K., Simske, S., & Treiblmaier, H. (2021). Blockchain Technologies in Logistics and Supply Chain Management: A Bibliometric Review. *Logistics*, *5*(4), 72. https://doi.org/10.3390/logistics5040072

Rejeb, A., Rejeb, K., Zailani, S. H. M., & Abdollahi, A. (2022). Knowledge Diffusion of the Internet of Things (IoT): A Main Path Analysis. *Wireless Personal Communications*. https://doi.org/10.1007/s11277-022-09787-8

Rejeb, A., Simske, S., Rejeb, K., Treiblmaier, H., & Zailani, S. (2020). Internet of Things research in supply chain management and logistics: A bibliometric analysis. *Internet of Things*, *12*, 100318. https://doi.org/10.1016/j.iot.2020.100318

Rejeb, A., Treiblmaier, H., Rejeb, K., & Zailani, S. (2021). Blockchain research in healthcare: A bibliometric review and current research trends. *Journal of Data, Information and Management*, *3*(2), 109–124. https://doi.org/10.1007/s42488-021-00046-2

Roberts, K. R., & Barrett, B. B. (2011). Restaurant Managers' Beliefs About Food Safety Training: An Application of the Theory of Planned Behavior. *Journal of Foodservice Business Research*, *14*(3), 206–225. https://doi.org/10.1080/15378020.2011.594379

Rodríguez-López, M. E., Alcántara-Pilar, J. M., Del Barrio-García, S., & Muñoz-Leiva, F. (2020). A review of restaurant research in the last two decades: A bibliometric analysis. *International Journal of Hospitality Management*, *87*, 102387.

Roe, S. J., & Smith, R. P. (2021). Asking for help: Restaurant crowdfunding during COVID-19. *Journal of Foodservice Business Research*, *0*(0), 1–22. https://doi.org/10.1080/15378020.2021.2006038

Ryu, K., Han, H., & Jang, S. (Shawn). (2010). Relationships among hedonic and utilitarian values, satisfaction and behavioral intentions in the fast-casual restaurant industry. *INTERNATIONAL JOURNAL OF CONTEMPORARY HOSPITALITY MANAGEMENT*, *22*(2–3), 416–432. https://doi.org/10.1108/09596111011035981

Ryu, K., Han, H., & Kim, T.-H. (2008). The relationships among overall quick-casual restaurant image, perceived value, customer satisfaction, and behavioral intentions. *INTERNATIONAL JOURNAL OF HOSPITALITY MANAGEMENT*, *27*(3), 459–469. https://doi.org/10.1016/j.ijhm.2007.11.001

Ryu, K., Lee, H., & Gon Kim, W. (2012). The influence of the quality of the physical environment, food, and service on restaurant image, customer perceived value, customer satisfaction, and behavioral intentions. *International Journal of Contemporary Hospitality Management*, *24*(2), 200–223. https://doi.org/10.1108/09596111211206141

Sankey, M. (1898). *Introductory note on the thermal efficiency of steam-engines*. *134*.

Schubert, F., Kandampully, J., Solnet, D., & Kralj, A. (2010). Exploring Consumer Perceptions of Green Restaurants in the US. *Tourism and Hospitality Research*, *10*(4), 286–300. https://doi.org/10.1057/thr.2010.17

Seo, S., Almanza, B., Miao, L., & Behnke, C. (2015). The Effect of Social Media Comments on Consumers' Responses to Food Safety Information. *Journal of Foodservice Business Research*, *18*(2), 111–131. https://doi.org/10.1080/15378020.2015.1029384

Shanker, S., Sharma, H., & Barve, A. (2021). Assessment of risks associated with third-party logistics in restaurant supply chain. *Benchmarking: An International Journal*.

Shannon, C. E. (1948). A mathematical theory of communication. *The Bell System Technical Journal*, *27*(3), 379–423. https://doi.org/10.1002/j.1538-7305.1948.tb01338.x

Shapoval, V., Murphy, K. S., & Severt, D. (2018). Does service quality really matter at Green restaurants for Millennial consumers? The moderating effects of gender between loyalty and satisfaction.

Journal of Foodservice Business Research, *21*(6), 591–609. https://doi.org/10.1080/15378020.2018.1483698

Shiau, W.-L., Dwivedi, Y. K., & Yang, H. S. (2017). Co-citation and cluster analyses of extant literature on social networks. *International Journal of Information Management*, *37*(5), 390–399. https://doi.org/10.1016/j.ijinfomgt.2017.04.007

Small, H. (1973). Co-citation in the scientific literature: A new measure of the relationship between two documents. *Journal of the American Society for Information Science*, *24*(4), 265–269.

Small, H. (1999). Visualizing science by citation mapping. *Journal of the American Society for Information Science*, *50*(9), 799–813.

Soundararajan, K., Ho, H. K., & Su, B. (2014). Sankey diagram framework for energy and exergy flows. *Applied Energy*, *136*, 1035–1042.

Stevens, P., Knutson, B., & Patton, M. (1995). Dineserv: A tool for measuring service quality in restaurants. *The Cornell Hotel and Restaurant Administration Quarterly*, *36*(2), 5–60. https://doi.org/10.1016/0010-8804(95)93844-K

Stopar, K. (2016). Presence of nanotechnology in agriculture: Bibliometric approach. *Acta Agriculturae Slovenica*, *107*(2), 497–507. https://doi.org/10.14720/aas.2016.107.2.20

Su, H.-N., & Lee, P.-C. (2010). Mapping knowledge structure by keyword co-occurrence: A first look at journal papers in Technology Foresight. *Scientometrics*, *85*(1), 65–79.

Tahai, A., & Rigsby, J. T. (1998). Information processing using citations to investigate journal influence in accounting. *Information Processing & Management*, *34*(2–3), 341–359.

Talukdar, D. (2015). Research productivity patterns in the organizational behavior and human resource management literature. *The International Journal of Human Resource Management*, *26*(4), 467–484. https://doi.org/10.1080/09585192.2011.561218

Tang, J., Repetti, T., & Raab, C. (2019). Perceived fairness of revenue management practices in casual and fine-dining restaurants. *Journal of Hospitality and Tourism Insights*, *2*(1), 92–108. https://doi.org/10.1108/JHTI-10-2018-0063

Teng, C.-C., Lu, A. C. C., & Huang, T.-T. (2018). Drivers of consumers' behavioral intention toward green hotels. *International Journal of Contemporary Hospitality Management*.

Teng, Y.-M., & Wu, K.-S. (2019). Sustainability development in hospitality: The effect of perceived value on customers' green restaurant behavioral intention. *Sustainability*, *11*(7), 1987.

Theodoulidis, B., Diaz, D., Crotto, F., & Rancati, E. (2017). Exploring corporate social responsibility and financial performance through stakeholder theory in the tourism industries. *Tourism Management*, *62*, 173–188.

Torabi Farsani, N., Sadeghi, R., Shafiei, Z., & Shahzamani Sichani, A. (2016). Measurement of Satisfaction with ICT Services Implementation and Innovation in Restaurants (Case Study: Isfahan, Iran). *Journal of Travel & Tourism Marketing*, *33*(2), 250–262. https://doi.org/10.1080/10548408.2015.1050540

Tuncer, İ., Unusan, C., & Cobanoglu, C. (2021). Service quality, perceived value and customer satisfaction on behavioral intention in restaurants: An integrated structural model. *Journal of Quality Assurance in Hospitality & Tourism*, *22*(4), 447–475.

Unal, A., & Teskereci, G. (2021). Mapping the evidence-based practice research field in nursing from 1995 to 2021: A bibliometric analysis. *International Journal of Nursing Knowledge*, *n/a*(n/a). https://doi.org/10.1111/2047-3095.12347

van der Merwe, R., Berthon, P., Pitt, L., & Barnes, B. (2007). Analysing "theory networks": Identifying the pivotal theories in marketing and their characteristics. *Journal of Marketing Management*, *23*(3–4), 181–206. https://doi.org/10.1362/026725707X196332

van Eck, N. J., & Waltman, L. (2011). Text mining and visualization using VOSviewer. *ArXiv:1109.2058 [Cs]*. http://arxiv.org/abs/1109.2058

Vieira, F., & Brito, C. (2015). Science mapping in industrial marketing. *Journal of Business & Industrial Marketing*, *30*(1), 105–115. https://doi.org/10.1108/JBIM-02-2014-0027

Vig, S., & Agarwal, R. N. (2021). Repercussions of COVID-19 on small restaurant entrepreneurs: The Indian context. *Strategic Change*, *30*(2), 145–152. https://doi.org/10.1002/jsc.2398

Vogel, B., Reichard, R. J., Batistič, S., & Černe, M. (2021). A bibliometric review of the leadership development field: How we got here, where we are, and where we are headed. *The Leadership Quarterly*, *32*(5), 101381. https://doi.org/10.1016/j.leaqua.2020.101381

Wall, E. A., & Berry, L. L. (2007). The Combined Effects of the Physical Environment and Employee Behavior on Customer Perception of Restaurant Service Quality. *Cornell Hotel and Restaurant Administration Quarterly*, *48*(1), 59–69. https://doi.org/10.1177/0010880406297246

Wang, C., Lim, M. K., Zhao, L., Tseng, M.-L., Chien, C.-F., & Lev, B. (2020). The evolution of Omega-The International Journal of Management Science over the past 40 years: A bibliometric overview. *Omega*, *93*, 102098. https://doi.org/10.1016/j.omega.2019.08.005

Weiss, R., Feinstein, A. H., & Dalbor, M. (2004). Customer Satisfaction of Theme Restaurant Attributes and Their Influence on Return Intent. *Journal of Foodservice Business Research*, *7*(1), 23–41. https://doi.org/10.1300/J369v07n01_03

Wetzstein, A., Feisel, E., Hartmann, E., & Benton, W. C. (2019). Uncovering the supplier selection knowledge structure: A systematic citation network analysis from 1991 to 2017. *Journal of Purchasing and Supply Management*, *25*(4), 100519. https://doi.org/10.1016/j.pursup.2018.10.002

Wong, C. Y. (2021). Editorial. *International Journal of Physical Distribution & Logistics Management*, *51*(3), 205–211. https://doi.org/10.1108/IJPDLM-04-2021-410

Wu, C. H.-J., & Liang, R.-D. (2009). Effect of experiential value on customer satisfaction with service encounters in luxury-hotel restaurants. *International Journal of Hospitality Management*, *28*(4), 586–593. https://doi.org/10.1016/j.ijhm.2009.03.008

Wu, H.-C., & Mohi, Z. (2015). Assessment of Service Quality in the Fast-Food Restaurant. *Journal of Foodservice Business Research*, *18*(4), 358–388. https://doi.org/10.1080/15378020.2015.1068673

Yan, X., Wang, J., & Chau, M. (2015). Customer revisit intention to restaurants: Evidence from online reviews. *Information Systems Frontiers*, *17*(3), 645–657. https://doi.org/10.1007/s10796-013-9446-5

Yang, Y., Liu, H., & Chen, X. (2020). COVID-19 and restaurant demand: Early effects of the pandemic and stay-at-home orders. *International Journal of Contemporary Hospitality Management*, *32*(12), 3809–3834. https://doi.org/10.1108/IJCHM-06-2020-0504

Yarış, A., & Aykol, Ş. (2021). The impact of social media use on restaurant choice. *Anatolia*, 1–13.

Yi, S., Zhao, J., & Joung, H.-W. (DAVID). (2018). Influence of price and brand image on restaurant customers' restaurant selection attribute. *Journal of Foodservice Business Research*, *21*(2), 200–217. https://doi.org/10.1080/15378020.2017.1368808

Yoon, B., & Chung, Y. (2018). The effects of corporate social responsibility on firm performance: A stakeholder approach. *Journal of Hospitality and Tourism Management*, *37*, 89–96.

York, V. K., Brannon, L. A., Roberts, K. R., Shanklin, C. W., & Howells, A. D. (2009). Using the Theory of Planned Behavior to Elicit Restaurant Employee Beliefs about Food Safety: Using Surveys Versus Focus Groups. *Journal of Foodservice Business Research*, *12*(2), 180–197. https://doi.org/10.1080/15378020902910777

Youn, H., Song, S., Lee, S., & Kim, J.-H. (2016). Does the restaurant type matter for investment in corporate social responsibility? *International Journal of Hospitality Management*, *58*, 24–33. https://doi.org/10.1016/j.ijhm.2016.07.004

Young, J. A., Clark, P. W., & McIntyre, F. S. (2007). An Exploratory Comparison of the Casual Dining Experience. *Journal of Foodservice Business Research*, *10*(3), 87–105. https://doi.org/10.1300/J369v10n03_06

Yu, D., Xu, Z., Kao, Y., & Lin, C.-T. (2018). The Structure and Citation Landscape of IEEE Transactions on Fuzzy Systems (1994–2015). *IEEE Transactions on Fuzzy Systems*, *26*(2), 430–442. https://doi.org/10.1109/TFUZZ.2017.2672732

Yu, J., & Muñoz-Justicia, J. (2020). A Bibliometric Overview of Twitter-Related Studies Indexed in Web of Science. *Future Internet*, *12*(5), 91. https://doi.org/10.3390/fi12050091

Zainuldin, M. H., & Lui, T. K. (2021). A bibliometric analysis of CSR in the banking industry: A decade study based on Scopus scientific mapping. *International Journal of Bank Marketing*, *40*(1), 1–26. https://doi.org/10.1108/IJBM-04-2020-0178

Zanetta, L. D., Hakim, M. P., & da Cunha, D. T. (2021). COVID-19 policies and recommendations for foodservice reopening: An integrative review. *Journal of Foodservice Business Research*, *0*(0), 1–25. https://doi.org/10.1080/15378020.2021.2006035

Zapata-Cuervo, N., Montes-Guerra, M. I., & Jeong, M. (2021). How do restaurants respond to the COVID-19 pandemic? Lessons from Colombian restauranteurs and their survival strategies. *Journal of Foodservice Business Research*, *0*(0), 1–22. https://doi.org/10.1080/15378020.2021.2006037

Zhang, Y., Huang, K., Yu, Y., & Yang, B. (2017). Mapping of water footprint research: A bibliometric analysis during 2006–2015. *Journal of Cleaner Production*, *149*, 70–79. https://doi.org/10.1016/j.jclepro.2017.02.067

Zhang, Y., Pu, S., Lv, X., Gao, Y., & Ge, L. (2020). Global trends and prospects in microplastics research: A bibliometric analysis. *Journal of Hazardous Materials*, *400*, 123110. https://doi.org/10.1016/j.jhazmat.2020.123110

Zhang, Z., Ye, Q., Law, R., & Li, Y. (2010). The impact of e-word-of-mouth on the online popularity of restaurants: A comparison of consumer reviews and editor reviews. *International Journal of Hospitality Management*, *29*(4), 694–700. https://doi.org/10.1016/j.ijhm.2010.02.002

Zhu, J., & Hua, W. (2017). Visualizing the knowledge domain of sustainable development research between 1987 and 2015: A bibliometric analysis. *Scientometrics*, *110*(2), 893–914.

Zou, X., Yue, W. L., & Le Vu, H. (2018). Visualization and analysis of mapping knowledge domain of road safety studies. *Accident Analysis & Prevention*, *118*, 131–145.

Zupic, I., & Čater, T. (2015). Bibliometric Methods in Management and Organization. *Organizational Research Methods*, *18*(3), 429–472. https://doi.org/10.1177/1094428114562629