

Trends and research user intent as a satisfaction in using online food delivery app a bibliometric analysis

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Abstract: Consumer eating habits have changed as a result of the quick development of food delivery services, especially in emerging nations. The purpose of this study is to methodically investigate topic developments and research trends related to client satisfaction with online food delivery services. Sixty-three Scopus-indexed journal articles published between 2017 and 2025 were examined using Biblioshiny and VOSviewer. Performance analysis and scientific mapping approaches identified prominent authors, top journals, productive nations, cooperation networks, and emerging research topics. The results show a consistent increase in academic interest, with Portugal exhibiting the highest citation impact, while India and Malaysia contributed the most papers. Major study subjects include customer satisfaction, website quality, service quality, convenience, price, and the impact of COVID-19. E-service quality has become the most prevalent and rapidly developing topic. User experience optimization and digital service excellence are increasingly important in customer satisfaction research within online food delivery services. The findings have significant implications for practitioners by emphasizing the strategic importance of website quality, service efficiency, and convenience in enhancing customer satisfaction and maintaining competitiveness. For researchers, the results highlight research gaps and suggest future directions.

Keywords: Bibilometric analysis, Convenience, Customer satisfaction, Price, Service quality, VOSviewer, Website quality.

1. Introduction

The satisfaction of customers has been transformed by online food businesses. Satisfied customers will become loyal and patronize the brand. This is supported by a study conducted by Ling et al. [1]. They asked what people are happy about with the help of food delivery apps during COVID-19. This is important because satisfied customers are key to the long-term success of any company, and contented customers are associated with the degree of pleasure in purchasing food. Trend and user study research indicate that ease of use is important for using online food delivery apps. An analysis of the literature shows that this expanding trend on the internet can be utilized by e-businesses in Malaysia. Customer satisfaction with online food delivery is a factor that all online food delivery companies should consider. When businesses understand what customers are pleased with, they can enhance transaction security, web design, and create new features to optimize the platform. Initial research revealed that the quality of websites, service quality, price, and convenience influence students' satisfaction with food delivery apps at MSU. Online food delivery satisfaction is crucial for all e-food companies planning to go online. Knowing what customers are satisfied with allows businesses to improve transaction security, webpage design, and introduce new elements to enhance the platform. Most initial research on this topic has shown that MSU students' contentment with online meal delivery apps depends on factors such as website quality, service quality, price, and convenience. The main aim of the current study is to understand what makes online

meal delivery services fulfilling for users. The online food business has influenced customer satisfaction, as satisfied customers are more likely to become loyal and recommend the brand. This research is justified because it aims to understand what would make users happier with mobile food delivery applications during the COVID-19 pandemic [2].

It is therefore significant in the sense that the satisfaction of your clients is paramount to the long-term success of a company, and their satisfaction is directly related to the degree of pleasure they receive during the process. Additionally, satisfaction has been influenced by the quality aspect of websites. In the context of mobile food delivery applications, the greater the variety of restaurants and menu choices, the higher the quality of information, and consequently, the less time the client will spend on the ordering process [3]. The three aspects of a web that lead to overall quality include information quality, web design, and security [4]. Accordingly, this is significant since I have proposed that the contentment of users and their eventual persistence in using applications could be attributed to the quality of the site. Moreover, satisfaction has been influenced by the quality of service factor. Better yet, service quality influences the level of satisfaction. It is what the customer feels during the initial visit to the site, until they receive their goods or services, and how the customer support agency of the site performs [5]. Thus, customers will be far better equipped to place an order in an app once they have a positive delivery experience [3]. This demonstrates that pleasant experiences with the app have a direct positive impact on the level of user contentment.

One of the factors that influences satisfaction is price. Kim and Hwang [6] demonstrate that online shoppers are concerned with price comparison. Thus, the willingness of customers to re-download mobile food delivery apps should be increased. Previous research studies identified that the greatest source of satisfaction with online meal delivery is financial incentives, such as discounts and special promotions. The latter is also utilized in addressing issues related to reinforcing communication, managing risks, and fostering mutual understanding. The latter is also employed in terms of overcoming the problem of strengthening communication, risk mitigation, and promoting mutual understanding. Lastly, there is also the issue of convenience that influences satisfaction. Satisfaction is also influenced by convenience. Nowadays, individuals have such tight schedules that they do not want to cease their activities to go and have a bite to eat, but instead cook at home. The new state of mobile applications allows one to order food online without any difficulties. Doub et al. [7] discovered that consumers are willing to use online delivery apps when they consider them a time-saving resource. Online delivery is convenient, fast, and accurate, as explained by Dixon et al. [8], who state that customers prefer this mode of delivery. The modern world has become simpler with the use of digital tools, and as such, companies need to be digitalized. Online meal delivery is a new reality of our lives since the COVID-19 outbreak last year. The experience of using these apps has taught customers both the good and the bad.

According to the Theory of Planned Behaviour developed by Al Amin et al. [2], customers will be more satisfied with the website, service, price, and convenience. The COVID-19 pandemic altered the utilization of mobile food delivery applications among people [1]. The study used 200 participants. The model has an R^2 of 0.565, indicating it explains 56.5 percent of the variation in satisfaction with mobile food delivery apps during COVID-19. Useful features, however, were good apps, but price and service were not as crucial. The highest impact on satisfaction was the best quality of the website. Al Amin believes that buyers do not simply depend on trial and error. His theory on online meal delivery will be analyzed to determine people's satisfaction with these services. According to the theory proposed by Ling et al. [1], satisfaction increases with the help of a website, service, price, and convenience. Mobile food delivery is still impacted by COVID-19 [1]. 200 respondents were involved in the survey. The model describes 56.5 percent of satisfaction ($R^2 = 0.565$). Effective apps are convenient, and the cost and service do not matter much. The quality of websites with the most influence was the largest. The Theory of Planned Behaviour developed by Ling predicts that customer satisfaction and adoption of Bangladeshi mobile food delivery apps can be attained based on a positive attitude. It will also establish the level of customer satisfaction regarding online food delivery. The recommendation to an e-food business is to pay attention to the major elements that may affect user satisfaction among MSU students. The increasing

Internet usage in Malaysia can be exploited by e-businesses. Determining the factors that satisfy customers with online food delivery is highly crucial for all e-food businesses aiming to expand online. Once businesses achieve satisfaction, it is possible to enhance the level of safety in transactions, improve web design quality, and offer features to make the online platform more robust. Initial research indicates that website quality, service quality, price, and convenience influence customer satisfaction.

The present study of online meal-delivery apps is quite sparse and is concentrated on a limited scope, although the number of individuals interested in customer satisfaction has increased. Most research considers measures such as publication patterns, co-citations, and keyword analysis, disregarding the qualitative aspects of websites, service quality, convenience, and overall customer satisfaction when using online food delivery apps. Many studies continue to retrospectively examine past data, neglecting the future of academia and the online market. These gaps highlight the need for more comprehensive and proactive research into customer satisfaction with online meal delivery apps. This research is significant as it provides one of the earliest systematic bibliometric maps of satisfaction in this field, compiling multiple research items into a clear picture. The paper analyzes 63 articles from the Scopus database, identifying prominent authors, reputable journals, and emerging issues. The findings help policymakers, researchers, and the food industry understand how to improve user satisfaction and promote the use of online meal delivery applications in the transportation sector. Additionally, the paper demonstrates the influence of customer satisfaction on website quality, service quality, pricing, convenience, and overall satisfaction, as well as the transformation of the food and transportation industries. Notably, the research indicates that teams of various disciplines should collaborate on customer happiness, pricing, convenience, service quality, and site quality. This provides a solid foundation for further investigation and intervention into the digital transformation of food and transportation. The bibliometric analysis will be used to examine various subjects within the study. It will be employed to analyze a range of topics, with internet academic databases and research archives searched to locate articles discussing satisfaction with online food delivery applications. The number of papers published annually will be examined, and reputable journals frequently containing research on user satisfaction with online meal delivery services will be identified. Articles where individuals express happiness or dissatisfaction with these apps will be analyzed to determine which countries publish the most on this subject. The most relevant authors will be those who have written the most papers and whose work is most frequently cited. The titles of the most cited research articles will be obtained, noting which have many local citations and which have many international citations. The article with the highest number of references or citations will be identified. To observe changes in the topic concerning online food delivery app satisfaction, previous literature reviews and meta-analyses will be considered. This study verified previous results by analyzing publication trends related to online meal delivery satisfaction using bibliometric tools in the Scopus database. The research examined not only keywords, publication trends, and most referenced literature but also compared various publications based on language, issue, topic, accessibility, and source journal.

2. Literature Review

Website quality, service quality, price, and convenience have influenced satisfaction. Online meal delivery services have become increasingly important in people's lives since the COVID-19 outbreak last year. Customers have learned both positively and negatively through interactions with these applications. This is significant because customer satisfaction is key to a company's long-term success, and satisfaction is directly related to the enjoyment during the consumption process. Satisfied customers are more likely to become repeat customers and brand advocates. A similar study conducted by Ling et al. [1] aimed to understand the factors contributing to user happiness with mobile food delivery applications during the COVID-19 pandemic. The study involved 200 respondents. The results indicated that a measurement method was employed, and their findings showed very high levels of convergent and discriminant validity.

In addition to this, the quality factor regarding websites has influenced satisfaction. In mobile food delivery applications, the more restaurants and menu options available, the higher the information quality. Consequently, this reduces the time clients spend on ordering processes [3]. The three aspects that most

significantly determine site quality are information quality, site design, and site security [4]. Therefore, this matter of importance has been indicated that the quality of the site could explain customer satisfaction and their persistence in using the applications. It is also possible to justify this claim by referring to similar research conducted by Ling et al. [1], which aimed to understand factors contributing to user happiness of mobile food delivery apps during the COVID-19 epidemic. The study involved 200 respondents as the sample. Its conclusion, based on a measurement method, determined that both convergent and discriminant validities were high. The research reveals that customer satisfaction with mobile meal delivery services is significantly influenced by the quality and convenience of the site. However, the importance of the quality and cost of the service was found to be trivial. It has been established that the quality of the website is the most significant factor in determining customer happiness.

More than that, the service quality factor has affected satisfaction. The consumer's experience from the first website visit until receiving goods or services, including customer support quality, influences satisfaction [5]. This is important because a positive delivery experience is crucial to the likelihood of using an online food delivery app [3]. So, it's clear that app users' positive experiences directly correlate with their degree of contentment. Not only that, but the price factor also affects satisfaction. Kim and Hwang [6] highlight the importance of price comparison for customers in the online marketplace. This is important because the client's re-download intent for mobile food delivery applications must be enhanced. Financial incentives, such as discounts and special promotions, have been proven in past research to be the most significant determinants of consumer satisfaction with online meal delivery services [9, 10]. Lastly, the convenience factor has affected satisfaction. These days, individuals are too busy to stop what they're doing to wait for their meal, so they often choose to cook at home instead of going out to restaurants. Mobile app advancements have made it possible to place online meal orders due to technological progress. It has been observed [7] that consumers would be interested in using online meal delivery applications if they saw them as a way to save time. Customers choose online meal delivery because of the convenience, quickness, and accuracy of the ordering process [8]. Thus, this is important because it is crucial to the prosperity of internet trade. Convenience, in terms of time savings, is a predictor of consumer satisfaction with online meal delivery services, as shown by research [9].

The Theory of Planned Behaviour by Al Amin et al. [2] provides theoretical support for the idea that factors such as website quality, service quality, pricing, and convenience significantly impact customer happiness. Research conducted by Ling et al. [1] to determine what aspects impact consumers' satisfaction with mobile food delivery services during the COVID-19 pandemic lends credence to this notion as well. Two hundred people participated in the study. Using a quantitative methodology, the researchers demonstrated strong convergent and discriminant validity. A value of 0.565 was determined for R², indicating that during the COVID-19 pandemic, the model explains 55.5% of the variance in consumers' satisfaction levels with food delivery applications on their mobile devices. The research shows that the quality and convenience of the website significantly influence customer satisfaction with mobile meal delivery services. However, the importance of service cost and quality was deemed insignificant. No single variable has a greater impact on consumer satisfaction than website quality. Conversely, the concept of the Theory of Planned Behaviour by Ling et al. [1], which includes attitude, might help forecast customer happiness and continued use of mobile food delivery applications in Bangladesh. Therefore, the Theory of Planned Behaviour by Ling et al. [1] will be applied in this research to investigate factors influencing customer satisfaction with online food delivery apps.

Website quality and simplicity significantly influence customer satisfaction with mobile food delivery apps, according to statistics. However, the importance of service quality and pricing appears minimal. The quality of a website remains the most critical factor affecting customer satisfaction levels. On the other hand, the concept of this Theory of Planned Behaviour by Al Amin et al. [2] suggests that buyers have graduated from the trial-and-error phase of product familiarization. Hence, the Theory of Planned Behaviour by Al Amin et al. [2] will be applied in this research to investigate factor that influences on customer satisfaction when using the online food delivery app.

Findings on the relationship between website quality and satisfaction. Website quality has a positive and significant effect on satisfaction. This claim can also be supported by similar research done by Ling et al. [1], whose goal of research is to identify the elements that impact the satisfaction of COVID-19 mobile food delivery app customers. As part of the study, 200 participants were polled. We discovered high levels of convergent and discriminant validity in that study, which used a measuring technique. An R^2 value of 0.565 was computed. During the COVID-19 epidemic, 56.5% of the variation in customer satisfaction with mobile food delivery services can be explained by this model. Customer happiness with food delivery apps for mobile devices has been significantly affected by the usability and quality of the website, it seems. Service quality and pricing were found to be of little consequence, nevertheless. Researchers found that, of all the factors that affect customers' satisfaction, the quality of a website had the most impact. Other than that, results regarding the correlation between content quality and happiness on websites. Optimal website quality significantly impacts user happiness. This claim can also be supported by similar research done by Azizul et al. [11] with the purpose of studying to examine the influence on consumer perceived value of five quality factors reflecting conveniences, design, trustworthiness, affordability, and a variety of food options linked with meal delivery applications. The sample that was involved in that research was 276 consumers. The findings of that research concluded that the price point of the meal delivery app is the most essential factor for young working people since they are still in the early stages of their professional development.

Findings on the relationship between service quality and satisfaction. Service quality has a positive and significant effect on satisfaction. Ling et al. [1] conducted a comparable study to identify the factors that affect customer satisfaction during COVID-19 through mobile food delivery app clients, lending credence to this conclusion. Was found that the study's usability and quality of the website seem to have a substantial impact on customer contentment with mobile meal delivery applications. Regardless, we discovered that price and service quality were unimportant. There is no variable that has a greater impact on consumer satisfaction than the quality of a website. Results about the connection between valuation and contentment. Satisfaction is positively and significantly impacted by price. Research conducted by Ling et al. [1] to determine what aspects impact consumers' satisfaction with mobile food delivery services during the COVID-19 pandemic lends credence to this notion as well. The research shows that the quality and convenience of the website have a significant influence on customer satisfaction with mobile meal delivery services. The importance of service cost and quality, however, was deemed insignificant. There is no variable that has a greater impact on consumer satisfaction than the quality of a website. Research on the correlation between price and happiness is another area of interest. Satisfaction is positively and significantly impacted by price. This assertion is backed by comparable research conducted by Azizul et al. [11]. Besides that, findings on the relationship between convenience and satisfaction. The impact of convenience on satisfaction is favourable and statistically significant. The study aimed to investigate how five quality factors convenience, design, trustworthiness, affordability, and variety of food options related to meal delivery applications impact consumer perceived value. In all, 276 customers made up the sample for that study. Researchers found that, since young workers are still starting out in their careers, the cost of the meal delivery service is the most important consideration for them.

3. Methodology

In order to do the bibliometric analysis, the bibliometric toolbox will be used. The toolbox has two methods: the basic technique and the enrichment technique. There are two main parts to the method, which are performance analysis (A) and science mapping (B). Although the main methodologies have many potential applications, this study will narrow its focus to just a handful. R and VOSviewer were two programs that were useful for the bibliometric analysis. In bibliometric analysis, a large body of data is quantitatively studied and then shown as themes, networks, research components, and descriptive analysis. Bibliometric analysis like this one, "was also undertaken by Badenes-Rocha et al. [12]," may help researchers examine how a subject has developed and how its themes have been organized. The

research is also objective and devoid of bias. The bibliographic data analysis in this work was also carried out by Nasir et al. [13]. The trends and research directions were derived using science mapping and performance analysis. Performance analysis examines the roles of various stakeholders in a research project, such as authors, countries, publishers, journals, and institutions within the study area. The purpose of science mapping is to establish connections among research components. As also undertaken by earlier studies [12-15], combining scientific mapping and enrichment approaches provides the conceptual framework of a study area and its fundamental topics, linking different research parts effectively.

A bibliometric analysis database is compiled from the Scopus database. As noted by Jakhar [15], Scopus is considered the most rigorous and systematic database for bibliometric analysis and is acknowledged as the premier database for such research, supported by prior research [12-15]. Scopus is recognized as the most comprehensive database, encompassing a diverse array of information on articles, with the stipulation that papers must adhere to stringent criteria for inclusion. Several keywords are recognized for optimal search, including "Satisfaction," "Satisfaction in using online food delivery app," and "Asia." The optimal keyword was "Satisfaction in using online food delivery app." This article will analyze satisfaction in using online food delivery apps. A search was performed on the Scopus database using the phrase "Satisfaction in using online food delivery app," resulting in the retrieval of 63 papers. The language of publications was not considered, as other language publications exist. Journal articles were subsequently selected for publication. For this investigation, 63 papers were ultimately chosen. No additional sorting criteria were used beyond these two, as doing so could reduce the number of publications and impact the bibliometric analysis.

4. Results

4.1. Quantity Of Publications and Total Years of Publishing

The sum of each publication is an approach for performance analysis. The total number of articles published on the research subject is considered. An integral part of the annual scientific output is the sixty-three conclusions drawn from the published papers. The year of publication in journals served as the criterion for grouping the articles. Figure 1 suggests that research on the satisfaction of utilizing online meal delivery apps is increasing annually. A single publication was made in 2017, but by 2022, there were six, and by 2023 and 2024, there were fifteen and twenty-one, respectively. We will continue to count eight papers until October 2025. The "active years of publishing" measure indicates how long the phenomenon has been the subject of field investigation. The active year started in 2017, and groundbreaking research is ongoing. Given the pattern shown in Figures 1 and 2, there are still comparatively fewer studies conducted annually; thus, further research on this subject is needed.

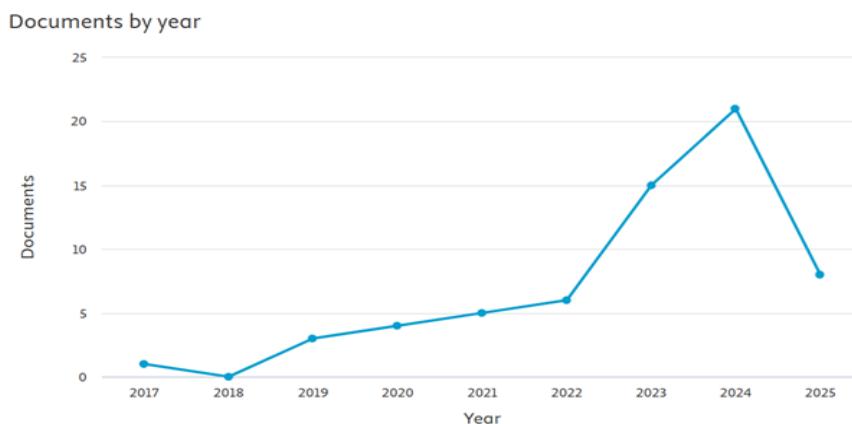


Figure 1.
Includes publications over the years 2017–2025.

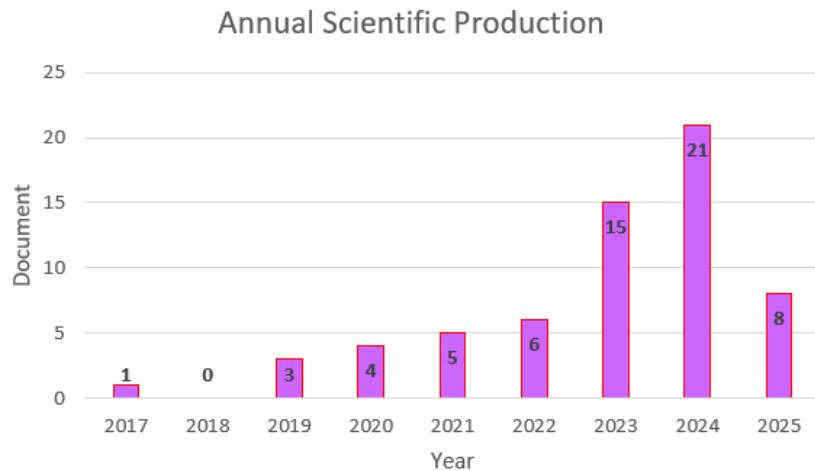


Figure 2.
Includes year-to-year publications from 2017 to 2025.

4.2. Most Encouraging Publications

Promising journals are those that publish the highest number of papers on a certain field. To identify potential publications, we used R software to apply Bradford's law. Several journals cover the topic of online meal delivery app satisfaction, but the most notable are listed in Table 1. The British Food Journal has an advantage with five articles on Happiness related to using online meal delivery services. The following journals have an edge over others: Transportation, Transportation Research Part A Policy and Practice, International Journal of Quality and Reliability Management, International Journal on Food System Dynamics, Journal of Foodservice Business Research, Journal of Retailing and Consumer Services, and Sage Open, which has two articles in the field of Satisfaction in using online food delivery apps. Compared to other journals, Advances in Mathematics Scientific Journal has a single article on Satisfaction in utilizing online food delivery apps, but it still holds significance. As shown in Table 1, some journals offer more benefits than others. Publications that show potential were selected to examine Bradford's law. The outcome was a graph illustrating the number of articles published by each journal, along with the source name. This graph was then transformed into a table, as seen in Table 1. Researchers studying Satisfaction in using online food delivery apps will benefit significantly from Bradford's law analysis, which identifies the most relevant journals publishing content on the topic. This allows researchers to quickly find and select a few key journals to support their studies. Journals that publish multiple articles on a subject are more likely to influence future academic work.

Table 1.

Shows the name of the journal along with the number of a paper published.

No.	Name of journals	No. of published
1.	British Food Journal	5
2.	International Journal of Contemporary Hospitality Management	2
3.	International Journal of Quality and Reliability Management	2
4.	International Journal on Food System Dynamics	2
5.	Journal of Foodservice Business Research	2
6.	Journal of Retailing and Consumer Services	2
7.	Sage Open	2
8.	Advances in Mathematics Scientific Journal	1
9.	Annals of Data Science	1
10.	Archives of Design Research	1

4.3. Preeminent Nations

The countries with the most citations and publications are considered leaders in research. The analytical task involves examining the database using R software. Finding the top countries in terms of satisfaction with online meal delivery apps is achieved by analyzing the findings based on the countries' scientific productivity and citations. The dominance of certain countries can be inferred from both the number of publications and citations. Therefore, we will examine the top 10 countries from both perspectives. Figures 2 and 3 show that, while Portugal has the highest average article citations (197.50), India has more documents than any other country (15). Despite not having a single document in the top ten, Thailand surprisingly ranks second in average document citations. Pakistan ranked lower in citations than several other countries, notably the UK, despite having more published articles overall. A similar situation occurred with China. This country's counterpart received more citations overall, even though it did not rank in the top ten, unlike Thailand. To facilitate understanding, the data from Figures 3 and 4 were translated into a tabular format in Table 2. Based on the data, Portugal and India appear to lead in satisfaction with food delivery apps. In terms of average article citations, Portugal, Thailand, China, and the United Kingdom are notable nations.

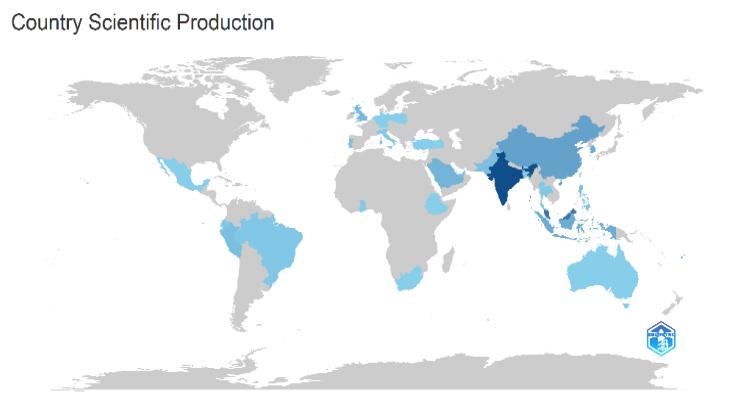


Figure 3.
Represents a world map illustrating the number of documents published by each country.

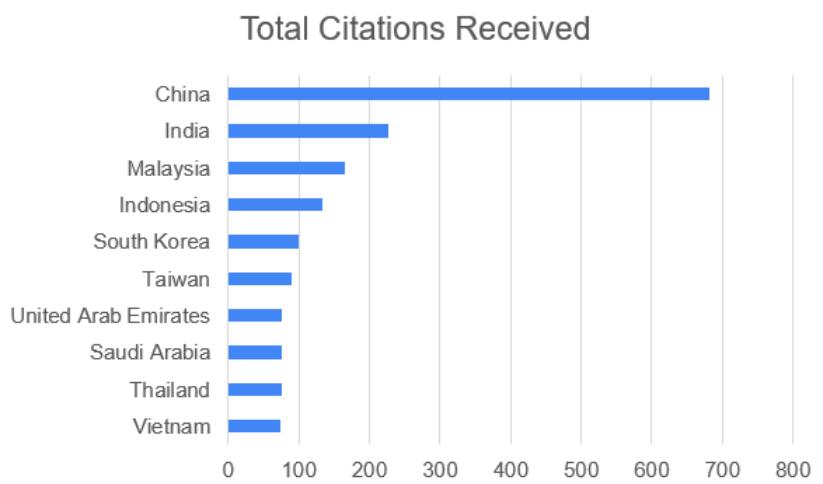


Figure 4.
Shows the number of citations received by each country's documents.

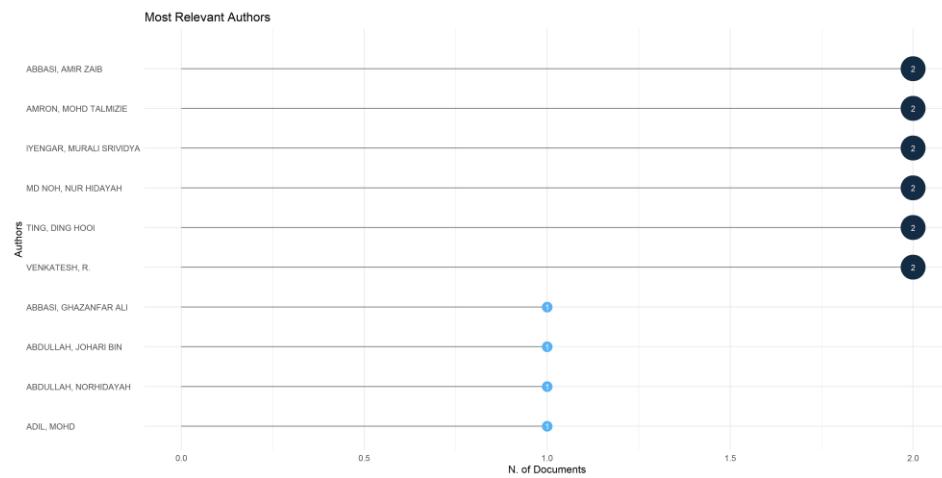
Table 2.

Represents the countries' names, the total number of published documents, and the corresponding citation counts.

Rank	Country	Document	Rank	Country	Average Article Citations
1	India	15	1	Portugal	197.50
2	Malaysia	12	2	Thailand	82.00
3	South Korea	6	3	China	52.20
4	China	5	4	Australia	49.00
5	Indonesia	4	5	Puerto Rico	49.00
6	Pakistan	4	6	Hong Kong	46.00
7	Saudi Arabia	4	7	Germany	44.00
8	United Kingdom	3	8	United Kingdom	35.00
9	Portugal	2	9	Bhutan	34.00
10	Taiwan	2	10	Pakistan	20.25

4.4. Most Essential Authors

Whether authors are most relevant is determined by the number of articles published by each. The R software tallied all the articles they had published about Malaysia and the number of people satisfied with the online meal delivery service to get the result. The results show that the more papers an author has authored, the more significant they are. Figure 5 displays the 10 most relevant authors (5). It is clear that Abbasi, Amir Zaib, Venkatesh R., and Adil Mohd. each have one paper, whereas Abbasi, Ghazanfar Ali, and Venkatesh R. each have two. Reading about the top 10 referenced authors might provide insight into their contributions and areas for improvement.

**Figure 5.**

Shows the authors' names and the number of papers published by them.

4.5. Notable Authors

The most cited authors on any topic are those who have published the most academic publications. All that is necessary are citations. As a result, the total document count was utilized to identify notable authors. The most famous writers will have the most documents in their accounts, while the least notable authors will have fewer citations. At 377 documents each, authors like Bacao Fernando Lucas and Zhao Yuyang stand head and shoulders above the others. Second place goes to writers like Eamsinvattana Wichai and Siyal Saeed, who each have 82 documents. Figure 6 displays the remaining writers.

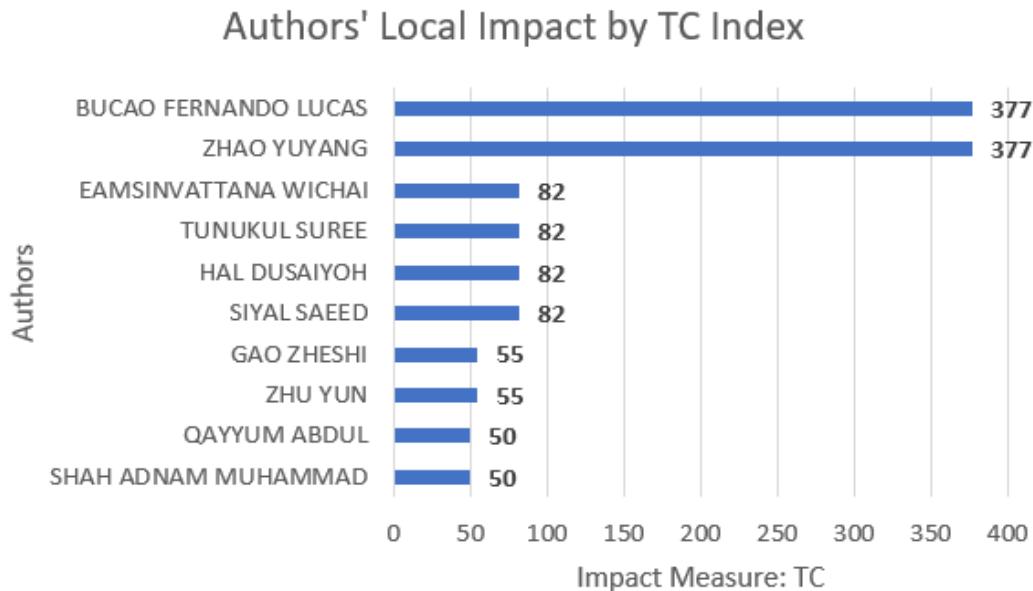


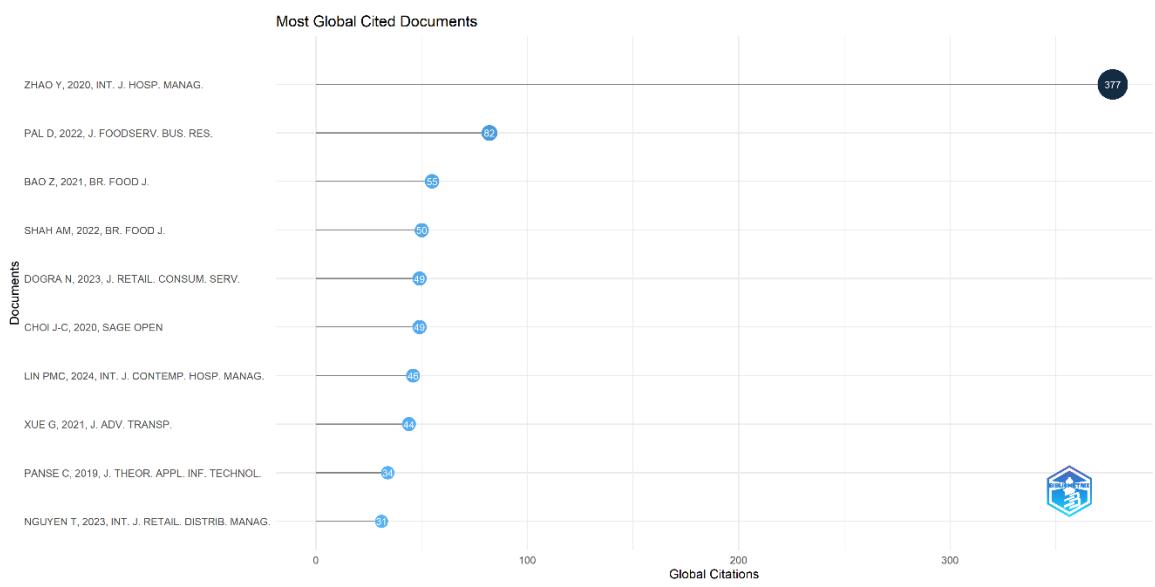
Figure 6.
Presents the names and total document numbers of the writer.

4.6. Citation Analysis

One method for scientific mapping is citation analysis. A reference is a connection to a publication when it appears in another publication. According to Jakhar [15], this was likewise done. Global citation and local citation are the two main criteria used in citation analysis. In citation analysis, the number of citations a piece of writing receives from readers is one way to measure its influence.

4.6.1. Most Global Cited Documents

The term "most internationally cited texts" describes publications with the highest number of citations in the field, without any filtering. Jakhar [15] also conducted this study. One definition of "global citations" is a publication's impact factor, which includes citations from both within and outside its subject area. Other authors' decisions to include citations in their works may be significantly influenced by the top ten most referenced publications worldwide. All articles mentioning or discussing "Satisfaction in using online food delivery apps" cite these sources. The ten most impactful publications are shown in Figure 7, with their analysis in Table 3. Figure 7 was used to identify the top ten most cited publications globally. Table 3 includes the titles of the articles, authors, and citation counts for these ten publications.

**Figure 7.**

Represents the works with the highest number of citations worldwide.

Source: Zhao and Bacao [16]; Pal, et al. [17]; Bao and Zhu [18]; Shah, et al. [19]; Dogra, et al. [20]; Choi [21]; Lin, et al. [22]; Xue, et al. [23]; Upadhyay, et al. [24] and Nguyen, et al. [25].

Table 3.

Lists the top 10 most referenced articles in the world along with their titles, authors, and number of citations.

No.	Article Title	Authors	Global citation
1.	What factors determine customers' continued use of food delivery apps during the 2019 novel coronavirus pandemic period?	Zhao, 2020, Int. J. Hosp. Manag.	377
2.	Using online food delivery applications during the COVID-19 lockdown period: What drives university students' satisfaction and loyalty?	Pal, 2022, J. Foodserv. Bus. Res.	82
3.	Why customers intend to reuse food delivery apps: evidence from China.	Bao, 2021, Br. Food J.	55
4.	Adoption of mobile food ordering apps for O2O food delivery services during the COVID-19 outbreak.	Shah, 2022, Br. Food J.	50
5.	Unraveling customer repurchase intention in OFDL context: An investigation using a hybrid technique of SEM and fsQCA.	Dogra, 2023, J. Retail. Consum. Serv.	49
6.	User familiarity and satisfaction with food delivery mobile applications.	Choi, 2020, Sage Open	49
7.	Service quality of online food delivery mobile applications: an examination of the spillover effects of mobile app satisfaction.	Lin, 2024, Int. J. Contemp. Hosp. Manag.	46
8.	Optimization of rider scheduling for a food delivery service in the O2O business.	Xue, 2021, J. Adv. Transp.	44
9.	A study on principal component analysis over a wireless channel	Upadhyay, 2019, J. Theor. Appl. Inf. Technol.	34
10.	Food delivery app continuance: a dual model and segmentation approach.	Nguyen, 2023, Int. J. Retail. Distrib. Manag.	31

Source: Zhao and Bacao [16]; Pal, et al. [17]; Bao and Zhu [18]; Shah, et al. [19]; Dogra, et al. [20]; Choi [21]; Lin, et al. [22]; Xue, et al. [23]; Upadhyay, et al. [24] and Nguyen, et al. [25].

4.6.2. Most Local Cited Documents

Citations from other articles within the same subject area are called "local cited documents." For instance, if an article states that "was also undertaken by Jakhar [15]," it is citing a publication within the same domain. Local citations, otherwise stated, are ones that are unique to the subject area of the resources. As an illustration, a paper about satisfaction in using online food delivery apps is referenced in another work about satisfaction in using online food delivery apps. Consequently, most articles that are cited locally focus on works that are often discussed or referred to in the field. To learn more about the

subject, look at the documents shown in Figure 8. These materials are particularly pertinent to the subject of satisfaction in using online food delivery apps and can be considered trustworthy sources for obtaining first papers. It should be highlighted that, for the clear reasons stated in their definition, local citations are always lower than global citations. The analysis of Figure 8 is completed in the table.

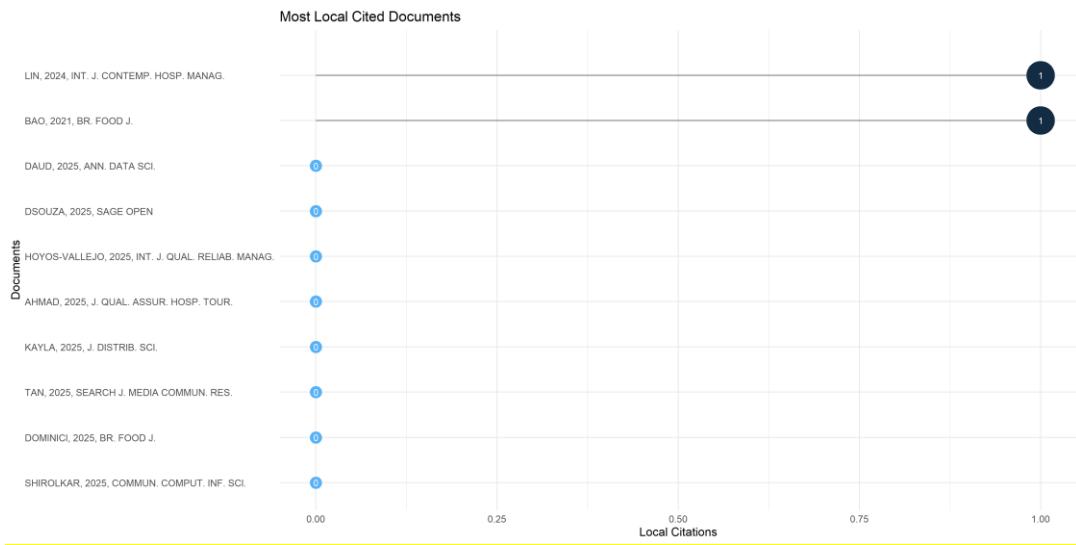


Figure 8.

Displays papers indicating the aggregate count of local citations received.

Source: Lin, et al. [22]; Bao and Zhu [18]; Daud, et al. [26]; Dsouza, et al. [27]; Hoyos Vallejo and Chinelato [28]; Ahmad, et al. [29]; Kayla [30]; Tan, et al. [31]; Dominici, et al. [32] and Shirolkar and Patil [33].

Table 4.

Reveals the article title, authors' names, and citations of the ten most locally referenced documents.

No.	Article Title	Authors	Local Citations
1.	Service quality of online food delivery mobile application: an examination of the spillover effects of mobile app satisfaction	Lin, 2024, Int. J. Contemp. Hosp. Manag.	1
2.	Why customers have the intention to reuse food delivery apps: evidence from China	Bao, 2021, Br. Food J.	1
3.	Determining the Correlation among the Users' Satisfaction and Familiarity with Malay Entrepreneurs' Food Delivery Mobile Applications in Malaysia	Daud, 2025, Ann. Data Sci.	0
4.	Factors Influencing Students' Satisfaction with Online Food Delivery Services: An Empirical Study	Dsouza, 2025, Sage Open	0
5.	Delivering trust: how food safety performance drives loyalty across the online ordering journey	Hoyos-Vallejo, 2025, Int. J. Qual. Reliab. Manag.	0
6.	Consumer satisfaction and reuse intention of food delivery apps: integration of service quality model and expectation confirmation theory	Ahmad, 2025, J. Qual. Assur. Hosp. Tour.	0
7.	Online Food Delivery App Quality and Its Impact on Preferences and Satisfaction	Kayla, 2025, J. Distrib. Sci.	0
8.	From clicks to doorstep: Exploring service quality and stakeholder challenges in the online food delivery supply chain	Tan, 2025, Search J. Media Commun. Res.	0
9.	A Kano analysis of food delivery apps in Italy: fair riders' pay matters	Dominici, 2025, Br. Food J.	0
10.	Consumer Usage Intention Factors for Mobile Food-Delivery Applications Using Task Technology Fit Approach	Shirolkar, 2025, Commun. Comput. Inf. Sci.	0

Source: Lin, et al. [22]; Bao and Zhu [18]; Daud, et al. [26]; Dsouza, et al. [27]; Hoyos Vallejo and Chinelato [28]; Ahmad, et al. [29]; Kayla [30]; Tan, et al. [31]; Dominici, et al. [32] and Shirolkar and Patil [33].

4.7. Co-Citation Analysis

Collaborative citation analysis is one way to map scientific literature. It is often assumed that two references cited in the same third work are either related or have a comparable structure of material. Co-citation analysis, which "was also undertaken by Jakhar [15]," is used to expose the conceptual framework of a particular field of research. Based on the clusters created, this approach also helps identify the most important publications. Each cluster has a theme and is based on a certain foundation. After grouping documents into clusters, co-citation analysis identifies the publications most related to each subject. This analysis allows researchers to gain additional knowledge about articles according to their interests. Moreover, by examining relevant journals, upcoming researchers can compile literature on specific subjects. When performing the analysis, the VOSViewer application employs a co-citation strategy. For this process, publications with a minimum of five citations in published papers are considered. Only five out of 159 articles meet this criterion. The weights of the linkages were evaluated in Figure 9.

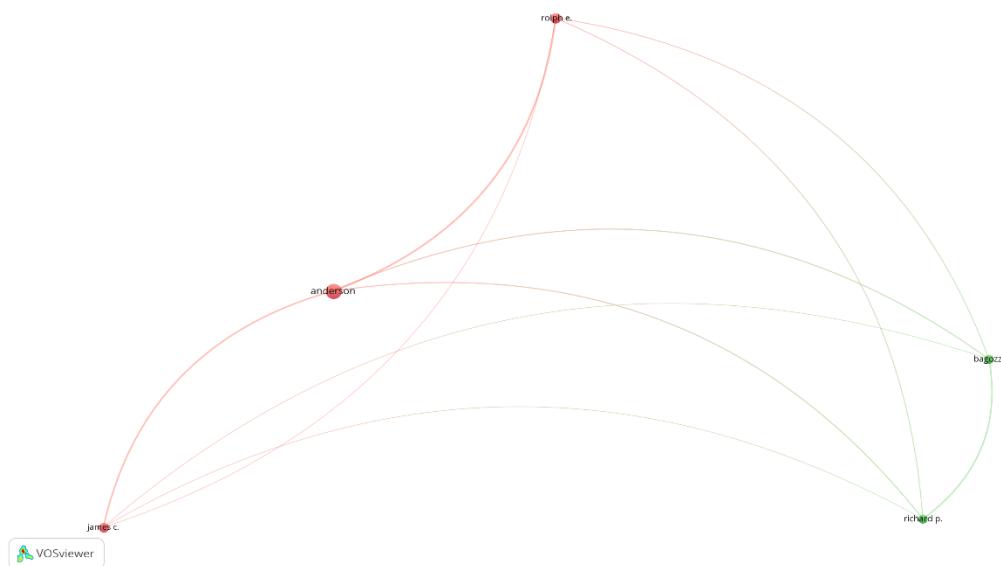


Figure 9.
Presents an author-specific co-citation correlation map.

Two clusters are created in total. Increasing the weight of the links allows you to demonstrate the number of extra publications connected to those in the reference list. A higher number of links indicates that the work is more suitable for study.

Table 5.
Demonstrates the analysis of the co-citation map.

Colour of cluster	Author name	Citation
Red	Anderson	14
Green	Bagozzi	34

This bar chart, titled "Document by author," in Figure 10 shows how many papers written by certain writers have been published. The y-axis represents the number of documents, while the x-axis lists the authors. With slightly more than 30 documents, Lim et al. [34] is the group leader. Pang et al. [35] and Choi et al. [36] are next in line with roughly 25 documents each. Around the 24-document mark, Kim et al. [37] and Jang et al. [38] also display comparable numbers. A little under 22 documents have been published by Lee et al. [39] and about 23 by Lee et al. [40] further down the list. Lastly, with roughly 21 documents apiece, Li et al. [41], Chen et al. [42], and Jia [43] complete the top 10 with reliable

contributions. The graph makes it evident that Lim et al. [34] produced a lot more work than the other writers in this selection, as the number of documents produced by the other authors gradually decreased.

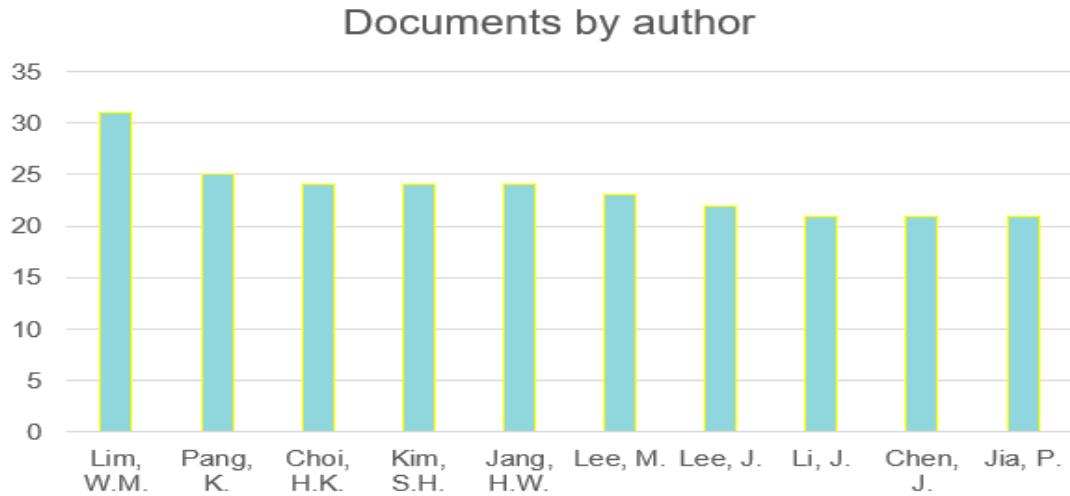


Figure 10.

Shows the highest document from the authors' names.

Source: Lim, et al. [34]; Pang, et al. [35]; Choi, et al. [36]; Kim, et al. [37]; Jang, et al. [38]; Lee, et al. [39]; Lee, et al. [40]; Li, et al. [41]; Chen, et al. [42], and Jia [43].

Table 6 shows the author pairs of collaborations, listing the top 10 author pairs based on the number of collaborations they've had. The table has three columns: No. ranking, Author Pair, and Collaborations, which indicates the number of joint publications. Every pair in the list has exactly one collaboration, meaning no two writers have co-authored more than one document together within the data analysis parameters.

Table 6.

Shows the author pair of the collaborations.

No.	Author Pair	Collaborations
1.	Norhidayah Abdullah and Muhamad Redha Iqbal Bin Daud	1
2.	Norhidayah Abdullah and Lovelynna Benedict Jipiu	1
3.	Muhamad Redha Iqbal Bin Daud and Lovelynna Benedict Jipiu	1
4.	Che Mohd Zulkifli Che Omar and Hasni Abdul Rahim	1
5.	Che Mohd Zulkifli Che Omar and Junaida Ismail	1
6.	Hasni Abdul Rahim and Junaida Ismail	1
7.	Maslin Masrom and Nur Azfahani Abdullah	1
8.	Maslin Masrom and Suaidah Mohsen	1
9.	Nur Azfahani Abdullah and Suaidah Mohsen	1
10.	Abdul Manaf Bohari and Khairul Bariah Ahmad Othman	1

4.8. Co-Occurrence Analysis

Another technique for scientific map-making that makes use of "author keywords" is co-occurrence analysis. The author's chosen research methodology is the primary focus of the study, which is why it includes keywords selected by the author. Co-word analysis, which "was also undertaken by Ling et al. [1]," creates themes or groups based on words that occur together. Only keywords appearing in at least five articles are used for analysis, as these are the ones desired.

Several authors employ keywords to evaluate the state of a research subject, considering only strong terms. The limit is reached at 232 characters. Two groups were formed through co-occurrence analysis, as shown in Figure 11 and Table 7. A keyword's effect increases with the size of the circle. Online food

delivery and Customer satisfaction were mentioned 12 and 11 times, respectively. The keywords "Online food delivery" and "Customer satisfaction" appeared 12 and 11 times, respectively. "Food delivery apps" appeared 9 times, and "Covid-19" appeared 5 times in a cluster (1) of red-highlighted words. The terms "Food delivery" (7) and "Satisfaction" (6) are included in cluster (2) of green.

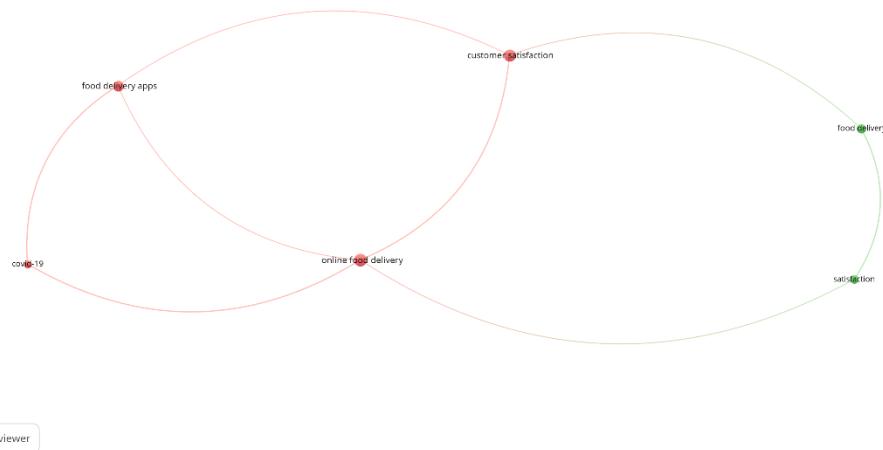


Figure 11.

Shows a map of the co-occurrence of keywords.

Table 7.

Represents diverse terms generated by co-occurrence analysis.

Colour of cluster	Keywords	Link	Total link strength	Times appeared
Red	Online food delivery	4	6	12
	Customer satisfaction	3	4	11
	Food delivery apps	3	4	9
	Covid-19	2	4	5
Green	Food delivery	2	3	7
	Satisfaction	2	3	6

4.8.1. Thematic Analysis

The co-occurrence analysis was used to create thematic clusters, as seen in Figure 12. This was also studied by Ling et al. [1]. Co-occurrence analysis is a science mapping approach focusing on terms to develop clusters of different themes by categorizing keywords that come together regularly. To identify the many recurring themes, each phrase was specifically chosen. The justification for this is that, whether considering the abstract, title, or keywords, the larger context provided by all the keywords is more appropriate. Overall keyword coverage is higher than the author's keyword coverage; phrases featured in publications at least ten times were selected for the thematic analysis. Phrases appearing more frequently in documents were also considered. Although a keyword becomes more significant in a specific area if it appears a minimum of five times in various papers, it needs to be assigned a weight of at least ten times before it appears in papers. Different weights were used in a hit-and-miss fashion; results were clearer when the weight was ten times. To give weight to keyword occurrences, a minimum of 343 words was required. A total of two clusters were formed. Theme 1, represented by the red cluster, focuses on aspects of customer service and outcomes, exemplified by terms like "meal delivery," "customer satisfaction," and "satisfaction." These ideas relate to elements influencing the user experience. Theme 2, represented by

the green cluster, centers on operational and contextual themes, including "online food delivery," "food delivery applications," and the significant external factor "COVID-19." These themes focus on the specific form of delivery and its environment. These are important topics for current research in the sector. A forward-looking, planning-oriented study focus is suggested by the inclusion of forecasting, which aims to manage and develop the current digital market, online apps, to fulfill future demand for online food services and enhance online purchasing overall.

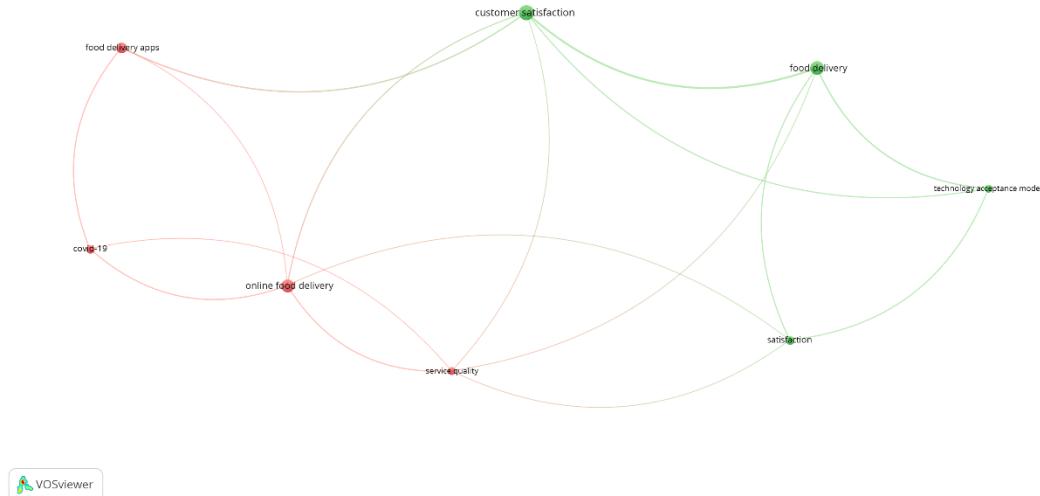


Figure 12.

Presents a map of co-occurrence analysis to generate themes from all keywords.

4.9. Thematic Evolution

To ascertain the trend's trajectory, theorists use thematic development through offering a thorough bibliometric analysis of Satisfaction in using online food delivery app research, which methodically maps the field's intellectual structure, publishing patterns, and thematic evolution. The current study has significant advantages for both academia and practice. Finding reputable sources, identifying research gaps, and forming partnerships with seasoned professionals are all made easier for researchers and practitioners by the identification of powerful nations, significant writers, and high-impact publications. In theme progression, time is divided into sections so that changes across time may be examined. Based on Figure 13, analysis of publication trends and key research topics shows that the thematic evolution of Satisfaction in using online food delivery apps has progressed through distinct phases. Figure 13 illustrates how twelve themes changed over eight years, from 2018 to 2025. The horizontal axis shows the years, and the vertical axis indicates how frequently or prominently these topics occur. The graph's most notable aspect is the distinct and steady upward trend across all themes, suggesting that interest in or volume of research in these areas is increasing. The overall trend indicates that the subjects discussed are becoming more relevant over time. The issue of "e-service quality" is the most prevalent and rapidly expanding area of focus. It starts at a relatively low level in 2018 but experiences a significant and fast increase, surpassing all other themes by 2025. This is represented by the large green region. This implies that the quality of electronic services has replaced other related notions as the most important and active topic in this field of study. The remaining eleven themes, however, show a somewhat more subdued and steadier rise. Topics like "online food delivery application," "food delivery," "customer satisfaction," and "customer loyalty" are at the bottom of the chart. Despite consistent growth, they are still less prominent

than "e-service quality." This pattern suggests that although these ideas are always significant, the quality of the digital service experience itself is the dominant factor driving development and research in this field. Thus, the evolution demonstrates how broad online food delivery app studies have shifted toward highly specialized research on shared mobility, which has led to an emphasis on the systemic integration and effects of these new modes.

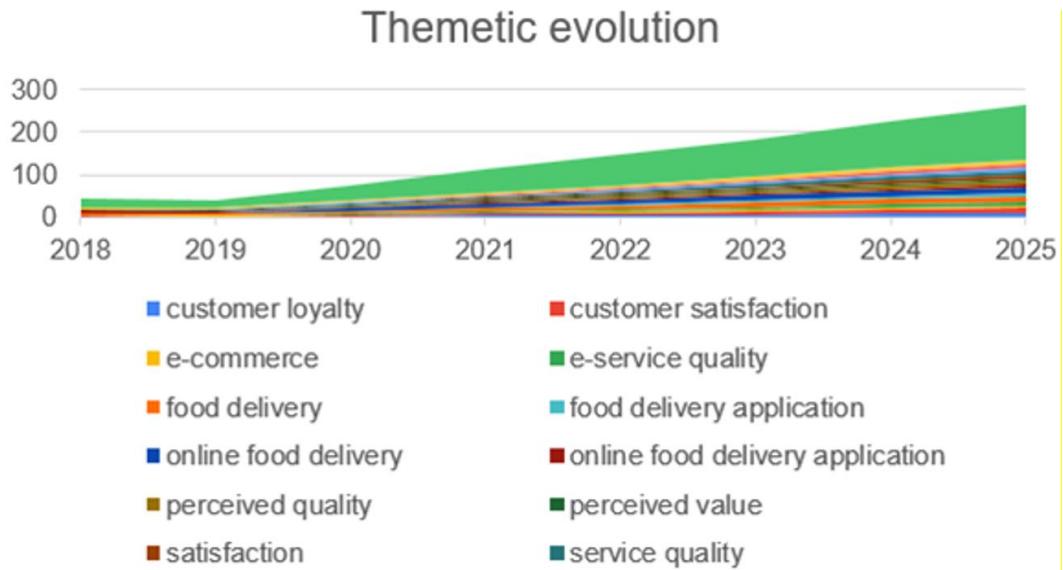


Figure 13.
Showcases thematic evolution.

4.10. Discussion

These numerous bibliometric analyses of satisfaction in using online food delivery apps add to both academic discussion and real-world implementation. Scholarly knowledge of the topic is greatly improved by the study's compilation and mapping of earlier studies. By highlighting important areas and resources, the study provides researchers with a crucial framework. The examination of yearly scientific output shows that research on satisfaction in using online food delivery apps is expanding, but the relatively small number of studies conducted each year suggests that further research is necessary. This study's thorough and systematic mapping of the research environment for "satisfaction in utilizing online meal delivery applications" is one of its main advantages. Finding credible sources, well-known authors, and high-impact publications facilitates the process of discovering research gaps and establishing professional collaborations. By identifying the most promising journals using Bradford's law, the approach enables researchers to quickly locate and select relevant works that will complement their upcoming studies. Additionally, by highlighting the most pertinent authors, the study aids readers in understanding their work and indicates potential topics for further research. The study effectively reveals the conceptual framework and thematic development of the field. The field's intellectual structure is demonstrated through co-citation analysis, which groups similar texts to assist future researchers in compiling literature on specific subjects. Furthermore, key research clusters and topics, including "customer satisfaction," "service quality," and the effects of "COVID-19," are identified through co-occurrence and thematic analysis. The subject evolution study demonstrates the rapid rise in importance of "e-service quality" relative to other topics and shows how research trends have developed over time. This provides a clear picture of the current directions and areas of interest within the field.

5. Conclusion

In conclusion, since improving the quality of websites and apps is the most important aspect for consumer happiness, e-food firms must give it top priority if they want to succeed. Businesses must comprehend changing study issues, such as the growing importance of e-service quality, in order to adjust and satisfy future customer demands in the competitive online meal delivery industry. A limitation of this investigation is that it only examined articles contained in the Scopus database; therefore, the results cannot be generalized to other contexts. Consequently, future research could benefit from using more comprehensive databases like Google Scholar or the Web of Science. This limitation restricts the diversity of viewpoints and may cause important contributions to the area of satisfaction with online meal delivery apps that aren't included in Scopus to go unnoticed. Therefore, future research may expand bibliometric mapping by including several databases, which would allow for better cross-validation of findings, broader cross-disciplinary applicability, and more thorough coverage. This research primarily focused on quantitative bibliometric characteristics such as topic advancement, co-occurrence, co-citation, and publication patterns. Although these methodologies provide valuable information about structural patterns, they do not capture the deeper qualitative aspects of consumer experiences or management strategies. Future research may benefit from a mixed-method approach, including more language analysis, bibliometric mapping, content analysis, and systematic literature reviews to provide more comprehensive theoretical and practical insights. Customers have always viewed online food app services with suspicion. The main concerns are website quality, service quality, price, and convenience. Additionally, "Satisfaction in utilizing online meal delivery app" was used as the primary search term to collect articles. A different set of 63 publications might have been obtained by using other or additional keywords, which could have altered the analysis's conclusions. To win over customers, online food app firms must address pervasive price and security concerns. Therefore, future research should extend the bibliometric horizon by incorporating foresight analysis, trend forecasting, and scenario planning to anticipate emerging research avenues and practical challenges in the satisfaction ecosystem of online food delivery apps.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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