



Uncovering future research agendas in mobile food ordering apps: A bibliometric study

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Abstract

This study explores the scholarly output and advancements in the field of mobile food ordering applications by using bibliometric review methodology. Through the utilization of the Scopus database, 515 pertinent publications were identified up to 31st Dec 2025, using keywords associated with perceptions, satisfaction, continued intention, and reuse intention regarding food delivery applications. The analysis reveals a significant surge in academic interest post-2016, with the USA, the UK, China, and India leading research efforts in this domain. The results underscore the significance of collaborative authorship in this burgeoning field. The British Food Journal and the Cambridge Archaeological Journal emerged as the most prolific, and Ali Abdallah Alalwan was identified as the most influential author. Despite limitations such as reliance on a single database and specific exclusion criteria, the study underscores the need for future research on the impact of mobile food ordering applications on customer satisfaction, incorporating diverse sources and bibliometric measures.

Keywords: Mobile food ordering apps, bibliometric analysis, consumer satisfaction, perception, jel classification- M30, M31, M37

Introduction

The term "Mobile Food Ordering Apps (MFOAs)" refers to the use of internet platforms for purchasing and delivering freshly prepared meals from restaurants to consumers' homes. These applications have rapidly expanded worldwide in recent years. This innovative and disruptive business is important due to its unique characteristics and the growth of the connected industry. It involves an ecosystem including restaurants, delivery personnel, consumers, and the platform, drawing the interest of academics, policymakers, and practitioners. The MFOAs market is highly attractive to new, tech-savvy businesses in the food and grocery industries while also posing a challenge to established players in the traditional non-delivery food, grocery, and hospitality sectors (Na Nongkhai *et al.*, 2023) ^[1]. What used to be dominated by startups and a small niche is now flourishing under the control of major companies, significantly influencing consumer dining behavior (Schluter, 2024; Wang & Somogyi, 2018) ^[15, 17]. There is increasing acknowledgment of the significance of this industry worldwide, as evidenced by consistent growth rates in the US, Europe, and Asia (Furunes & Mkono, 2019) ^[6]. Ready-to-eat meals that are delivered promptly are becoming a popular alternative to buying and preparing food (Hirekenchanagoudar, 2008; Patel & Rathod, 2017) ^[8, 14]. As a result, MFOAs companies are now seen as competitors to traditional offline-only restaurants and grocery stores. This is because customers might choose to order food online instead of dining out (Zhang *et al.*, 2019) ^[19]. According to academic discourse, the characteristics of MFOAs make it a compelling topic for research across various domains and disciplines. Firstly, due to its inherent complexities such as highly dynamic demand characteristics, strict time constraints, small order dimensions, and highly perishable products, the related pickup and delivery problem is of great interest to academics in the logistics and operations research domains (Allen *et al.*, 2018) ^[3]. Secondly, from the standpoint of

microeconomics, strategy, and finance, it is highly intriguing. The MFOAs sector has experienced significant consolidation due to several large mergers and acquisitions that have taken place globally in recent years.

This study's main contribution is that it uses the bibliometric approach to identify the most recent and prestigious research in this field and to offer a thorough overview. The results of this study will help the researchers comprehend the topic's intellectual structure and publishing pattern. Moreover, it offers informative perspectives on the MFOAs, and the current research field trend to policymakers, practitioners, scholars, and aspiring researchers. Additionally, this work offers guidance to upcoming investigators in this area.

This research paper delves into a comprehensive exploration of the evolving landscape of mobile food ordering apps, aiming to uncover emerging trends and gaps in the existing body of knowledge. The study aims to conduct an in-depth review of relevant literature using Biblioshiny software (R studio) and VoSviewer with publications sourced from the Scopus database. Initial findings reveal a significant upsurge in scholarly interest, particularly post-2016. The analysis suggests that a considerable number of publications originate from developed Western countries and indicates that the research area is relatively new, thus presenting an opportunity for increased collaboration among authors.

Rationale for the study

The research is focused on the rapid development of technology and its impact on the food delivery industry. Online ordering and delivery applications have become essential in people's daily lives. To stay competitive and adapt to market changes, food delivery services need to understand consumer preferences and app strategies. The report aims to identify research gaps and provide a future research agenda by evaluating existing literature and conducting bibliometric analysis. In summary, the goal is to comprehensively analyze the current state of mobile food

ordering applications and their influence on the food sector and highlight areas for further investigation to drive ongoing advancements and changes in the field.

Objective of the study

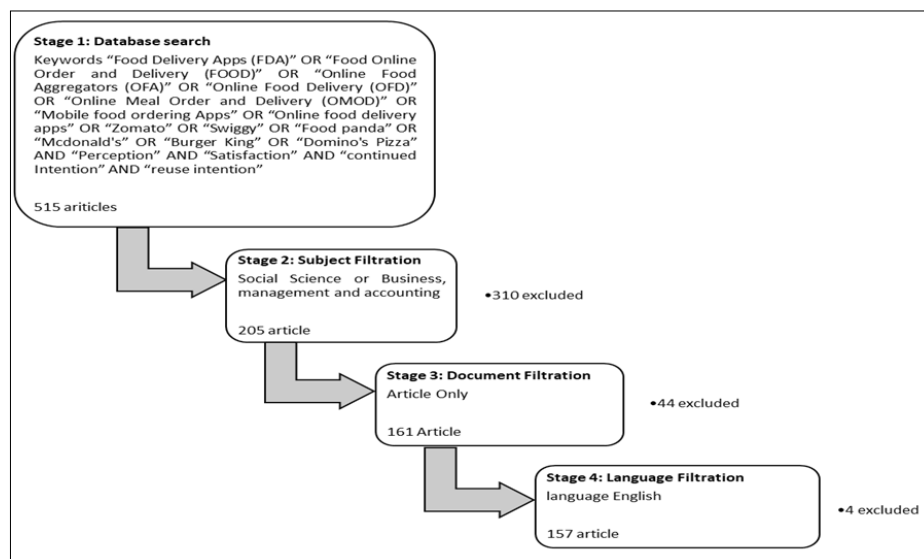
Here are the key objectives for our research on mobile food ordering apps:

1. To analyze the publication trend related to mobile food ordering apps
2. To identify the most referenced work and the scientific output of different countries in the literature on mobile food ordering apps
3. To evaluate the most relevant sources, affiliations, and networks of keyword co-occurrence in the literature about mobile food ordering apps
4. To examine word clouds, word maps, and tree maps, as well as the most globally cited literature in the field of mobile food ordering apps
5. To assess the latest and emerging themes in research on mobile food ordering apps

Research Methodology and Data

In this paper, the bibliometric review approach is utilized, representing a form of systematic literature review (SLR) for analysis. Bibliometrics has become increasingly fundamental in evaluating and analyzing scientific output, university collaborations (Farooq, 2024) [5], and in disseminating research findings through the identification of key terms (Kassier, 2024) [18]. Moreover, by employing statistical methods to analyze both qualitative and

quantitative changes within a specific scientific research area, bibliometric analysis creates a visualization of publications related to the subject and identifies significant advancements within the field. We often rely on the Scopus database to locate scientific publications, as it is widely acknowledged as the most extensive and significant multidisciplinary bibliometric database (Yıldız, 2024) [18]. However, it is important to acknowledge a significant limitation of our study, as we relied solely on the Scopus database and did not consider other scholarly databases. In the first stage, we searched the keyword “Food Delivery Apps (FDA)” OR “Food Online Order and Delivery (FOOD)” OR “Online Food Aggregators (OFA)” OR “Online Food Delivery (OFD)” OR “Online Meal Order and Delivery (OMOD)” OR “Mobile food ordering Apps” OR “Online food delivery apps” OR “Zomato” OR “Swiggy” OR “Food panda” OR “Mcdonald's” OR “Burger King” OR “Domino's Pizza” AND “Perception” AND “Satisfaction” AND “continued Intention” AND “reuse intention” in the search query, limiting the search to “titles, abstracts, and/or keywords”. Following the search, the Scopus database returned 515 results (refer to Figure 1). The study encompassed all papers published up to May 10, 2024 [18]. Subsequently, we conducted further research and established specific inclusion criteria to ensure the exclusion of irrelevant data. These criteria included: (i) filtering by the subject as "Social Science or Business, management, and accounting," (ii) selecting only "Article" as the document type, and (iii) specifying "English" as the language (see Figure 1).



Source: Compiled by authors

Fig 1: Document search and Filtration

Result and Discussion

1. Most Relevant Sources

The given table 1 enumerates many scholarly periodicals together with the number of articles linked to each one. There are seven articles in each of the Cambridge Archaeological Journal and the British Food Journal. The Swiss journal Sustainability has five articles that come after these. There are three papers in each of the journals, International Journal of Quality and Reliability Management

and Journal of Retailing and Consumer Services. The European Journal of Tourism Research, the International Journal of Contemporary Hospitality Management, Internet Research, the Journal of Business Strategy, and the Journal of Hospitality and Tourism Technology are just a few of the journals that have contributed two papers each. The papers' distribution across different publications demonstrates the variety and breadth of sources utilized in the study, pointing to a multidisciplinary methodology.

Table 1: Most Relevant Sources

Sources	Articles
BRITISH FOOD JOURNAL	7
CAMBRIDGE ARCHAEOLOGICAL JOURNAL	7
SUSTAINABILITY (SWITZERLAND)	5
INTERNATIONAL JOURNAL OF QUALITY AND RELIABILITY MANAGEMENT	3
JOURNAL OF RETAILING AND CONSUMER SERVICES	3
EUROPEAN JOURNAL OF TOURISM RESEARCH	2
INTERNATIONAL JOURNAL OF CONTEMPORARY HOSPITALITY MANAGEMENT	2
INTERNET RESEARCH	2
JOURNAL OF BUSINESS STRATEGY	2
JOURNAL OF HOSPITALITY AND TOURISM TECHNOLOGY	2

Source: Compiled by authors

2. Country Scientific Production

The table 2 shows the scientific production by country, measured by the frequency of contributions. The United States leads with 71 contributions, demonstrating its significant role in scientific research. The United Kingdom follows with 39 contributions, while China has 32 and India has 28, indicating their growing influence in the scientific community. Brazil contributes 23, and Spain follows closely

with 21. Turkey has 19 contributions, and Iran has 17, showcasing their active participation in research. Australia and Indonesia have 12 and 11 contributions, respectively, highlighting their involvement in scientific production. This distribution underscores the global nature of scientific research, with substantial contributions from both Western and non-Western countries.

Table 2: Country Scientific Production

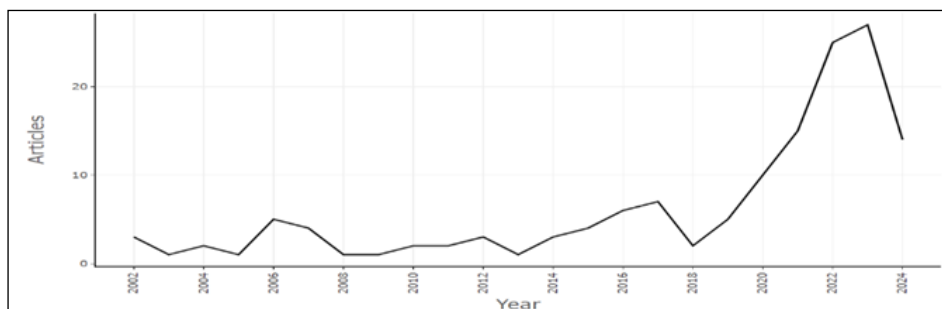
Country	Freq
USA	71
UK	39
CHINA	32
INDIA	28
BRAZIL	23
SPAIN	21
TURKEY	19
IRAN	17
AUSTRALIA	12
INDONESIA	11

Source: Compiled by authors

3. Annual Scientific Production

The figure 2 shows the annual number of published articles from 2002 to 2024 [18]. There was a relatively low and stable number of articles from 2002 to 2015, with slight fluctuations. However, starting in 2016, there was a

noticeable increase, and a more significant rise began in 2020. The peak was in 2023 [11], with the number of articles surpassing 20. This trend demonstrates a steady growth in publication activity over the years, with a sharp increase in recent years.



Source: Compiled by authors

Fig 2: Annual Scientific Production

4. Affiliation analysis

The table 3 and figure 3 show the number of academic articles contributed by different universities. Deakin University leads with 7 articles, followed by Nanyang Technological University with 6. Several institutions, including Bangabandhu Sheikh Mujibur Rahman Science and Technology University, Federal University of Paraiba, Tehran University of Medical Sciences, Tufts University, Universidad Autónoma de Sinaloa, and University Medical

Center Hamburg-Eppendorf, each contributed 5 articles. Amsterdam University Medical Centers and the Federal University of Juiz de Fora contributed 4 articles each. The graph visually represents this data, with each university listed on the vertical axis and the number of articles on the horizontal axis. The size of the circles and the length of the bars correspond to the number of articles, highlighting Deakin University as the top contributor with the largest circle and bar, followed by Nanyang Technological

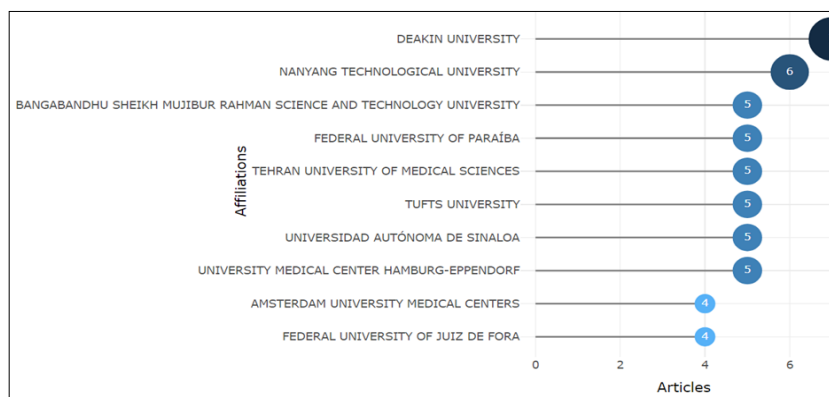
University. The subsequent universities have progressively smaller circles and bars, indicating their respective contributions. Together, the table and graph provide a clear

and concise visualization of the contributions from different academic institutions, emphasizing the significant research output from these leading universities.

Table 3: Affiliation analysis

Affiliation	Articles
DEAKIN UNIVERSITY	7
NANYANG TECHNOLOGICAL UNIVERSITY	6
BANGABANDHU SHEIKH MUJIBUR RAHMAN SCIENCE AND TECHNOLOGY UNIVERSITY	5
FEDERAL UNIVERSITY OF PARAÍBA	5
TEHRAN UNIVERSITY OF MEDICAL SCIENCES	5
TUFTS UNIVERSITY	5
UNIVERSIDAD AUTÓNOMA DE SINALOA	5
UNIVERSITY MEDICAL CENTER HAMBURG-EPPENDORF	5
AMSTERDAM UNIVERSITY MEDICAL CENTERS	4
FEDERAL UNIVERSITY OF JUIZ DE FORA	4

Source: Compiled by authors



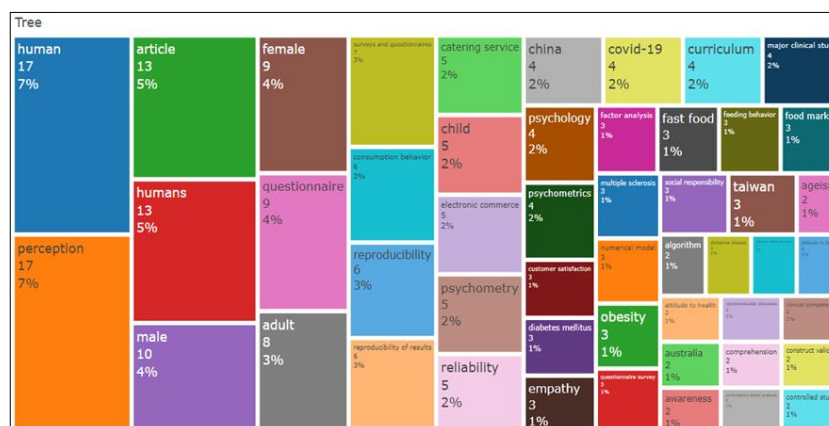
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Fig 3: Affiliation analysis

5. TreeMap

The treemap (figure 4) displays different terms and their frequencies, showing how often they appear in the dataset. Each rectangle represents a term, with the size of the rectangle corresponding to the frequency of that term. The term "human" appears most frequently, with a total of 17 occurrences, making up 7% of the dataset. Following closely are "perception" and "article," each appearing 17 and 13 times, respectively, both making up 7% and 5% of the dataset. Other commonly occurring terms include "female" and "questionnaire," each with 9 occurrences (4%), and "male" with 10 occurrences (4%). Several other terms appear with a frequency of 6 occurrences (3%) each, such as "surveys and questionnaires," "consumption behavior," "reproducibility," "psychometrics," "psychometry," "adult," "reliability," "obesity," "Australia," "comprehension," "controlled study," and more. The treemap effectively illustrates the distribution and prevalence of various terms within the dataset, providing a visual summary of key themes and topics.

"catering service," "child," "electronic commerce," and "psychometrics" appear 5 times each, making up 2% of the dataset. A variety of other terms appear less frequently, with occurrences ranging from 3 to 1, covering a wide array of topics such as "China," "COVID-19," "curriculum," "psychology," "factor analysis," "fast food," "feeding behavior," "food market," "multiple sclerosis," "social responsibility," "Taiwan," "ageism," "numerical model," "algorithm," "customer satisfaction," "diabetes mellitus," "obesity," "empathy," "reliability," "Australia," "comprehension," "controlled study," and more. The treemap effectively illustrates the distribution and prevalence of various terms within the dataset, providing a visual summary of key themes and topics.



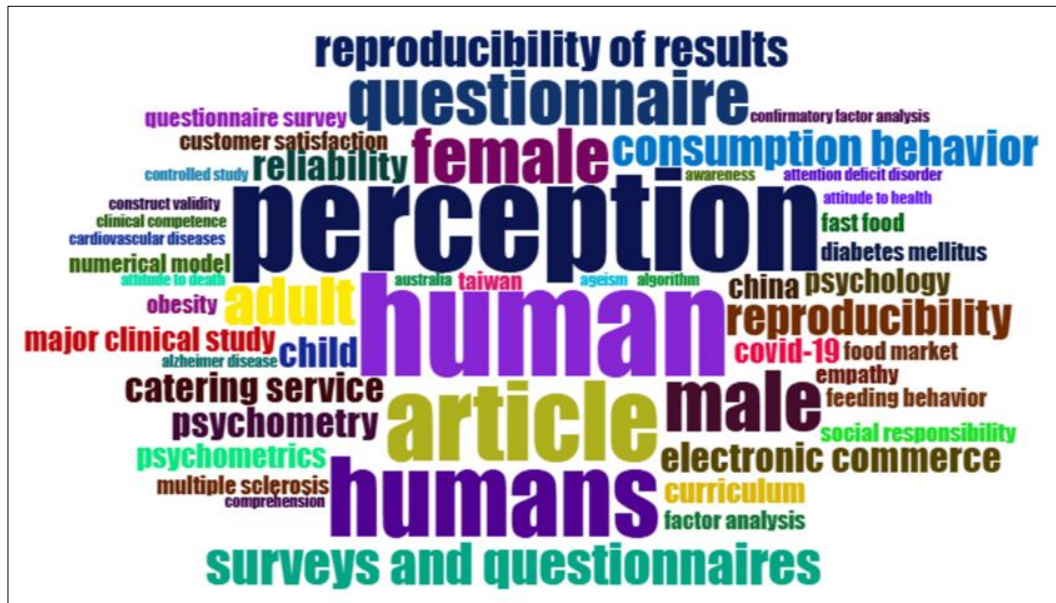
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Fig 4: TreeMap

6. Word Cloud

The word cloud (figure 5) shows how often different words appear in a dataset. The most common terms, like "human" and "perception," each appear 17 times, making up 7% of the dataset. Other frequently occurring words include "article" and "humans" (13 times, 5%), and "female" and "questionnaire" (9 times, 4%). Less common but still

important terms, appearing 5 to 6 times, include "catering service," "child," "electronic commerce," and "psychometrics" (2-3%). There are also various other terms like "China," "COVID-19," "psychology," "fast food," and "social responsibility," each appearing 1 to 4 times, showing the wide range of topics covered in the dataset.



Source: Compiled by authors

Fig 5: Word Cloud

7. Most Global Cited Documents

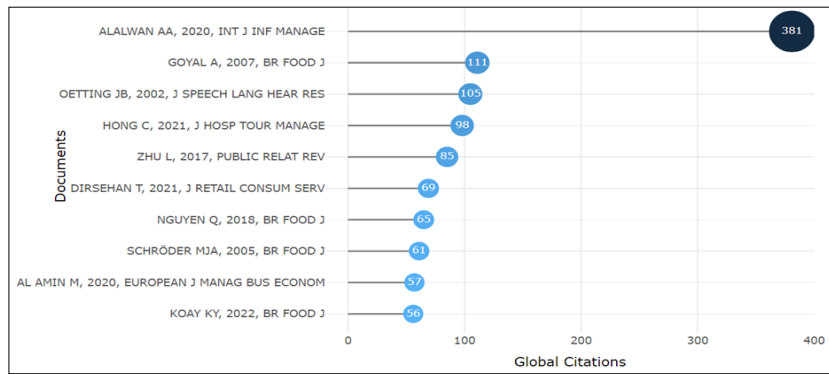
The list of most globally cited documents provides insight into diverse fields of research. Among the highly cited papers is Alalwan *et al.*'s 2020 [2] study published in the International Journal of Information Management, which has garnered 381 citations, indicating its significant impact in the field of information management. Goyal's 2007 [7] paper in the British Food Journal follows with 111 citations, focusing on food-related research. Oetting *et al.*'s work from 2002 [13], published in the Journal of Speech, Language, and Hearing Research, has received 105 citations, highlighting its influence in speech and language studies. Hong *et al.*'s recent contribution to the Journal of Hospitality and Tourism Management in 2021 [1], with 98 citations, underscores its relevance in tourism research. Zhu *et al.*'s

paper in the Public Relations Review from 2017 [20] has accumulated 85 citations, emphasizing its impact on public relations studies. Dirsehan *et al.*'s 2021 [4] research in the Journal of Retailing and Consumer Services has 69 citations, indicating its significance in retail and consumer behavior. Nguyen *et al.*'s 2018 [12] article in the British Food Journal has 65 citations, contributing to food science literature. Schröder's 2005 [16] study in the British Food Journal has 61 citations, focusing on food-related research. Finally, Al Amin's 2020 paper in the European Journal of Management and Business Economics has 57 citations, highlighting its impact in management and economics research. These papers collectively represent a range of disciplines and underscore their respective contributions to advancing knowledge in their fields.

Table 4: Most Global Cited Documents

Paper	DOI	Total Citations
(Alalwan, 2020) [2]	10.1016/j.ijinfomgt.2019.04.008	381
(Goyal & Singh, 2007) [7]	10.1108/00070700710725536	111
(Oetting & McDonald, 2002) [13]	10.1044/1092-4388(2002/040)	105
(Hong <i>et al.</i> , 2021) [9]	10.1016/j.jhtm.2021.08.012	98
(Zhu <i>et al.</i> , 2017) [20]	10.1016/j.pubrev.2017.03.006	85
(Dirsehan & Cankat, 2021) [4]	10.1016/j.jretconser.2021.102608	69
(Nguyen <i>et al.</i> , 2018) [12]	10.1108/BFJ-08-2017-0449	65
(Schröder & McEachern, 2005) [16]	10.1108/00070700510589503	61
(Al Amin <i>et al.</i> , 2021) [1]	10.1108/EJMBE-04-2020-0066	57
(Kassier, 2024)	10.1108/BFJ-10-2021-1169	56

Source: Compiled by authors



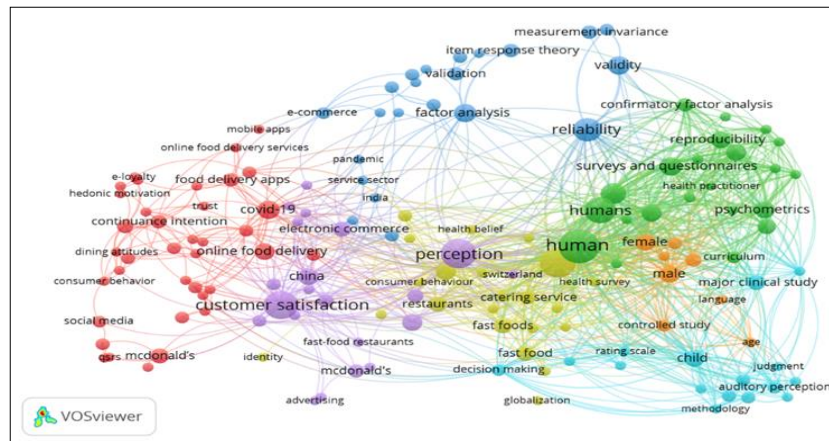
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Fig 6: Most Global Cited Documents

8. Keyword Co-occurrence Network

The keyword co-occurrence network (figure 7) is a visual representation used to analyze relationships between individuals, organizations, or concepts. An automatic layout selection and similarity index were utilized to analyze the author's keywords within the available literature. The visualization of the network reveals six interconnected clusters of keywords. These clusters are categorized as

follows: Cluster 1 - Perception and Customer Satisfaction (Violet color), Cluster 2 - Online food delivery and COVID-19 (Red color), Cluster 3 - Reliability and Factor Analysis (Blue color), Cluster 4 - Fast Food and Consumer Behavior (Yellow color), Cluster 5 - Methodology and Decision Making (Skyblue color) and Cluster 6 - Humans and Survey (Green color).



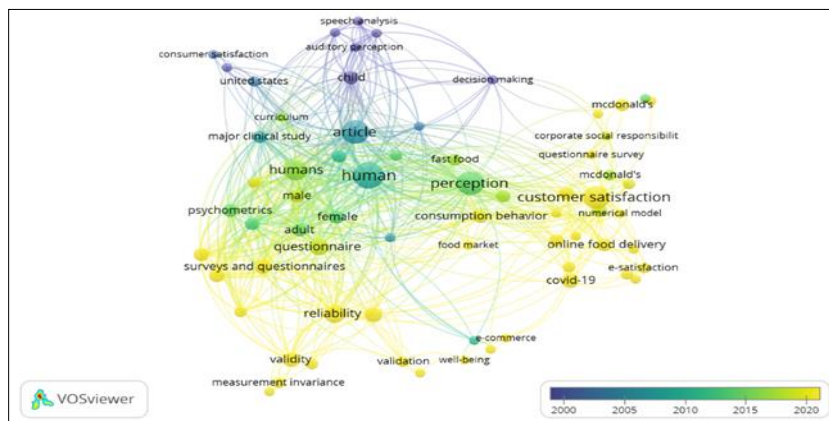
Source: Compiled by authors

Fig 7: Keyword Co-occurrence Network

9. Keyword Relevance Network

The keyword relevance network for the corpus of available literature is shown in Figure. The size of the circle corresponds to the relative frequency of keyword occurrence in the corpus, while the color of the keywords indicates the

timeline at which they were employed. The most recent and emerging themes in this study are represented by keywords that are yellow i.e. customer satisfaction and online food delivery.



Source: Compiled by authors

Fig 8: Keyword Relevance Network

Conclusion

The survey revealed a significant increase in academic interest, particularly after 2016. This suggests that the field of study is gaining more recognition. According to the analysis, the top four nations in this field are the USA, the UK, China, and India. The findings indicate that collaboration among authors is crucial due to the relative youth of the area of study. Our results also showed that the British Food Journal and the Cambridge Archaeological Journal are the most prolific journals, with 07 articles. Additionally, the most productive journals are from the Emerald Publishing House. Ali Abdallah Alalwan is the most influential author, with 381 citations.

Our research has limitations that need to be acknowledged. Our analysis only took into account the Scopus database, and it's important to recognize that there are numerous article databases that are not encompassed in Scopus. Furthermore, we implemented specific exclusion criteria. Hence, to advance the exploration of this constantly developing area, employing diverse sources like correspondence, chapters in books, papers from conferences, materials in languages other than English, and a range of bibliometric measures could offer supplementary benefits. Analysis of the Keyword Relevance Network underscores the importance of future research on emerging themes, notably, the impact of mobile food ordering apps on customer satisfaction.

References

- Al Amin Md, Arefin Md S, Sultana N, Islam Md R, Jahan I, Akhtar A. Evaluating the customers' dining attitudes, e-satisfaction and continuance intention toward mobile food ordering apps (MFOAs): Evidence from Bangladesh. *European Journal of Management and Business Economics*,2021:30(2):211–229. <https://doi.org/10.1108/EJMBE-04-2020-0066>
- Alalwan AA. Mobile food ordering apps: An empirical study of the factors affecting customer e-satisfaction and continued intention to reuse. *International Journal of Information Management*,2020:50:28–44. <https://doi.org/10.1016/j.ijinfomgt.2019.04.008>
- Allen J, Piecyk M, Piotrowska M, McLeod F, Cherrett T, Ghali K, *et al.* Understanding the impact of e-commerce on last-mile light goods vehicle activity in urban areas: The case of London. *Transportation Research Part D: Transport and Environment*,2018:61:325–338.
- Dirsehan T, Cankat E. Role of mobile food-ordering applications in developing restaurants' brand satisfaction and loyalty in the pandemic period. *Journal of Retailing and Consumer Services*,2021:62:102608. <https://doi.org/10.1016/j.jretconser.2021.102608>
- Farooq R. A review of knowledge management research in the past three decades: A bibliometric analysis. *VINE Journal of Information and Knowledge Management Systems*,2024:54(2):339–378.
- Furunes T, Mkono M. Service-delivery success and failure under the sharing economy. *International Journal of Contemporary Hospitality Management*,2019:31(8):3352–3370.
- Goyal A, Singh NP. Consumer perception about fast food in India: An exploratory study. *British Food Journal*,2007:109(2):182–195. <https://doi.org/10.1108/00070700710725536>
- Hirekenchanagoudar R. Consumer behaviour towards ready-to-eat food products. Unpublished Thesis, University of Agriculture Sciences, Dharward (Institute) AC, 2008. <https://vbook.pub/documents/consumer-behaviour-towards-ready-to-eatfood-products-er2r9j1qm526>
- Hong C, Choi H (Hailey), Choi E-K (Cindy), Joung H-W (David). Factors affecting customer intention to use online food delivery services before and during the COVID-19 pandemic. *Journal of Hospitality and Tourism Management*,2021:48:509–518. <https://doi.org/10.1016/j.jhtm.2021.08.012>
- Kassier L. Identifying transitions in corporate sustainability reporting: A content analysis of JSE/FTSE multinational sustainability reports from 2016 to 2021. *International Journal of Corporate Social Responsibility*,2024:9(1):12. <https://doi.org/10.1186/s40991-024-00099-7>
- Na Nongkhai J, Suttikun C, Mahasuweerachai P. Why Young Consumers Engage with Mobile Self-Ordering Applications (MFOAs) at Restaurants During COVID-19: The Role of Functional and Psychological Factors. *Journal of International Food Agribusiness Marketing*, 2023, 1–25. <https://doi.org/10.1080/08974438.2023.2255573>
- Nguyen Q, Nisar TM, Knox D, Prabhakar GP. Understanding customer satisfaction in the UK quick service restaurant industry: The influence of the tangible attributes of perceived service quality. *British Food Journal*,2018:120(6):1207–1222. <https://doi.org/10.1108/BFJ-08-2017-0449>
- Oetting JB, McDonald JL. Methods for Characterizing Participants' Nonmainstream Dialect Use in Child Language Research. *Journal of Speech, Language, and Hearing Research*,2002:45(3):505–518. [https://doi.org/10.1044/1092-4388\(2002/040\)](https://doi.org/10.1044/1092-4388(2002/040))
- Patel D, Rathod R. Ready to eat food perception, food preferences and food choice: A theoretical discussion. *Worldwide Journal of Multidisciplinary Research and Development*,2017:3(8):198–205.
- Schluter M. Navigating digital ecosystems: Strategies for small businesses facing Big Tech dominance [B.S. thesis, University of Twente], 2024. <http://essay.utwente.nl/100195/>
- Schröder MJA, McEachern MG. Fast foods and ethical consumer value: A focus on McDonald's and KFC. *British Food Journal*,2005:107(4):212–224. <https://doi.org/10.1108/00070700510589503>
- Wang O, Somogyi S. Consumer adoption of online food shopping in China. *British Food Journal*,2018:120(12):2868–2884.
- Yıldız İ. The Importance of Information Systems and Artificial Intelligence Research in Biomedical, Analysis of All Publications in the Scopus Database with R Software. *Aurum Journal of Health Sciences*,2024:6(1):33–48.
- Zhang S, Pauwels K, Peng C. The Impact of Adding Online-to-Offline Service Platform Channels on Firms' Offline and Total Sales and Profits. *Journal of Interactive Marketing*,2019:47:115–128. <https://doi.org/10.1016/j.intmar.2019.03.001>
- Zhu L, Anagondahalli D, Zhang A. Social media and culture in crisis communication: McDonald's and KFC crises management in China. *Public Relations Review*,2017:43(3):487–492. <https://doi.org/10.1016/j.pubrev.2017.03.006>