



# Deep Dive into Food Truck Research: An Overview of Bibliometric Analysis and Scoping Review Evidence

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## ABSTRACT

Food truck industry has emerged as a dynamic and rapidly expanding segment of the food service market, characterized by its blend of tradition and innovation. This review article conducts a comprehensive bibliometric analysis and scoping review of food truck research from 2014 to 2023, highlighting key themes, trends, and gaps in the literature. The analysis reveals a significant increase in scholarly interest, peaking in 2019, followed by a decline attributed to external factors such as the COVID-19 pandemic. Predominantly, research is concentrated in the United States, with notable contributions from Brazil and Malaysia, while developing nations remain underrepresented. Key themes identified include entrepreneurial motivations, regulatory challenges, consumer behavior, food safety, and urban planning. Despite the growing body of literature, substantial gaps persist, particularly in long-term sustainability studies, the impact of technology on operations, and gender dynamics within food truck entrepreneurship. This study not only maps the current landscape of food truck research but also underscores the necessity for future investigations to address these gaps, thereby enriching the understanding of this evolving industry. By employing bibliometric and scoping methodologies, this work provides a foundational framework for subsequent research endeavors in the field of food trucks.

**Keywords:** Food Trucks, Bibliometric Analysis, Scoping Review, Consumer Behavior, Food Safety, Entrepreneurship, Urban Planning

**JEL Classifications:** L66, M13, L26

## 1. INTRODUCTION

The food truck industry has arisen as a vibrant and quickly expanding sector of the food service market, providing company owners with an adaptable and affordable means of entering the food industry. A developing trend in the food industry, food trucks blend tradition and creativity (Alfiero et al., 2017). These mobile eateries provide customers with both hedonic and utilitarian value, with entertainment, a wide selection of products, and quick turnaround times influencing consumer choices (Firmansyah et al., 2022; Anandharaman and Rangasamy, 2023). The food truck sector has historical roots in street food selling but has evolved greatly, Regulations governing food trucks differ between places,

with some cities lacking appropriate standards to enable industry growth (Sobaihi, 2020).

Food truck businesses who have a website, a Facebook page, and modest Twitter engagement tend to last longer, social media is vital to their success (Loots et al., 2024). Given that Gourmet Food Trucks are often more efficient than Traditional Food Trucks, innovation is crucial to obtaining a competitive edge (Alfiero et al., 2017). The larger category of street food, which has been examined in terms of food safety and cultural importance, frequently includes food trucks (Bellia et al., 2022). The extant body of literature primarily concentrates on street food as a whole, rather than focusing specifically on food trucks, which restricts

the potential applications of bibliometric analysis. Research on food trucks is currently divided into two categories: first, it covers the business of food trucks and includes operational issues, public policy concerns, and mobile kitchen health and safety codes and standards (Kraus et al., 2022). Second, it focuses on identifying the factors that influence food truck customer patronage. Existing research on food trucks and entrepreneurship, reviews have been undertaken in specialized entrepreneurship domains such as agriculture, sustainable, family-owned, sports, and ethnic entrepreneurship (Dias et al., 2018; Cardella et al., 2021; Sánchez-García et al., 2018; Thananusak, 2019; Cardella et al., 2020; Kumar and Dubey, 2021).

Furthermore, the extensive review was not restricted to any certain industry or category based on the data from these databases' resources. No research has been clearly done on the trends and forecasting of the food truck business. This work stands apart from all previous research in this field and will be beneficial to future researchers in a variety of ways. Bibliometric analysis is essential for determining major research themes in a given field and evaluating a subject's progress (Maani and Rajkumar, 2023). Aspects of food-related research have been examined in recent bibliometric analyses (Martín-Navarro et al., 2022), but none of them particularly touch on food trucks (Aykaç and Buyruk, 2021; Martín-Navarro et al., 2022). Research has looked at food tourism (Anubha et al., 2023), open innovation in the food value chain (Mention and Misra, 2021), street food, and entrepreneurship in the food industry.

These findings show that there is a growing body of study on food-related subjects, with particular attention being paid to tourism experiences, regional cuisine, sustainability, and innovation. It has been possible to detect trends, well-known writers, organizations, and nations that have contributed to these subjects by using bibliometric methodologies. Although these studies offer insightful information in a number of food-related research fields, they draw attention to a gap in the body of literature that focuses on food trucks from a bibliometric standpoint. This absence raises the possibility of employing bibliometric analytic approaches in future studies to investigate the food truck phenomena.

## 2. SOURCES AND METHODS

### 2.1. Bibliometrics Methodology

Figure 1 below presents the inclusion and exclusion criteria applied in the selection of studies for this review. The initial search in the Scopus database using the keywords "food" and "trucks" yielded 1,335 results. After refining the search to focus on studies published between 2014 and 2023 and filtering results using the specific keywords "food truck" and "food trucks," the dataset was narrowed down to 58 studies. These studies were further scrutinized based on the relevance of their titles and abstracts. Ultimately, only those studies directly aligned with the research focus were selected for detailed review, resulting in a final set of 58 studies.

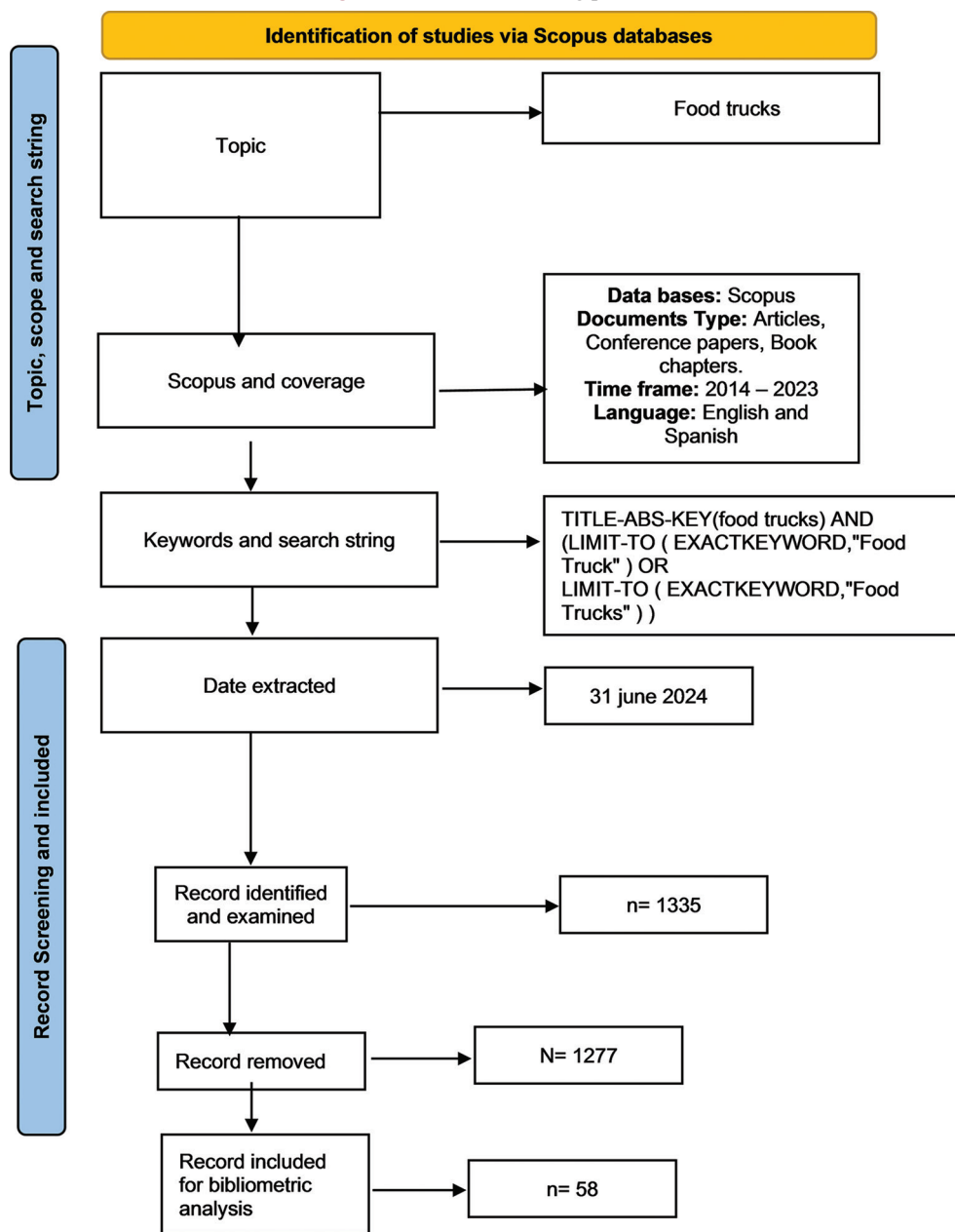
Flexibility of bibliometric analysis using methods including keyword clustering, citation analysis, and publication trend

analysis across a variety of topics (Abdullah, 2021). Data visualization using VOSviewer was consistent, exposing trends and study clusters (Kuzior and Sira, 2022). Furthermore, certain researchers employed R software packages like as Biblioshiny for supplementary analysis. These bibliometric evaluations offer thorough summaries of their particular fields of study, providing insightful analyses that inform future research (Goyal et al., 2023; Ismail et al., 2024). The combination of R Studio, VOSviewer, and the Scopus database provides a strong foundation for performing bibliometric reviews. This combination makes it possible for academics to efficiently examine publishing trends, visualize data, and extract knowledge from a sizable body of literature, the below Figure 2 mentions the sequential stages where it all used with the usage description of all the particular process. Access to an extensive collection of scientific articles is made possible by the Scopus database, which functions as a comprehensive source for bibliometric analysis (Wargoputri et al., 2024). Researchers can see patterns and clusters in the data by using VOSviewer to visualize bibliometric networks (Jusoh et al., 2024). R Studio offers more sophisticated statistical analysis capabilities, which enhance these tools. The bibliometric data retrieved from Scopus can be processed and analyzed using it, which deepens the understanding of the visualizations created by VOSviewer (Ramadhina et al., 2024; Az-Zahra et al., 2024).

### 2.2. Scoping Review Methodology

Scoping reviews are useful for investigating new subjects and discovering areas of study deficiency, especially in intricate or little-studied fields (Peters et al., 2015). Studies on digital food environments and meal delivery services have proved their usefulness in mapping the scope and composition of the body of existing literature (Granheim et al., 2020; Semblante et al., 2024). The procedure entails methodical procedures like assembling a research team with a range of specializations, formulating a precise research question, and carrying out an exhaustive literature search (Mak and Thomas, 2022). As evidenced by the food delivery service study, which pinpointed opportunities for enhancing app design and operational models, scoping assessments can guide future research approaches (Semblante et al., 2024). Stakeholder consultation can also be included at various stages of the review process to get insightful comments (Mak and Thomas, 2022). Scoping reviews, as a whole, provide an organized method for combining information in developing disciplines. Food truck entrepreneurship is a fast-expanding industry that has drawn scholarly attention because of its special prospects and problems. Although the bibliometric analysis in this study offers a quantitative summary of research trends related to food trucks from 2014 to 2023, a scoping review was also carried out to map the field's thematic landscape. With the help of this method, we may pinpoint the major subjects that have been addressed, important knowledge gaps, and unexplored areas, providing suggestions for future study avenues. In accordance with (Arksey and O'Malley, 2005) recommendations, a scoping review was conducted with the aim of identifying and assessing topical trends and gaps in the field of food truck research. Alongside the findings from the bibliometric study, a thorough search was conducted utilizing database Scopus. The review was guided by the following research questions, which are the main themes that the research on food trucks looks

**Figure 1:** Flow of extracting process



(Flow chart illustrating the search process)

Sources: Constructed by author

at? And What gaps exist in the research addressing food truck entrepreneurship? Only peer-reviewed journal articles, conference proceedings, and noteworthy reports released between 2014 and 2023 were included in the search parameters. In order to gather details on recurrent themes, study contexts, and methodological approaches, the identified studies were evaluated.

### 3. RESULTS

#### 3.1. Main Information of Food Trucks

Figure 3 shows, that bibliometric analysis, which spans the years 2014–2023, offers a thorough synopsis of a field of study that is expanding quickly. A total of 39 different sources released 58

documents over this time, indicating a 10.72% annual growth rate in the topic and growing academic interest. Eleven authors published works that were single-authored out of the 158 authors who contributed to the literature; on average, there were 3.28 co-authors per document. Even with this collaborative aspect, the majority of research is concentrated on a regional or national scale, as seen by the 5.172% of papers involving international co-authorship. The field’s thematic richness is highlighted by the presence of 236 unique author keywords, and a strong research foundation is indicated by the 2,685 references that are cited collectively. The average age of the cited literature is 4.31 years, indicating that the topic is still developing and the publications are relatively recent. The body of research has a moderate impact

within the academic community, with an average of 7.155 citations per document. This indicates that although the field is not highly referenced at this time, it is gaining attention and making a contribution to the continuing scholarly conversation.

### 3.2. Publications Details Year-wise

Figure 4, which shows publication trends in a particular study subject from 2014 to 2023, offers insight into the evolution of research activity over time as documented by Scopus. There were four published documents in 2014; however, this number steadily dropped to two in 2015, and to just one in 2016, indicating a period of very little research activity. With just one publication per year in 2017 and 2018, the pattern stayed unchanged, suggesting a period of modest activity or slow development in the discipline. Nonetheless, 2019 was a pivotal year, as the number of publications skyrocketed to 13, the highest in the previous ten years, indicating a discernible increase in interest, possibly sparked by fresh advancements, discoveries, or outside influences that encouraged scholarly and scientific involvement. Despite this high, the number of publications fell precipitously in the ensuing years, peaking at just one in 2021 and falling to five in 2020. There are a number of reasons for this decline, including changes in the direction of

study, difficulties obtaining funding, or even outside disturbances like the worldwide pandemic. However, the field started to rebound in 2022, with five publications again, and the rising trend persisted in 2023 with a far higher number of ten articles.

This recent increase suggests a return of activity and interest in the topic, suggesting a potential for new research opportunities and renewed academic engagement. All things considered, the graph shows a dynamic and erratic pattern of development, fall, and recovery, with the largest output in 2019, a steep decline in the years that followed, and a hopeful comeback by 2023, indicating a promising trajectory for further research.

### 3.3. Publications Details Country-wise

Based on Figure 5 illustrates a country-wise distribution of documents connected to food truck research, as indexed by Scopus, comparing the document counts for up to 15 nations. With almost 22 documents, the United States contributes the most publications, taking the lead by a wide margin. This indicates that probably as a result of the popularity of food trucks in American culture and business, the United States is the nation conducting the most food truck-related research. After the United States, Brazil and Malaysia have made noteworthy contributions as well, with roughly 8 documents apiece, suggesting that these nations have substantial scholarly interest in food trucks as well. These countries may have developed or expanded food truck markets that have drawn interest from researchers. The next country with roughly 6 papers is Canada, which indicates a reasonable amount of research output in this area. Each of the following countries contributes roughly 2-4 documents: China, India, Italy, Poland, Saudi Arabia, and South Africa. This suggests that these countries have smaller research communities or are starting to show interest in food trucks. Overall, the graph shows that scholarly interest in food truck research is concentrated in a small number of nations, the United States being the obvious leader, though reasonable levels of involvement are also shown by Brazil, Malaysia, and Canada. The study landscape on food trucks shows a smaller but noticeable presence from the remaining countries.

Figure 6, which shows the amount of research produced globally on food trucks, is colored blue in different ways depending on the nation. The darkest hue indicates that the United States is by far the largest contributor in the food truck research, which is not surprising given the prominence of food trucks in American urban culture and economy. Darker colors indicate significant

Figure 2: Research stages and its description

S.no	Stages	Description
1	Scopus	TITLE-ABS-KEY(food trucks) AND (LIMIT-TO ( EXACT KEYWORD, "Food Truck" ) OR LIMIT-TO ( EXACT KEYWORD, "Food Trucks" ) )
2	Rstudio	Library(bibliometris ),biblioshiny()
3	Biblioshiny Program	Data- Load Data- Import the Exported CSV file from Scopus Database- run the required analysis.
4	VOSviewer	Create- Run Map using bibliographic data- use a required type of visualization to display the output.

Sources: Constructed by author

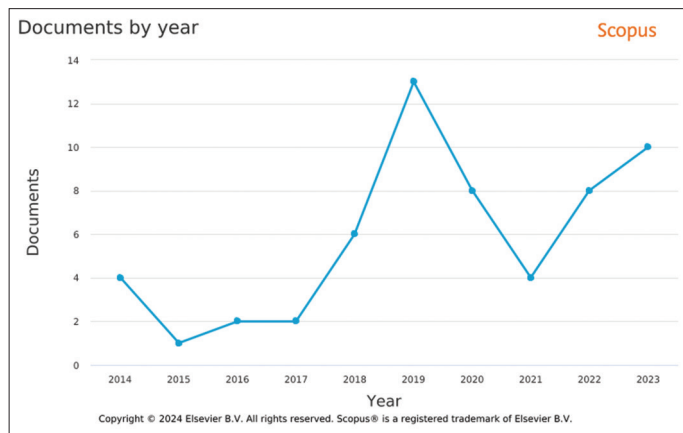
Figure 3: Overall main information



Source: Constructed by authors using Scopus database

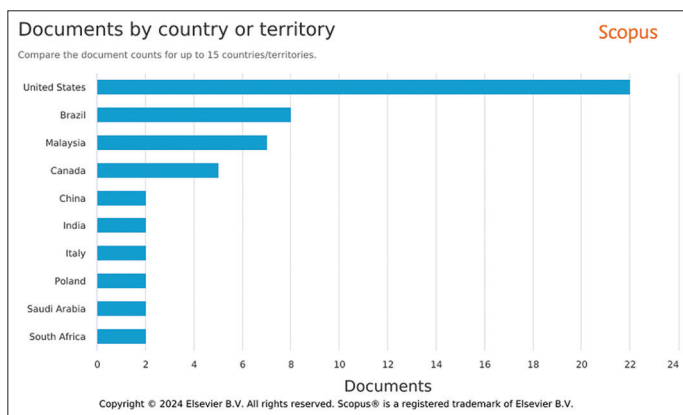
contributions from Brazil, Canada, Malaysia, and Australia as well, which may be related to the expansion of the food truck businesses. Lighter hues in nations like China, India, and other regions of Europe and South America signify a moderate level of research activity and growing interest as the food truck culture spreads.

**Figure 4:** Documents by year



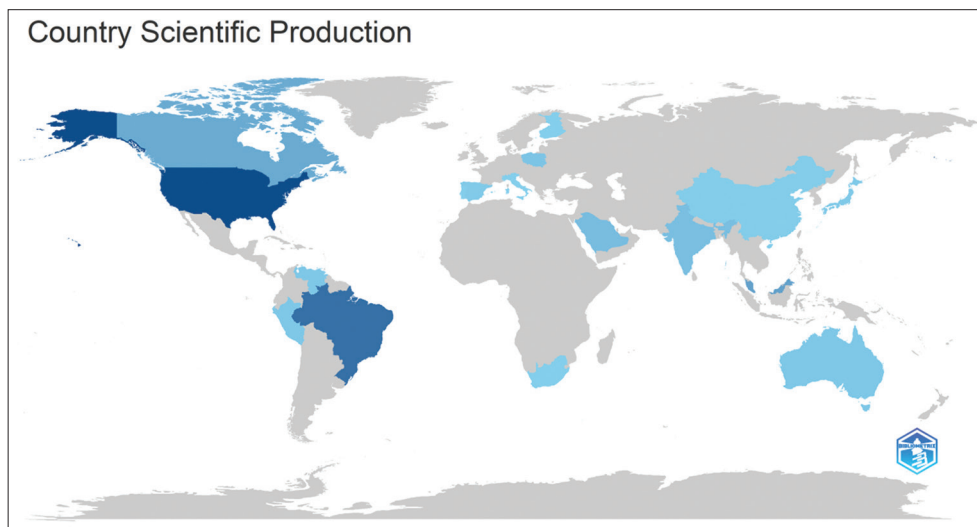
Source: Constructed by author using Scopus database

**Figure 5:** Documents produced by countries



Source: Compiled by author using Scopus database

**Figure 6:** Countries mapping on documents production



Source: Constructed by author using Scopus data base

In contrast, significant areas, including most of Africa, Eastern Europe, and portions of Asia, remain uncolored, showing weak or no study engagement in this sector, potentially due to the restricted number of food trucks or early phases of academic interest. All things considered, the map demonstrates that although food truck research is geographically dispersed, it is mostly focused in a few strategic areas, with the United States setting the standard and other nations exhibiting increasing scholarly involvement.

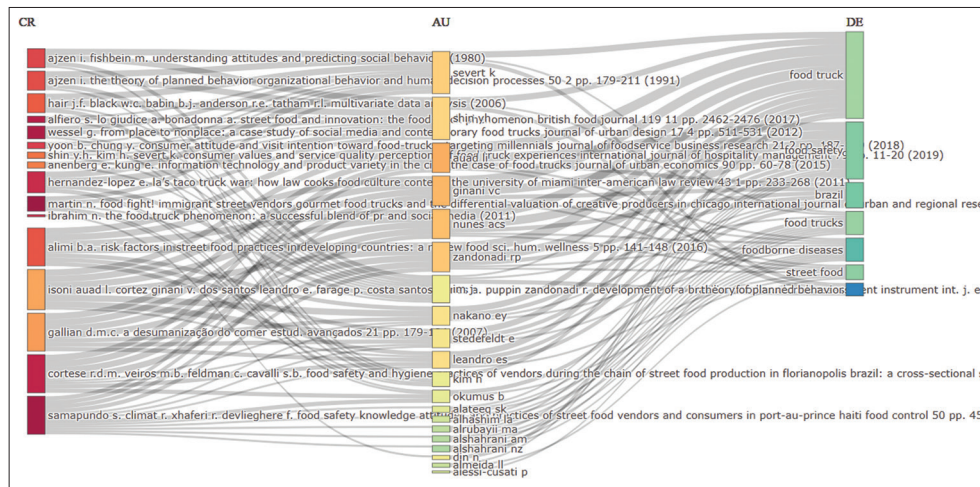
### 3.4. Three field Plots for the Study

In a bibliometric analysis of food trucks above Figure 7 Shows, the relationships between authors (AU), keywords or topics (DE), and key cited references (CR) are depicted in a three-field layout. Ajzen’s “Theory of Planned Behavior” and Hair’s “Multivariate Data Analysis,” two seminal works that shaped the research on customer behavior, organizational processes, and societal attitudes within the food truck business, are displayed in the mentioned references on the left. Key contributors to food truck research, such as Severt K, Shin Y, and Zandonadi R, are listed in the center section. The works that are widely mentioned are indicated by the lines connecting the cited references to these writers, emphasizing the intellectual relationships between significant studies and their contributors. The research topics are represented by the keywords on the right, which include “food trucks,” “food safety,” “street food,” and “urban design.” The relationships between writers and subjects highlight the distinct areas of interest for various academics; for instance, some may concentrate on food safety or urban policy, while others may focus on consumer behavior. This graphic aids in delineating the terrain of food truck study by illuminating how seminal works impact well-known writers and the essential ideas that propel the scholarly conversation in this area.

### 3.5. Factorial Analysis of Food Truck Studies

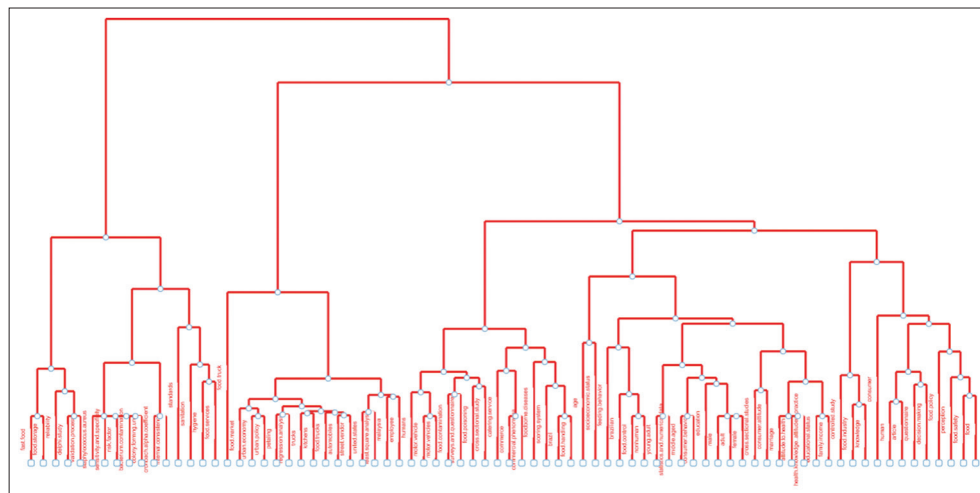
Figure 8 dendrogram illustrates links and thematic groupings within the research by presenting a hierarchical clustering of key terms from a bibliometric study on food trucks. The clusters show different related fields of research. Terms like “fast food,” “restaurants,” “street

**Figure 7:** Three field plots on food vendors’ study



Source: Constructed by author using Scopus database

**Figure 8:** Factorial analysis of food truck studies



Source: Constructed by author using Scopus database

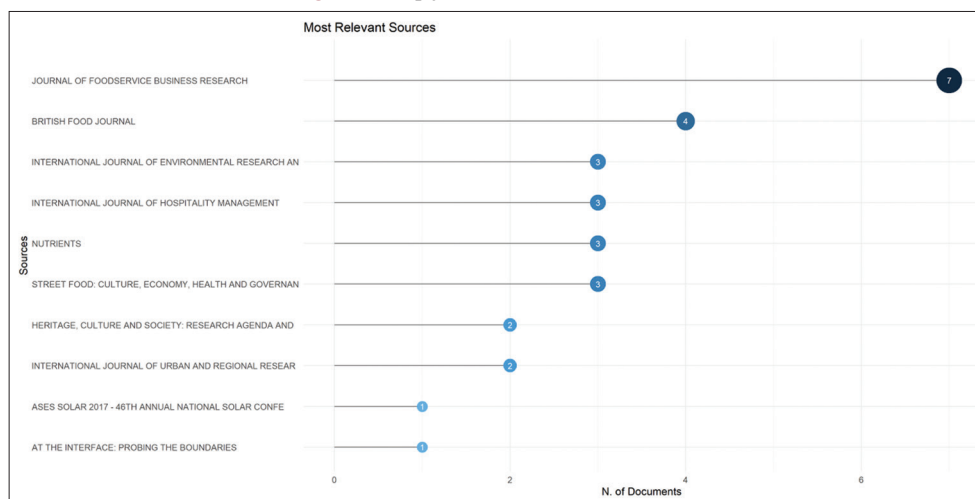
food,” and “entrepreneurship” are grouped on the left, indicating that a large portion of the research focuses on how food trucks fit into the larger framework of street vendors, food service, and business innovation. The middle portion emphasizes terms like “community,” “sustainability,” “local food,” and “urbanism,” suggesting an emphasis on the function of food trucks in local food movements and urban development. The terms “health,” “food security,” and “nutrition” also allude to issues with food trucks that are relevant to public health and safety. Terms like “policy,” “regulation,” and “urban planning” probably address regulatory and policy challenges, while terms like “consumer behavior,” “human capital,” and “competitive study” reflect research on market dynamics and customer preferences in the food truck business. These themes are visually arranged in a dendrogram that demonstrates the connections between several facets of food truck research, including entrepreneurship, urban planning, health, and policy. Terms that are closer together indicate more frequent co-occurrence in scholarly publications.

**3.6. Most Relevant Sources in the Domain**

The academic journals that provide the most documents to this field of research are highlighted in Figure 9, which shows the most

pertinent sources in bibliometric analysis of food trucks. With seven publications, the Journal of Foodservice Business Research stands out as the most significant, demonstrating its key position in research on food service management and food truck business features. The importance of the British Food Journal in examining food culture, economics, and consumer behavior related to food trucks is demonstrated by the four documents that follow. The interdisciplinary nature of food truck research is demonstrated by the three papers contributed by several other journals, which touch on public health, hospitality, and nutrition. These journals include the International Journal of Environmental Research and Public Health, the International Journal of Hospitality Management, and Nutrients.

Furthermore, two documents concentrating on urban planning, governance, and the socioeconomic effects of food trucks are available from sites like Street Food: Culture, Economy, Health, and Governance and the International Journal of Urban and Regional Research. Lastly, modest contributions from sites such as ASES Solar 2017 and At the Interface: Probing the Boundaries with 1 document each reveal occasional references to

**Figure 9:** Top journals chart on the domain

Source: Compiled by author using Scopus data base

sustainability and broader societal issues relating to food trucks. Overall, the figure highlights the varied variety of journals that shape the academic literature on food trucks, with a strong focus on foodservice, health, and urban governance.

### 3.7. Thematic analysis of food truck keywords

Figure 10, a thematic map that classifies subjects according to two dimensions development degree (Density) and relevance degree (Centrality) illustrates the framework of study in the food truck business. Topics like human behavior, gender studies (adult, female, and male), and questionnaire-based research are well developed and central in the upper-right quadrant (Motor Themes), indicating a strong focus on demographic and human components in food truck study. Though the wider economic and policy effects of food trucks are examined, they are not yet the main emphasis. Specialized but less central issues like urban economy and urban policy are found in the upper-left quadrant (Niche issues). The lower-left quadrant (Emerging or Declining Themes) includes themes like vehicles, trucks, and regression analysis, which show that prior research may have focused on transit logistics or technical issues, but these areas are now less relevant. In the meantime, the lower-right quadrant (Basic Themes) contains important but undeveloped themes like food safety, the food industry, knowledge, and geographic focuses on the US and Malaysia. These themes highlight fundamental but important research areas that are crucial to comprehending the food truck industry but may need more work. Overall, this map indicates emergent and niche issues for further research as well as important areas of concentration, such as food safety and demography studies.

### 3.8. Most Relevant Authors in the Domain

Figure 11 presents the most active authors who have contributed to the field of food truck research, highlighting influential individuals. With five published papers apiece, Auad LI, Ginani VC, Nunes ACS, and Zandonadi RP lead the group and are regarded as important contributors whose work has probably advanced the study of food trucks. With four publications apiece, Severt K and Shin YH are close behind and continue to be significant

contributors to the scholarly conversation. Meanwhile, LEANDRO ES, NAKANO EY, and STEDEFELDT E have each produced three papers, most likely enhancing specialized sections within the field as a whole. DIN N contributes to the body of knowledge, albeit on a smaller scale, with two publications. Overall, a small number of academics have a significant influence on the subject; the leading authors provide the majority of scholarly work, while others offer diversity and depth in their exploration of other facets of food truck study, ranging from operations to policy implications.

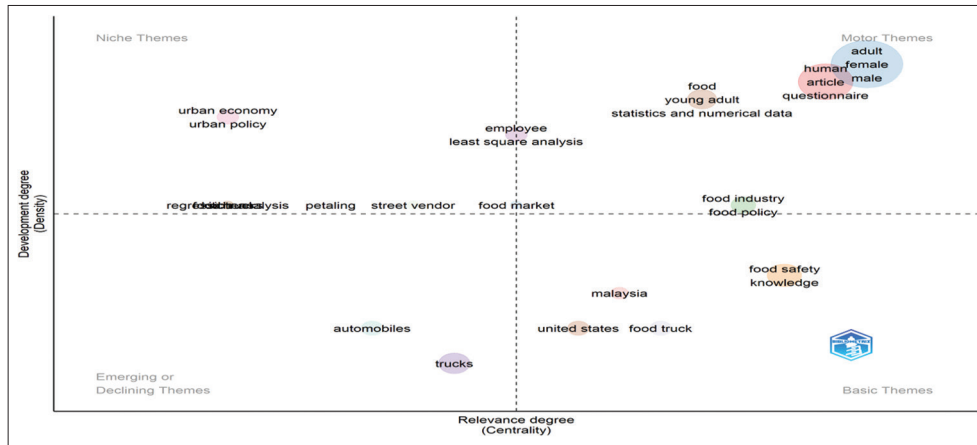
### 3.9. Most Relevant Word in the Domain

The food truck research most relevant word Figure 12 identifies important topics of interest in the literature. The term “food safety” is the most commonly occurring, appearing 16 times, suggesting that this industry places a high priority on maintaining safety in food truck operations. The word “Human” appears 12 times, indicating that human elements such as worker dynamics, vendor policies, and customer behavior should receive a lot of attention. The phrase “Article” (10 times) most likely refers to methodological debates or the research’s frequent citing of papers. “Brazil” (9 instances) suggests a specific geographic area, potentially indicating a concentration of food truck research in this area. Keywords like “Adult,” “Female,” “Male,” and “Food poisoning” (8 occurrences each) imply an interest in demographic analysis and the health concerns linked with foodborne infections. Eight occurrences of “Trucks” are directly related to the topic, and seven occurrences of “Food contamination” underscore safety concerns even more. Overall, the terms that are commonly associated with safety, human behavior, and geographic focus specifically, Brazil highlight the fundamental themes that guide research on food trucks, with a particular focus on guaranteeing food safety and comprehending the demographic and geographical dynamics of the sector.

### 3.10. Most Global Cited Documents

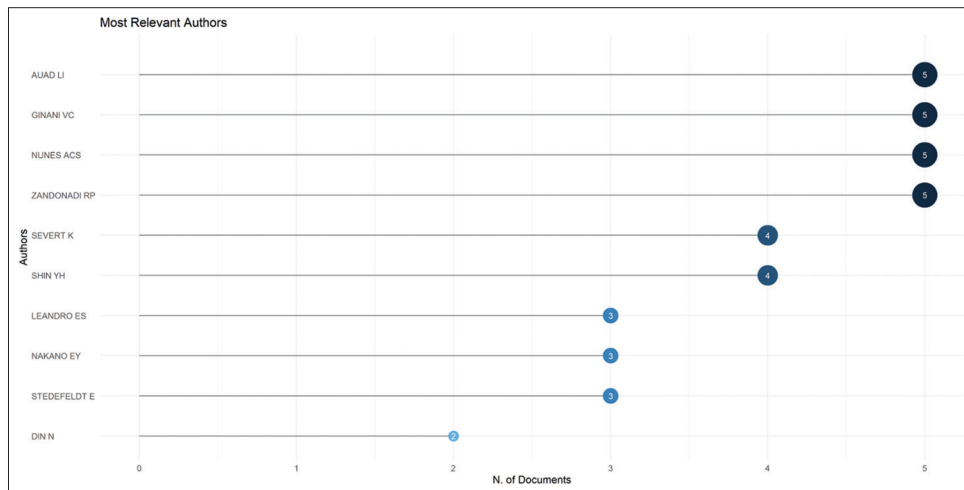
The Figure 13, illustrating the most widely referenced papers in the subject of food truck study illustrates the importance and influence of individual studies in this area. (Martin, 2014), published in the International Journal of Urban and Regional Research, is

**Figure 10:** Thematic map by search domain



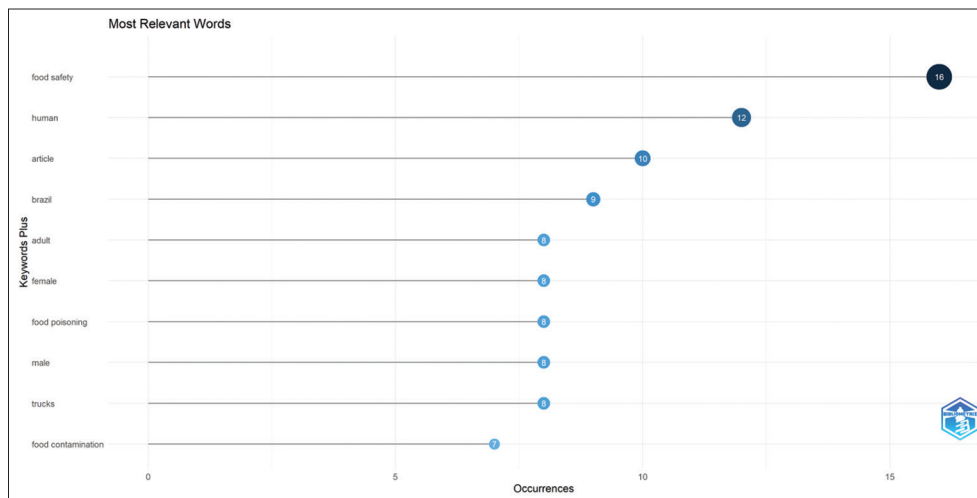
Source: Compiled by author using Scopus data base

**Figure 11:** Top authors on food vendor’s study



Source: Constructed by author using Scopus data base

**Figure 12:** Most relevant keywords by search



Source: Compiled by author using Scopus data base

the most highly cited publication with 47 citations, suggesting a major influence, maybe in researching the nexus between food trucks and urban development or policy. Shin et al. (2019) in the

International Journal of Hospitality Management follows with 40 citations, demonstrating its importance in hospitality management, possibly addressing food trucks from a commercial or operational



standpoint. With 29 and 27 citations in each of his two entries in the Nutrients category, Auad et al. (2019) has made important contributions to the field of public health and nutrition in the context of food trucks. Other noteworthy documents that reflect important research on food safety, business tactics, and public health are Gopi and Samat (2020) in the British Food Journal, which has 22 citations; Okumus (2019) in the International Journal of Hospitality Management, which has 21 citations; and Shin Y.H. (2018) in the Journal of Foodservice Business Research, which has 18 citations. The list demonstrates the variety of viewpoints in food truck research, covering topics such as public health, nutrition, urban policy, and hospitality management. Studies published in a variety of journals have made significant contributions to the conversation.

### 3.11. Trending Topics Related to the Keywords

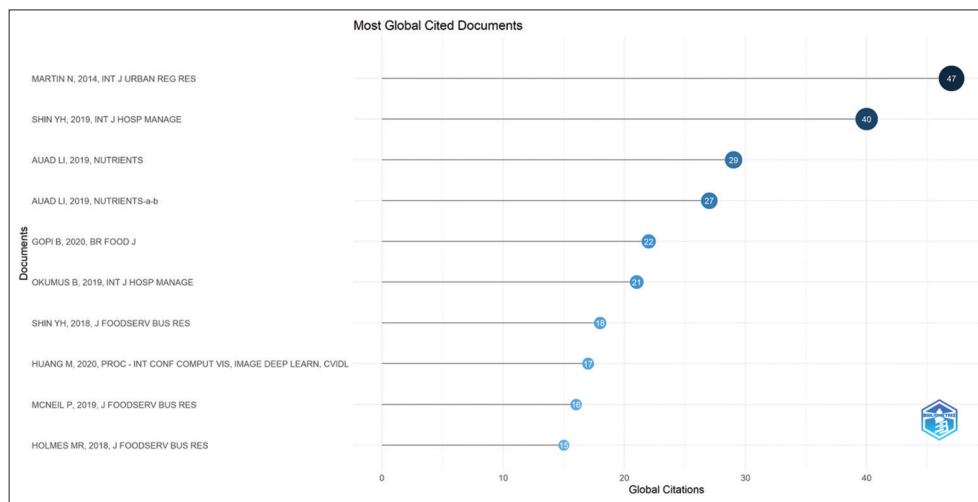
The trend topics Figure 14, highlights the frequency and significance of specific terms, and it displays the major study issues related to food trucks from 2017 to 2023. Throughout the timeline, the United States is by far the most popular topic, which reflects the region’s heavy emphasis on food trucks as a topic of study and phenomenon of culture. Other noteworthy phrases that indicate that research in this field frequently focuses on human aspects, techniques, and

Survey-based investigations are questionnaires, articles, and humans. Another important subject is food safety, which is reflected in studies and growing worries about regulations and cleanliness in the food truck business. Brazil shows its growing interest in the food truck business by emerging as a secondary key region. Other terms like adult and trucks highlight the studies’ primary subject area and demographic focus. Larger circles denote more frequent research on those subjects, highlighting the prevailing patterns in food truck research throughout time. The size of the circles also represents the frequency of such terms.

### 3.12. Word Analysis using Tree-map Plot and Most Frequent Words

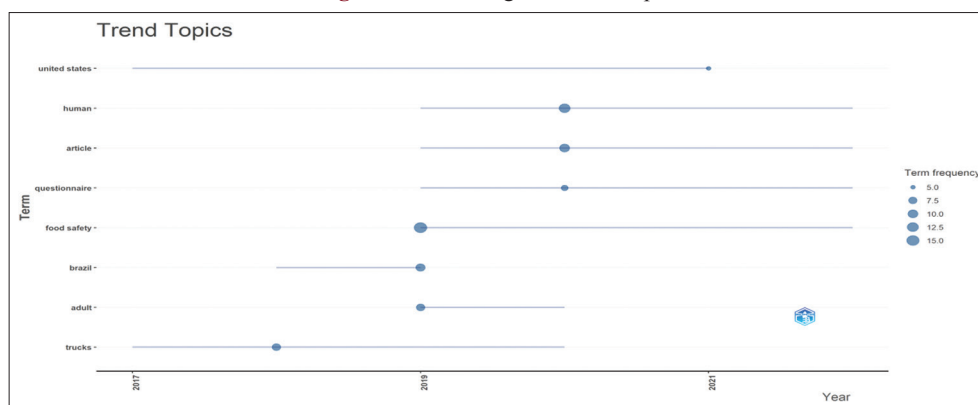
The visualization of the word tree map Figure 15 gives a summary of the terms that appear most frequently in food truck-related articles. With 7% of all terms used in research, food safety dominates the field, indicating a strong academic interest in the health and legal issues surrounding the food truck industry. Other notable terms that emphasize Brazil as a major geographic area of attention, the human element of studies, and the type of publications evaluated are article (4%), human (5%), and Brazil (4%). The following age and gender groups: male (3%), adult (3%), female (3%), and

Figure 13: Top and most global cited documents to the study



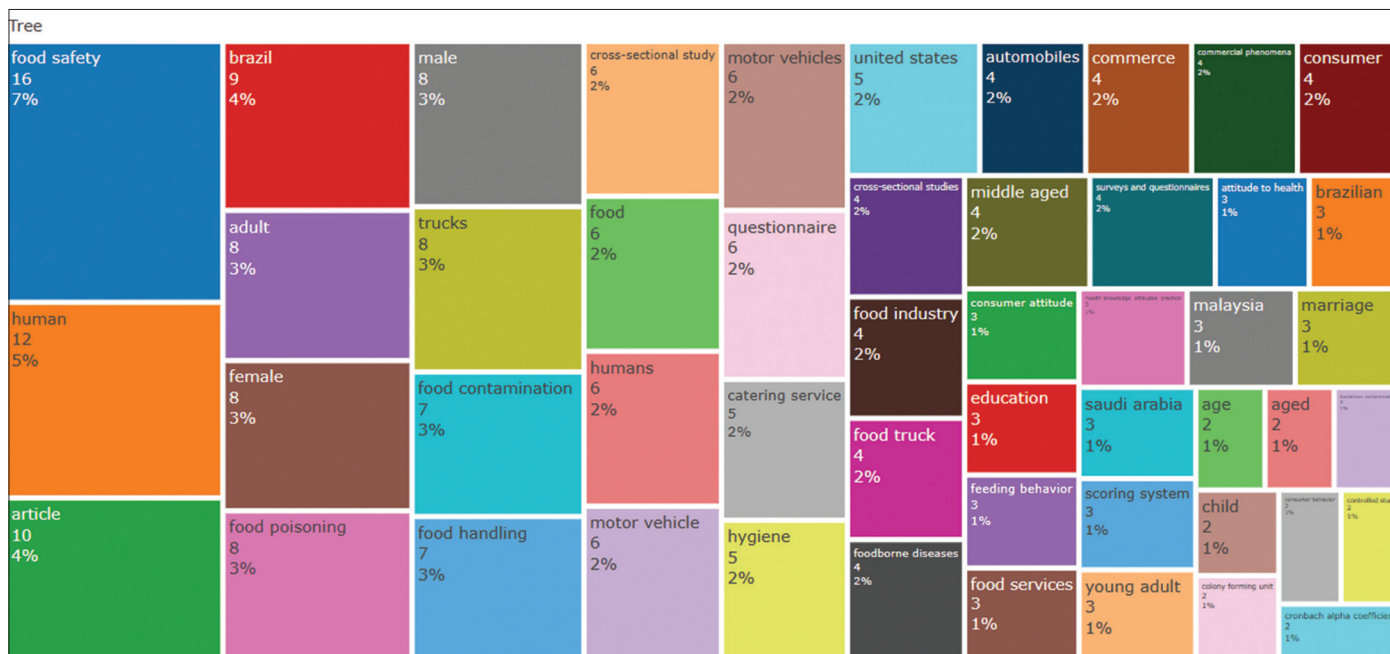
Source: Constructed by author using Scopus data base

Figure 14: Trending and Niche topics



Source: Compiled by author using Scopus data base

**Figure 15:** Word tree map by keywords



Source: Constructed by author using Scopus data base

middle-aged (2%) indicate that demographic aspects are frequently researched. In addition to the phrase “trucks,” which appears 3 percent of the time, other commonly mentioned themes include food poisoning, food handling, and contamination of food. Survey techniques and observational designs are widely used in research, as seen by the prevalence of questionnaires and cross-sectional studies. Additionally, phrases like vehicles, commerce, and catering service show that food trucks are investigated not only from a food safety and demography standpoint but also as mobile businesses in the commercial and automotive sectors. The image represents the vast spectrum of subjects being investigated about food trucks, spanning from public health to consumer behavior and economic structures.

### 3.13. Processing of Scopus Extracted Data of Food Truck Studies using VOS Viewer Software

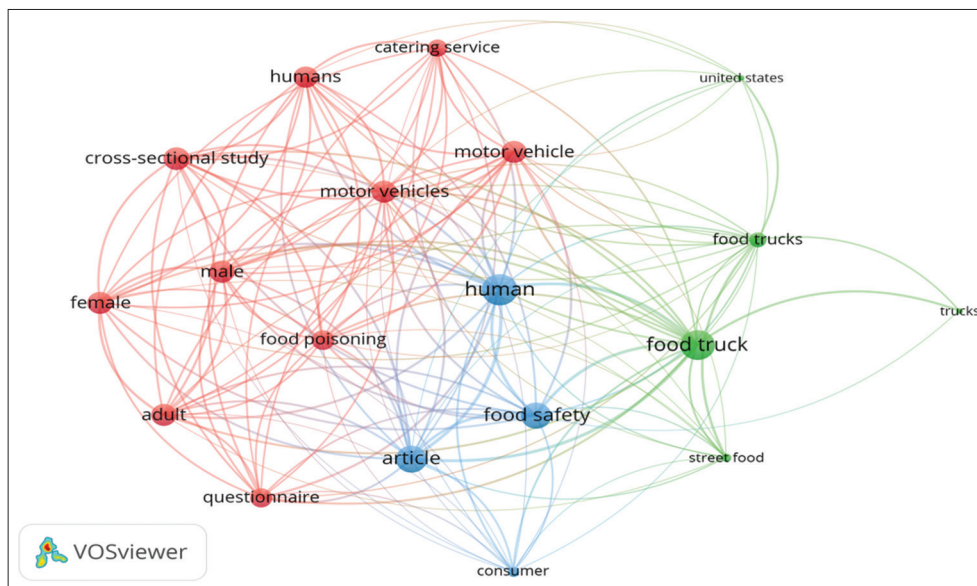
A network of terms related to food truck research is depicted in Figure 16. One technique for examining the connections between words in a collection of documents in this case, perhaps scholarly publications about food trucks is network analysis. The size of each circle indicates the frequency with which a term appears. The circles reflect keywords or study subjects that were derived from the articles. Co-occurrence, shown by the lines joining the circles, indicates that the terms frequently occur together in the same articles. The strength of this co-occurrence is reflected in the thickness of the lines.

With a big circle with the name “food safety,” in the middle of the network, it emphasizes the importance of this topic. Terms like “street vending” and “legislation” are linked to “food safety,” suggesting that studies in this field should pay special attention to the rules and legal frameworks controlling mobile food enterprises. “Customer satisfaction,” which is related to phrases like “consumer behavior” and “food quality,” is the subject of another noteworthy cluster. For food truck enterprises to succeed,

this cluster emphasizes how critical it is to comprehend consumer preferences and uphold strict culinary standards. The network diagram shows intriguing relationships between ideas that at first glance appear unconnected. For example, the co-occurrence of “foodborne illness” and “food safety” emphasizes the continued need to stop foodborne disease outbreaks associated with food trucks. Further analysis of the map provides greater context for understanding patterns in food truck research. For instance, there is a cluster around the term “food trucks” associated with terms like “motor vehicle,” “food safety,” and “United States,” which may indicate that study on human-related variables and publications is becoming more popular. Moreover, phrases like “food truck” and “food truck,” which are not central but appear close to one another, may point to an emerging field of study that is still developing. It’s crucial to keep in mind that, depending on the keywords and data sources utilized, network visualizations like this one only offer a restricted perspective. All the same, this network map produced by a VOSviewer bibliometric analysis provides insightful information about the subject terrain of food truck study. It draws attention to important concerns like food safety and consumer happiness and shows how these important subjects relate to one another.

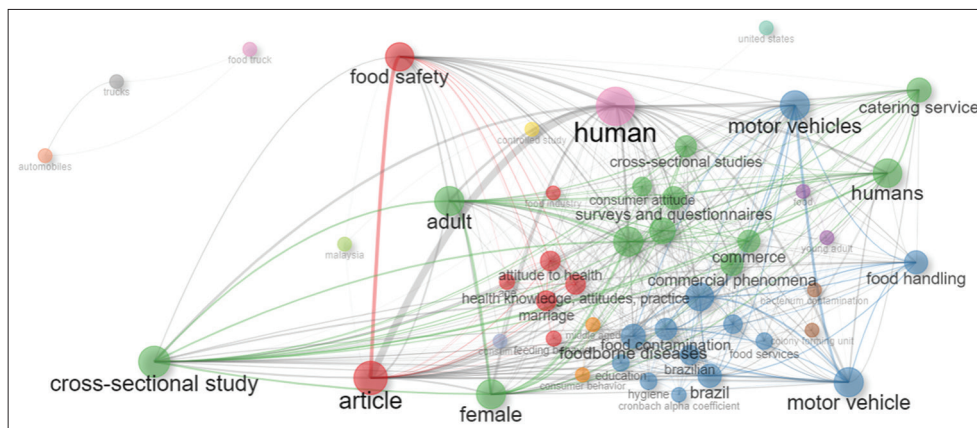
A network of terms from a bibliometric study on food trucks is shown in Figure 17, VOSviewer visualization, with an emphasis on studies involving the terms “food safety,” “human,” “motor vehicle,” and “cross-sectional study.” Every circle denotes a research theme or term, and the size of the circle shows how frequently the theme or keyword appears in the literature under study. Co-occurrence relationships are represented by lines joining the circles; the strength of the connection is indicated by the line’s thickness. Given its prominent placement and close ties to several important issues, such as “article,” “foodborne diseases,” and “food handling,” it is clear how important “food safety” is. This implies that one of the main areas of inquiry should be food safety issues,

**Figure 16:** Co-occurrence analysis



Source: Compiled by author using Scopus data base

**Figure 17:** Network analysis



Source: Constructed by author using Scopus data base

especially as they pertain to mobile food services. Another important cluster is “cross-sectional study,” which is related to “adult” and “article.” This suggests that a large portion of the research uses cross-sectional methods, which are usually used to evaluate data at a certain point in time, frequently concerning human participants. The phrases “human” and “female” are commonly found in this cluster, indicating that demographic factors like gender are routinely taken into account in the research. The relationship between “motor vehicle” and “motor vehicles” and “food safety” and “catering service” suggests that the hazards and operational facets of vehicle-based food distribution are being researched about mobile food services, such as food trucks. Additionally, the inclusion of phrases like “commercial phenomena” and “commerce” suggests that food trucks’ business and economic aspects are taken into account.

**3.14. Co-occurrence Analysis of Keywords using VOSviewer**

This network visualization in Figure 18 offers a useful summary of keywords associated with food truck research and was produced by a bibliometric study using VOSviewer. The main keyword, “food

truck,” has connections to several topic areas, and study focuses are highlighted by clusters. One cluster, encompassing phrases like “street food,” “customer satisfaction,” and “food industry,” highlights studies on consumer behavior, industry dynamics, and regulatory consequences. Another cluster, which includes words like “trucks” and “automobiles,” focuses on the operational and safety elements of running mobile kitchens. A cluster pertaining to health, which comprises the terms “hygiene” and “foodborne diseases,” indicates that food truck operations prioritize public health, food safety, and hygiene protocols. The terms “critical food studies” and “architectural design,” which are emerging fields, allude to changing interest in the cultural and aesthetic dimensions of food trucks. Terms like “trust” and “customer satisfaction” highlight how crucial it is to comprehend customer preferences and satisfaction for food truck success. While technical phrases like “combinatorial optimization” refer to the integration of technology for enhancing food truck efficiency, terminology like “United States” and “urban policy” reflect spatial and regulatory factors. The interdisciplinary nature of food truck research is generally highlighted by this graphic, which combines public

health, consumer behavior, policy, logistics, and technology to provide a comprehensive picture of the sector.

**3.15. Unit of Co-Occurrence Analysis on Full Counting - Author Keywords.**

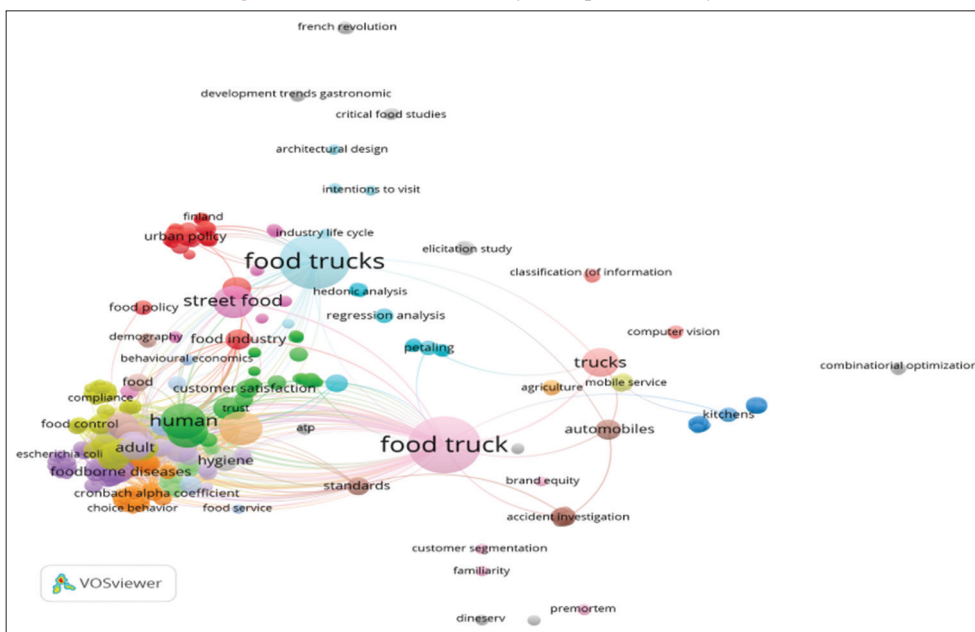
This VOSviewer-created network map in Figure 19, illustrates the connections and recurring themes discovered in academic publications by presenting important terms in food truck study visually. In this graphic, the terms “food truck” and “food trucks” are key terms that have several connections to other concepts, creating clusters that represent distinct research fields. Emphasizing research on public health, food quality, and consumer behavior, the “food truck” cluster has significant connections to subjects like “food safety,” “customer satisfaction,” and “consumer acceptance.” Food safety laws and standards are implied by terms like “HACCP” (Hazard Analysis and Critical Control Points).

Another important cluster centers on “street food,” and it is associated with themes such as “eating out,” “entrepreneurship,” and particular places like “Helsinki” and “Brazil.” This suggests a cross-cultural study of the social and economic effects of street food and mobile vendors. We also observe ancillary clusters about

ideas like “accident investigation” and “environmental impact,” which suggests that food trucks raise both ecological and logistical issues. An increasing interest in sustainable practices within the industry is shown by a smaller cluster on “eco-friendly”. Niche phrases like “literary dinners” and “French Revolution” reflect specialized or unique intersections within the subject, while emerging topics like “architectural design” and “hedonic pricing model” demonstrate interest in the design elements and consumer pricing methods of food trucks. All things considered, this network provides a thorough picture of the multifaceted nature of food truck research, including everything from consumer experience and entrepreneurial prospects to safety and regulations.

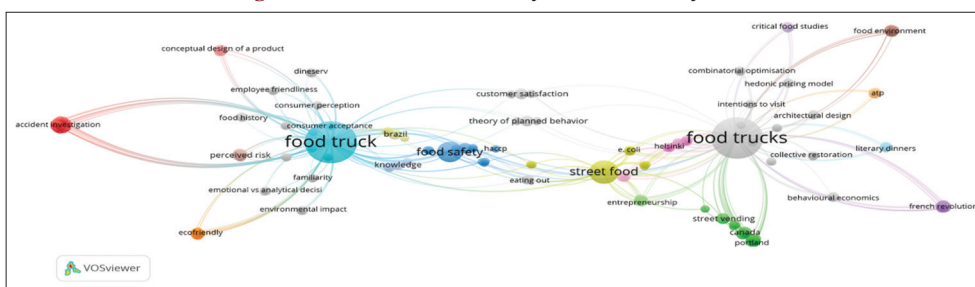
The VOSviewer density visualization in Figure 20, highlights major areas of research and shows the most often-used keywords in food truck-related research. The word “food trucks” is highlighted in the upper right corner, suggesting that it is the main topic of the study. Likewise, the singular form “food truck” is prominently displayed in the lower left corner, indicating that both variations of the phrase are frequently explored in scholarly works. The Figure 21 below The term “street food” in the bottom right of the image draws attention to the overlap that exists between research

**Figure 18: Co-occurrence analysis of particular keywords**

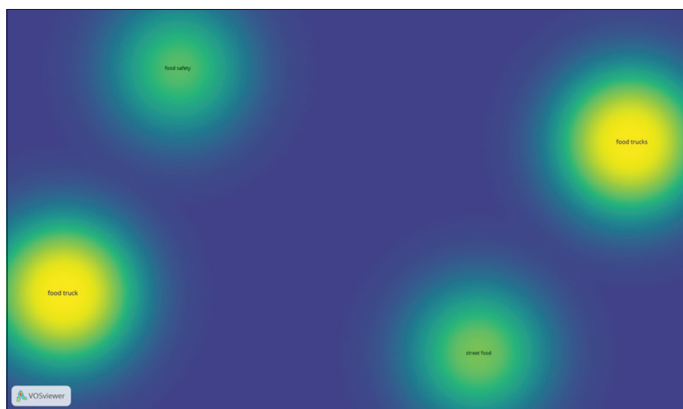


Source: Compiled by author using Scopus data base

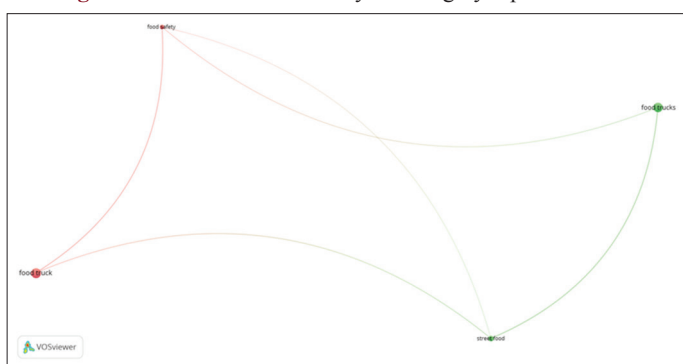
**Figure 19: Co-occurrence analysis of author keywords**



Source: Constructed by author using Scopus data base

**Figure 20:** Density visualization

Source: Compiled by author using Scopus data base

**Figure 21:** Co-occurrence analysis of highly repeated words

Source: Constructed by author using Scopus data base

on food trucks and street food, indicating that many publications look at both facets of mobile food service. Furthermore, the top left focus on “food safety” indicates that issues about health, cleanliness, and regulations are extensively researched in this field. The graphic highlights the main fields of study and how they relate to one another, emphasizing the significance of food safety when it comes to food trucks and other street food businesses.

## 4. SCOPING REVIEW

The purpose of the scoping review was to identify potential gaps for further investigation and to highlight the main areas of attention in the literature by exploring general themes in food truck research. A more thorough grasp of the several themes examined is provided by the scoping review, which dives into the qualitative features of the area while the bibliometric analysis illuminates publication trends and citation effect. The review found a number of recurrent themes in the corpus of studies,

**Entrepreneurial motivations and business strategies:** Studies regularly studied the variables pushing individuals to create food truck operations, particularly in the United States, Brazil, and Malaysia, which are prominent regions for food truck research as shown in the bibliometric study. Low startup costs, flexibility, and the chance to innovate in the food service sector are important motivators. Developing niche markets and engaging customers are two common focuses of entrepreneurial strategies e.g., organic or fusion cuisine.

**Regulatory and Policy Challenges:** Navigating regulatory regimes is a major difficulty for food truck entrepreneurs. This subject is very frequent in studies from nations like the United States and Brazil, where urban planning and food safety rules affect corporate success. Scholars like (Shin et al., 2019) and (Martin, 2014), who were both highly cited in the bibliometric analysis, have stressed the importance of more supportive and transparent regulatory regimes. This is consistent with the bibliometric results’ hierarchical clustering, which demonstrates the close connections between food trucks, legislation, and urban planning.

**Consumer Behavior and Satisfaction:** Customer preferences are essential to the success of food trucks. A corpus of research on consumer behavior was found through the scoping review, with a specific emphasis on food preferences, price sensitivity, and cultural importance. Prominent research in the domain has utilized theories like the Theory of Planned Behavior to comprehend the relationship between client happiness and recurring business. The two main themes identified by the VOSviewer network analysis were “customer satisfaction” and “consumer behavior”.

**Food safety and health concern:** A large amount of the literature, especially in places like Brazil, focuses on food safety and sanitary measures within food trucks. The scoping review supports the bibliometric analysis’s substantial emphasis on “food safety” as a major subject. Articles on foodborne illnesses, contamination concerns, and regulatory compliance can be found in journals like the International Journal of Environmental Research and Public Health and Nutrients. **Urban planning and social impacts:** Food trucks are frequently found in urban areas, which means that the literature frequently discusses how they affect public space use, urban design, and community involvement. Research on this area is still lacking, although studies have demonstrated that food trucks can support sustainable urban development and local food movements. The niche issues noted in the thematic map, where “urban economy” and “urban policy” are existent but underdeveloped, are in line with this subject. Several gaps in the body of work on food trucks exist, despite the scoping review revealing a substantial body of work,

Even with the growing body of studies on food trucks, there are still large gaps. The majority of research is focused on industrialized nations like the US, Brazil, and Malaysia, paying little attention to developing nations like India, especially Tamil Nadu, where food truck entrepreneurship is on the increase. Our comprehension of the unique difficulties these entrepreneurs encounter in negotiating area laws, cultural norms, and financial circumstances is hampered by the lack of a regional emphasis. The lack of long-term research is another significant gap. The majority of research that has already been done uses cross-sectional approaches, which only offer a momentary view of food truck operations. This restriction limits our understanding of how food truck firms can adjust to changing market conditions and regulatory contexts while maintaining long-term sustainability. Furthermore, it appears that not enough research has been done on the application of technological innovation to food truck operations. Few studies look at how digital tools like mobile applications, social media marketing, and cashless payment methods are improving operational efficiency and customer engagement. Most studies address operational difficulties and consumer satisfaction. Finally,

there is still a dearth of study on the gender dynamics of food truck entrepreneurship. While gender is included in bibliometric analysis, there is a lack of research on the specific difficulties and possibilities faced by female entrepreneurs in this sector.

## 5. FINDINGS AND DISCUSSION

The findings from the bibliometric analysis and scoping review demonstrate that food truck research is a growing field with diverse themes, though it remains geographically and thematically limited in certain areas. The outcomes of this study demonstrate the increasing interest of academics in food truck research, as evidenced by the significant increase in publications between 2014 and 2023, which peaked in 2019. This is a reflection of how street food and entrepreneurial innovations have led to the growing acknowledgment of food trucks as a significant sector of the food industry. Nevertheless, research production fell after 2019 possibly as a result of disturbances like the COVID-19 pandemic, but it picked back up in 2022. Geographically, food truck research is concentrated in the United States, most likely because food trucks are so important to American urban culture and economy. Significant contributions are also made by other nations including Brazil, Malaysia, and Canada, although research from developing areas like India and some other parts of Africa where food truck enterprises are growing is lacking. Food safety is growing as a significant problem, especially with hygiene and regulatory compliance.

Other important research themes include consumer behavior, urban planning, and regulatory obstacles. Additionally, the data reveals a moderate level of collaboration among academics, with a few key authors driving much of the work, including (Auad et al., 2019). Despite these realizations, there are still a lot of gaps in the literature, especially when it comes to the paucity of long-term research on the sustainability of food trucks, the lack of emphasis on developing nations, and the understudied topics of gender dynamics and the use of technology in food truck operations. Although customer happiness and food safety have been well studied, specialized topics like municipal policy and the financial effects of food trucks need more study. The United States' dominance in the research output is unsurprising, given the country's strong food truck culture, but there is a clear need for more studies from other regions where the food truck industry is evolving, particularly in developing countries. This would provide a more global perspective on the challenges and opportunities faced by food truck entrepreneurs in different contexts.

In mobile food enterprises, food safety becomes a crucial issue, echoing larger worries about regulatory compliance and hygiene. Even while this focus is crucial, particularly in light of public health issues, more research should be done in other areas, such as how food trucks affect urban culture and local economies. The theme map indicates areas for future research, as food safety is highly researched, but policy and urban economy are still rather specialist topics. Research on consumer behavior is essential to understanding the factors that propel food truck success, especially studies that look at customer happiness and repeat business. The relationship between consumer preferences and business tactics implies that innovation like providing special or niche menu options is essential to the survival and expansion of food trucks.

To further understand food trucks' long-term business strategies and resiliency in the face of shifting market conditions, more research is necessary. A significant gap exists in the literature regarding gender dynamics in food truck entrepreneurship, as it fails to acknowledge the particular obstacles and possibilities that female entrepreneurs encounter in this field. Additionally, despite technology's growing significance in contemporary business practices, little is known about how it might improve food truck operations, from cashless payments to social media marketing.

## 6. CONCLUSION

This study offers a thorough scoping overview and bibliometric analysis of food truck research from 2014 to 2023, emphasizing important themes, trends, and gaps. Scholarly interest in the area has increased significantly, reaching a high in 2019 and then beginning to decline after the pandemic in 2022. The majority of research is conducted in the United States, while significant contributions are also made by Brazil and Malaysia. Research from emerging nations where food truck enterprises are expanding is scarce, though. Urban planning, consumer behavior, and food safety are important topics. Owing to hygienic concerns and legal mandates, food safety has become a top priority. Despite a moderate level of collaboration among researchers, the majority of the study is still conducted by a select group of well-known authors.

## 7. CONTRIBUTION

By utilizing bibliometric methods and scoping methodologies to identify the most explored subjects, gaps, and key authors, this study contributes to the body of literature by methodically mapping the field of food truck research. In addition to highlighting the importance of food safety and consumer behavior in this field, it offers insights into the geographic concentration of food truck research. Furthermore, it provides a starting point for future studies by pointing out neglected topics like gender dynamics and the function of technology in food truck operations.

## 8. LIMITATIONS

The study is constrained by its dependence on papers indexed in the Scopus database, which may cause it to miss significant contributions from grey literature or other databases. Furthermore, the analysis may overlook pertinent research conducted in other languages because it only looks at materials published in English and Spanish. The inability to investigate the long-term viability and development of food truck enterprises is another consequence of a scarcity of long-term data.

## 9. FUTURE RESEARCH

More long-term research on the resilience and sustainability of food truck enterprises in shifting markets and regulatory landscapes is needed. Future studies should also concentrate on emerging areas where food truck entrepreneurship is growing, offering a broader global perspective on the potential and constraints faced by the sector. Another topic that is worth looking

into is how technology may improve payment processes, consumer involvement, and operational efficiency. Finally, more focus should be placed on gender dynamics, specifically looking at the opportunities and particular difficulties experienced by female food truck entrepreneurs.

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