



Review Article

Mapping Halal Food Consumer Research: Global Trends, Intellectual Structure and Emerging Themes

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Abstract

This study aims to analyze the global development of halal food consumer research using a bibliometric approach to identify publication trends, intellectual structures, dominant themes, and future research directions. Data were retrieved from the Scopus database using the keywords “halal food” and “customer/consumer” for the period 2016–2025. After screening by publication year and document type, 439 documents were included and analyzed using Bibliometrix, Biblioshiny, and VOSviewer. The findings show that halal food consumer research has grown substantially, with Malaysia and Indonesia emerging as the leading contributors. The dominant research themes include purchase intention, religiosity, trust, halal certification, halal awareness, and consumer behavior. Keyword co-occurrence analysis indicates that the field has evolved from religion-centered perspectives toward broader multidisciplinary issues, including halal supply chains, traceability, blockchain, food security, social media, and digital halal marketing. These findings confirm that halal food consumer research is no longer limited to religious considerations but has expanded into technology, sustainability, and industry strategy domains. Future studies should further explore the integration of artificial intelligence, digital traceability systems, sustainable halal consumption, and cross-country comparisons of halal consumer behavior.

Keywords

Bibliometric analysis; Consumer behavior; Halal certification; Halal food consumer; Purchase intention.



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INTRODUCTION

The global halal food industry has experienced substantial growth over the last decade, driven by the increasing Muslim population, rising awareness of halal standards, and the expansion of international halal markets. Halal food is no longer perceived solely as a religious obligation for Muslim consumers, but also as an indicator of food safety, hygiene, ethical production, and quality assurance (Rejeb et al., 2021). This transformation has positioned halal food as an important sector within the global food industry and has attracted growing scholarly attention across various disciplines, including marketing, consumer behaviour, tourism, hospitality, food science, and supply chain management.

Research on halal-related topics has increased significantly since the early 2000s and has shown rapid development after 2015 due to the continuous expansion of the global halal industry (Shamsudin et al., 2022). Previous bibliometric studies identified increasing publication trends, influential countries, leading journals, and emerging halal-related themes across multiple research domains. These developments indicate that halal research has evolved into a broad multidisciplinary field that requires continuous scientific exploration to support industrial development, consumer needs, and sustainable halal ecosystems.

The increasing demand for halal food products has encouraged extensive research on halal consumer behavior and purchase intention. Previous studies highlighted that halal certification, halal awareness, and brand image significantly influence consumers' intention to purchase halal food products. Research in Indonesia demonstrated that halal certification positively affects both brand image and purchase intention, while halal awareness also strengthens consumers' buying intention. Furthermore, brand image mediates the relationship between halal certification and purchase intention, indicating the importance of trust and perceived credibility in halal food consumption behavior (Djakasaputra et al., 2023). Global demand for halal food continues to increase due to the growing Muslim population and rising awareness of halal practices among Muslim and non-Muslim consumers. Recent studies also emphasize that halal certification standards and industry competitiveness play important roles in strengthening the global halal food market, particularly in Malaysia, Indonesia, and Turkiye (Kamil et al., 2025). These findings demonstrate that halal food consumer research continues to expand and provides important theoretical and managerial implications for the halal industry.

Although halal food research has grown rapidly over the last decade, existing studies remain fragmented across diverse themes such as halal certification, religiosity, purchase intention, trust, branding, and digital marketing. Previous bibliometric studies have generally examined halal research from a broad industrial perspective, while comprehensive bibliometric investigations specifically focusing on halal food consumer research remain limited. Furthermore, the rapid emergence of digital halal ecosystems, online consumer engagement, and technology-driven halal consumption has created new research directions that require systematic mapping and intellectual structure analysis. Therefore, a comprehensive bibliometric analysis is needed to identify global publication trends, collaboration networks, influential research themes, and future directions within halal food consumer research.

Compared with traditional narrative reviews, bibliometric analysis provides a more systematic, transparent, and reproducible approach for evaluating scientific development and identifying intellectual structures within a research field (Paul et al., 2021). Bibliometric methods enable researchers to quantitatively analyse publication trends, citation networks, thematic evolution, and collaboration patterns, thereby offering deeper insights into the dynamics of halal food consumer research. Analytical tools such as Bibliometrix and VOSviewer facilitate the mapping of scientific knowledge and the identification of emerging research themes. Furthermore, analytical tools such as Bibliometrix support comprehensive science mapping through flexible and open-source workflows integrated with statistical analysis. These advantages enable researchers to identify knowledge gaps, intellectual structures, and future research directions more effectively within dynamic and multidisciplinary research fields (Aria & Cuccurullo, 2017). VOSviewer is widely used as an open-access bibliometric tool for constructing and visualizing relationships among scientific publications, authors, keywords, and research themes. The software enables researchers to perform exploratory studies by analysing co-occurrence networks, citation patterns, and thematic clusters using bibliographic databases such as Scopus. Compared with traditional literature reviews, VOSviewer provides more systematic and visual insights into research development and emerging topics. Its user-friendly interface, free accessibility, and capability to generate network visualization maps make it highly effective for identifying intellectual structures, research trends, and potential future research directions across multidisciplinary fields (Kirby, 2023). However, comprehensive bibliometric investigations specifically focusing on halal food consumer research remain limited.

Therefore, this study aims to conduct a bibliometric analysis of halal food consumer research indexed in the Scopus Database between 2016 and 2025. The study seeks to identify global publication trends, influential journals, productive authors, leading countries, institutional collaborations, and the intellectual structure of the field. In addition, this study explores emerging themes and future research directions through keyword co-occurrence, thematic mapping, and trend topic analyses. The findings are expected to provide a comprehensive understanding of the evolution of halal food consumer research and offer valuable insights for academics, policymakers, and industry practitioners in developing more sustainable, integrated halal ecosystems and consumer-oriented halal food strategies.

MATERIALS AND METHODS

Research Design

This study employed a bibliometric analysis approach to systematically evaluate the development of halal food consumer research. Bibliometric analysis is widely used to quantitatively and visually analyze scientific publications, identify intellectual structures, examine collaboration networks, and detect emerging research themes within a specific field. Compared with traditional narrative reviews, bibliometric approaches provide more objective, transparent, and reproducible analyses of scientific literature. In addition, bibliometric methods are particularly useful for mapping rapidly growing and multidisciplinary research domains such as halal food consumer studies.

Data Source and Search Strategy

The bibliographic data used in this study were retrieved from the Scopus Database because it is one of the largest and most comprehensive databases for peer-reviewed scientific publications. Scopus provides extensive metadata coverage, including authors, affiliations, citations, abstracts, and keywords, which are essential for bibliometric analysis.

1. The document search was conducted using the following query:
TITLE-ABS-KEY ("halal food" AND (customer OR consumer))
2. The initial search identified 566 documents. To ensure the relevance and recency of the dataset, publication years were limited to 2016–2025 using the following filtering criteria:
TITLE-ABS-KEY ("halal food" AND (customer OR consumer)) AND PUBYEAR > 2015 AND PUBYEAR < 2025
3. This filtering process resulted in 502 documents. Furthermore, document types were restricted to articles (ar), conference papers (cp), and review articles (re) to maintain publication quality and relevance. The final query was:
TITLE-ABS-KEY ("halal food" AND (customer OR consumer))
AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "cp") OR LIMIT-TO (DOCTYPE, "re")) AND PUBYEAR > 2015 AND PUBYEAR < 2025
4. After the screening process, 439 documents were included in the final dataset for bibliometric analysis.

Document Selection Process

The document selection process followed the PRISMA Flow Diagram framework to ensure transparency and reproducibility in the screening procedure. The identification stage yielded 566 records from the Scopus database. After publication year filtering, 64 records were excluded, leaving 502 documents. Subsequently, document type screening excluded 63 records that did not meet the inclusion criteria. Finally, 439 documents were retained for bibliometric analysis. The Prisma Flow Diagram Framework of this research are illustrated in Figure 1.

Data Analysis

The bibliometric analysis was conducted using Bibliometrix and VOSviewer. This study used RStudio version 4.6.0 to run the Bibliometrix and Biblioshiny version 5.0. Biblioshiny was used for descriptive bibliometric analysis, including annual publication trends, most productive authors, leading countries, source analysis, citation analysis, and thematic evaluation. The package also supports comprehensive science mapping and statistical analysis through reproducible workflows. Meanwhile VOSviewer version 1.6.20 was used for bibliometric network visualization.

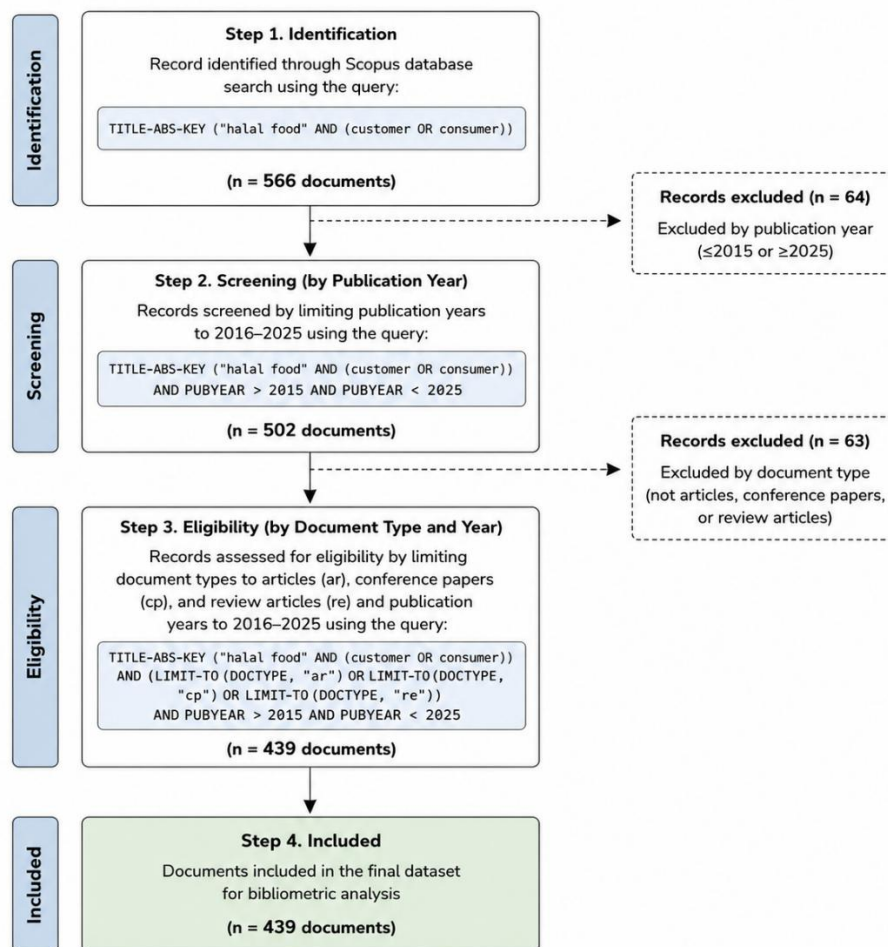


Figure 1. The PRISMA Flow Diagram Framework

RESULT AND DISCUSSION

1. Global Trends in Halal Food Consumer Research

This section presents the global trends in halal food consumer research during 2016–2025 through a bibliometric perspective. The analysis highlights four major aspects: main bibliometric information, publication and citation trends, global publication distribution by sources and countries, and publication characteristics by document type and subject area. Together, these indicators provide a comprehensive overview of research development and scholarly contributions in the field.

Halal food consumer research experienced substantial scientific development between 2016 and 2026 (Figure 2). The dataset consists of 439 documents published across 222 sources, indicating broad scholarly interest and multidisciplinary engagement in halal food studies. The involvement of 1,359 authors also reflects the growing global academic participation in this research area. The average co-authorship per document (3.69) and international co-authorship

rate (27.56%) demonstrate a relatively strong level of scientific collaboration, suggesting that halal food research increasingly involves cross-country and interdisciplinary partnerships. Collaborative research is essential in addressing complex halal issues related to consumer behavior, food safety, certification, and supply chain management.



Figure 2. Global Information of Halal Food Consumer Research based on Bibliometric Analysis (2016-2025)

The high number of author keywords (1193) indicates considerable thematic diversity within halal food consumer research, ranging from religiosity and purchase intention to blockchain technology and halal traceability systems. Meanwhile, the average citations per document (20.88) suggest that publications in this field have achieved meaningful academic impact. The document average age of 4.68 years further indicates that the field is relatively young but rapidly expanding. However, the negative annual growth rate (-6.26%) may reflect temporary fluctuations in publication productivity or a shift toward more specialized, technology-oriented halal research themes. Overall, the figure confirms that halal food consumer research has evolved into a dynamic and internationally connected scientific domain integrating marketing, sustainability, technology, and consumer psychology.

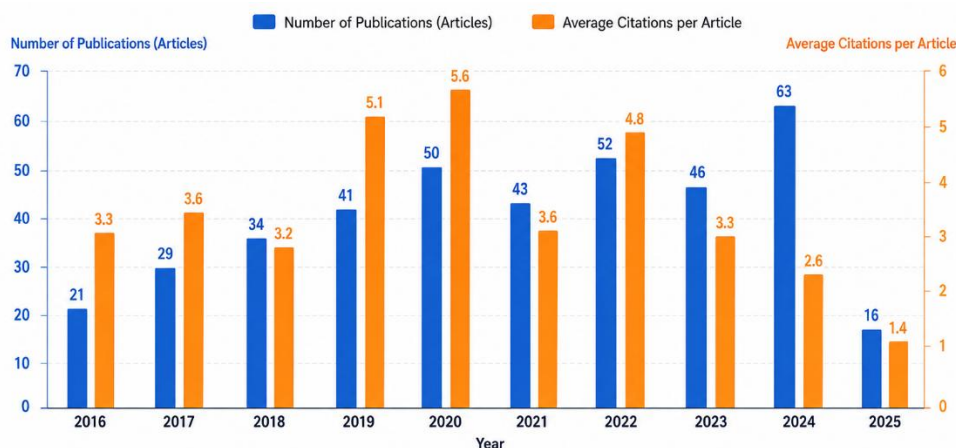


Figure 3. Number of Scientific Publications and Citation Average of Halal Food Consumer Research (2016-2025)

Based on Figure 3, the annual scientific production in halal food consumer research showed a consistent upward trend between 2016 and 2024, increasing from 21 publications in 2016 to a peak of 63 publications in 2024. This growth reflects the rising global interest in halal consumer behavior, halal certification, and sustainable halal food systems. The increasing number of studies also indicates that halal food research has expanded beyond religious perspectives toward broader issues such as trust, consumer satisfaction, food safety, and supply chain management (Soon et al., 2017).

The average citation trend demonstrates fluctuating scholarly impact across the observed years. The highest average citations per article occurred in 2020 (5.6 citations), suggesting that publications during this period received substantial academic attention. This may reflect the growing relevance of halal food security, digital traceability, and consumer trust in the post-pandemic period. However, despite the continued increase in publications after 2022, average citations per article declined. This decline likely reflects the rapid expansion of newly published studies that have not yet accumulated significant citations. Overall, the figure confirms that halal food consumer research is evolving into a dynamic and multidisciplinary scientific domain with increasing global relevance.

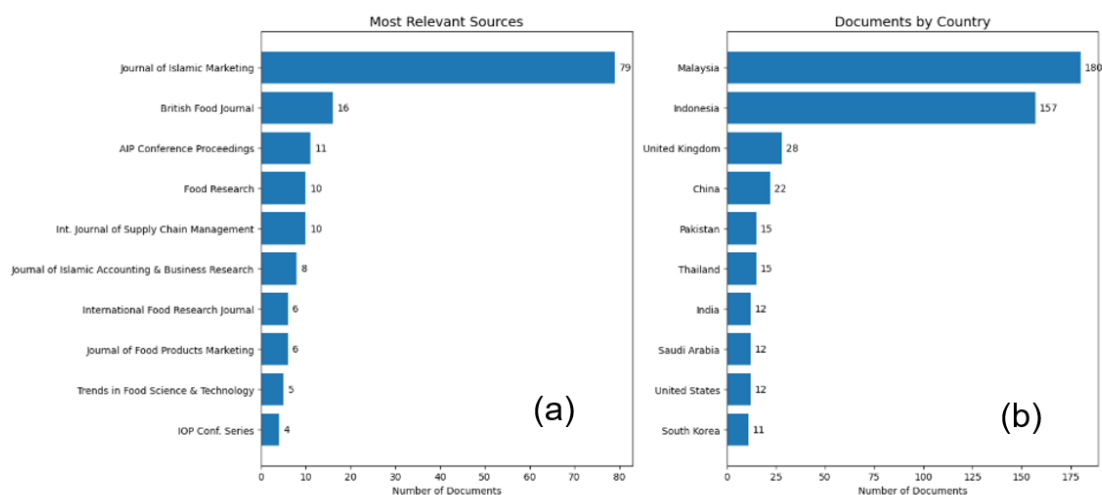


Figure 4. Global Publication Distribution in Halal Food Consumer Research (a) Most Relevant Sources of Documents (b) Document by Country

Based on Figure 4, halal food consumer research has become a globally recognized, multidisciplinary field. *Journal of Islamic Marketing* is the most influential publication source, highlighting the strong relationship between halal studies, marketing, consumer behavior, and branding. Other journals, including *British Food Journal*, also contribute to food science and supply chain discussions. Geographically, Malaysia and Indonesia dominate research productivity because of their strong halal ecosystems and government support for the halal industry. Contributions from countries such as the United Kingdom, China, and Pakistan indicate

expanding international interest. Overall, halal food consumer research continues to grow strategically in supporting sustainable global halal markets (Rejeb et al., 2021).

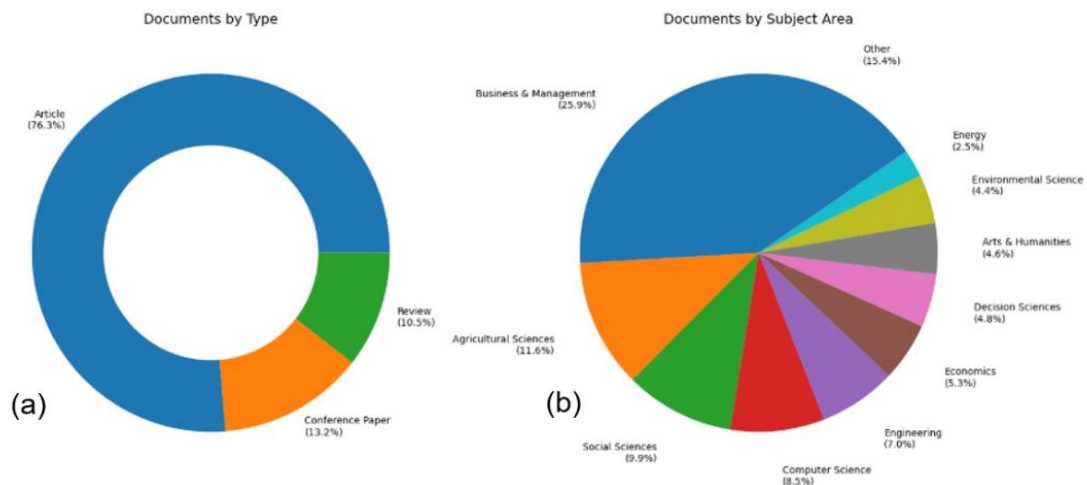


Figure 5. Publication Characteristics of Halal Food Consumer Research (a) Documents by Type
(b) Documents by Subject Area

The publication characteristics of halal food consumer research indicate that journal articles dominate the field, accounting for 76.3% of total publications (Figure 5). This dominance reflects the growing scientific maturity and credibility of halal food consumer studies, as most findings are disseminated through peer-reviewed journals. Conference papers and review articles contribute smaller proportions, indicating continuous academic discussion and knowledge development.

The subject area distribution shows that *Business, Management, and Accounting* remain the leading research categories, followed by *Agricultural Sciences*, *Social Sciences*, and *Computer Science*. This pattern confirms the multidisciplinary nature of halal food consumer research, integrating marketing, consumer behavior, food science, sustainability, and technological innovation. The increasing involvement of computer science and engineering also highlights the importance of digital technologies, traceability systems, and smart halal supply chains, demonstrating that halal food research has evolved into a globally relevant interdisciplinary scientific domain.

2. Intellectual Structure of Halal Food Consumer Research

This intellectual structure part examines the most globally cited publications, factorial analysis, and keyword co-occurrence network visualization. These approaches identify influential studies, conceptual relationships, dominant research clusters, and thematic connections that contribute to the evolution of halal food consumer research globally. This analysis helps researchers understand how scientific knowledge evolves through citation

patterns, co-citation networks, and thematic clustering, thereby revealing dominant research streams, intellectual connections, and emerging scholarly perspectives (Aria & Cuccurullo, 2017).

Based on Table 1, the top 10 most global cited journals mainly discuss the development of halal food consumer research from the perspectives of consumer behavior, halal supply chain management, technology adoption, sustainability, and halal purchasing intention. Overall, the studies show that halal food consumption is influenced not only by religious factors, but also by trust, perceived risk, product knowledge, brand perception, and consumer satisfaction. Several studies emphasize that halal integrity, traceability systems, and Internet of Things (IoT) technologies are essential to strengthen transparency and consumer confidence throughout the halal food supply chain. Other studies highlight the growing importance of sustainable food innovation, including meat alternatives, in supporting future halal food systems. In addition, psychological aspects such as self-congruity, religiosity, and social influence significantly shape halal purchase intention and loyalty.

In conclusion, the most cited studies in halal food consumer research demonstrate that the field has expanded beyond traditional religious perspectives toward broader interdisciplinary dimensions involving consumer behavior, supply chain management, digital technology, sustainability, and marketing strategies. The findings indicate that consumer trust, halal certification, traceability systems, and technological innovation play critical roles in strengthening halal food integrity and purchase intention. Furthermore, factors such as religiosity, product knowledge, self-congruity, and social influence significantly shape consumer attitudes and loyalty. Overall, these influential studies confirm that halal food consumer research continues to evolve as a dynamic and globally relevant research area that supports the development of transparent, sustainable, and consumer-oriented halal food systems.

Table 1. Top 10 Most Cited Global Halal Food Consumer Research

No	Title	Journal Name	DOI	Key Findings	Reference
1.	Status of Meat Alternatives and Their Potential Role in the Future Meat Market — A Review	Animal Bioscience	10.5713/ajas.20.0419	Meat alternatives such as plant-based meat and cultured meat have strong potential to support sustainable and halal food systems, although consumer acceptance and certification challenges remain important issues.	(Lee et al., 2020)
2.	Effect of General Risk on Trust, Satisfaction, and Recommendation Intention for Halal Food	International Journal of Hospitality Management	10.1016/j.ijhm.2018.10.017	Perceived risk negatively affects consumer trust and satisfaction, while trust significantly increases recommendation intention toward halal food products.	(Al-Ansi et al., 2019)
3.	<i>Halal Integrity in the Food Supply Chain</i>	British Food Journal	10.1108/BFJ-04-	Maintaining halal integrity across the food supply chain is	(Soon et al., 2017)

No	Title	Journal Name	DOI	Key Findings	Reference
			2016-0150	essential to ensure traceability, prevent contamination, and strengthen consumer confidence in halal products.	
4.	Integrating the Internet of Things in the Halal Food Supply Chain: A Systematic Literature Review and Research Agenda	Future Internet	10.3390/fi14010016	The study highlighted that Internet of Things (IoT) technologies improve traceability, transparency, monitoring, and halal integrity in the halal food supply chain, while also identifying technological and implementation challenges.	(Rejeb et al., 2021)
5.	Personal Intrinsic Religiosity and Product Knowledge on Halal Product Purchase Intention: Role of Halal Product Awareness	Journal of Islamic Marketing	10.1108/JIMA-11-2018-0220	Intrinsic religiosity and product knowledge positively influence consumers' intention to purchase halal products, with halal product awareness acting as an important mediating factor.	(Nurhayati & Hendar, 2019)
6.	Factors Affecting Consumers' Intention Towards Purchasing Halal Food in South Africa: A Structural Equation Modelling	Journal of Food Products Marketing	10.1080/10454446.2020.1827565	Consumer attitudes, halal certification, subjective norms, and perceived behavioral control significantly affect halal food purchase intention among consumers in South Africa.	(Bashir et al., 2019)
7.	Eleven Shades of Food Integrity: A Halal Supply Chain Perspective	Trends in Food Science & Technology	10.1016/j.tifs.2020.07.006	The study identified multiple dimensions of food integrity, including halal integrity, safety, authenticity, and sustainability, emphasizing the importance of integrated halal supply chain management to maintain consumer trust.	(Ali & Suleiman, 2018)
8.	<i>The Impact of Self-Congruity (Symbolic and Functional) on the Brand Hate: A Study Based on Self-Congruity Theory</i>	Spanish Journal of Marketing - ESIC	10.1108/SJME-03-2021-0055	In the context of halal food, symbolic and functional self-congruity influence consumer perceptions and emotional attachment toward halal brands. When halal food products fail to match consumers' religious values, lifestyle, or expected quality, negative emotions and brand rejection may increase, potentially reducing loyalty and purchase intention.	(Islam et al., 2018)
9.	Determinants of Halal Purchasing Intentions: Evidences from UK	Journal of Islamic Marketing	10.1108/JIMA-05-2020-0139	Religiosity, halal awareness, subjective norms, and trust in halal certification positively affect halal purchasing	(Elseidi, 2018)

No	Title	Journal Name	DOI	Key Findings	Reference
				intentions among consumers in the United Kingdom.	
10.	The Relationship Between Halal Traceability System Adoption and Environmental Factors on Halal Food Supply Chain Integrity in Malaysia	Journal of Islamic Marketing	10.1108/JIMA-09-2018-0167	Adoption of halal traceability systems and supportive environmental factors significantly strengthen halal food supply chain integrity, transparency, and consumer confidence in Malaysia.	(Rashid & Bojei, 2019)

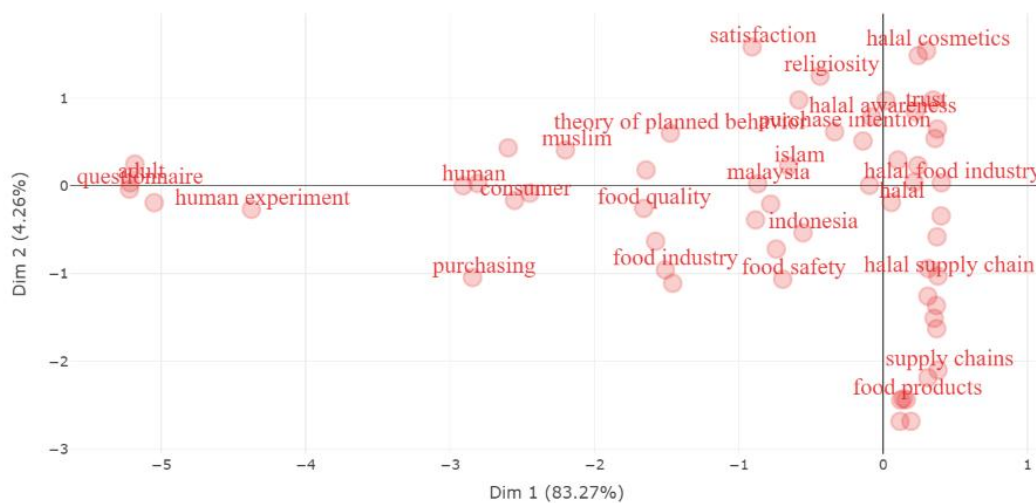


Figure 6. Factorial Analysis of Halal Food Consumer Research

According to (Aria & Cuccurullo, 2017), factorial analysis in bibliometric studies is used to identify the conceptual structure of a research field by grouping related keywords or documents based on similarity patterns. This method helps visualize thematic relationships, intellectual structures, and the proximity between research topics within scientific mapping analysis. Figure 6 reveals that halal food consumer research is dominated by interconnected themes related to religiosity, halal awareness, purchase intention, halal certification, and supply chain integrity. Keywords located near the center indicate strong conceptual relationships among consumer behavior, trust, and halal industry development. Meanwhile, terms positioned farther from the core, such as *questionnaire* and *human experiment*, represent methodological aspects rather than central research themes. The clustering pattern demonstrates that halal food consumer research has evolved into a multidisciplinary field integrating consumer psychology, marketing, food safety, and halal supply chain studies

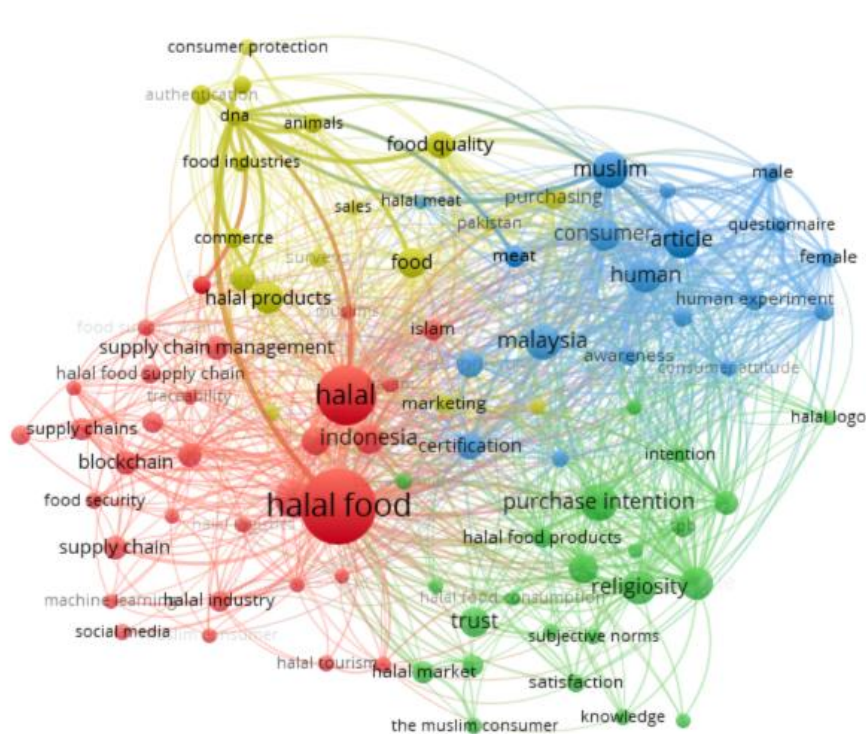


Figure 7. Network Visualization of Keyword Co-occurrence in Halal Food Consumer Research

Figure 7 shows that halal food consumer research is strongly influenced by behavioral and psychological factors related to purchasing decisions. Keywords such as *purchase intention*, *trust*, *religiosity*, and *awareness* dominate the network, highlighting the importance of consumer behavior in halal food studies. The visualization identifies four major thematic clusters representing the intellectual structure of the field. The red cluster focuses on halal food, supply chain, blockchain, and Indonesia, emphasizing halal industry management, traceability, and food security. Blockchain technology has been increasingly discussed as a tool to improve halal transparency and consumer trust (Ali et al., 2021). The green cluster centers on purchase intention, trust, religiosity, and satisfaction, reflecting the dominant application of the Theory of Planned Behavior in explaining halal purchasing behavior (Elseidi, 2018).

The blue cluster highlights consumer awareness, Muslim consumers, and survey-based empirical studies, particularly in Malaysia, which remains a major research hub. Meanwhile, the yellow cluster focuses on food quality, halal meat, DNA, and consumer protection, indicating the growing integration of food science and halal authentication technologies. Overall, the network demonstrates that halal food consumer research is increasingly interdisciplinary, integrating marketing, behavioral science, technology, and food quality assurance.

3. Emerging Themes and Research Evolution

The following discussion explores emerging themes and the research evolution of halal food consumer studies through bibliometric visualization approaches. The analysis includes trend topics, thematic mapping, overlay visualization, and density visualization. These methods

reveal shifting research interests, thematic development, keyword relationships, and emerging research hotspots that shape the future direction of halal food consumer research globally.

Based on Figure 8, trend topics analysis demonstrates a significant evolution in halal food consumer research between 2016 and 2025. Early studies, particularly from 2016 to 2018, mainly focused on foundational themes such as *Muslims*, *haram*, *surveys*, *consumer attitude*, and *Islam*. These topics indicate that initial halal food research concentrated on religious identity, consumer perceptions, and basic purchasing behavior. Around 2019–2021, the research focus shifted toward broader behavioral and market-oriented themes, including *purchase intention*, *consumer behavior*, *halal food*, *Malaysia*, and *trust*. This transition reflects the increasing application of behavioral theories such as the Theory of Planned Behavior in explaining halal food purchasing decisions (Alam & Sayuti, 2011). Furthermore, the study emphasized that attitude, subjective norms, and perceived behavioral control are important predictors influencing consumers' intention to purchase halal food products, highlighting the growing importance of psychological and behavioral dimensions in halal consumer research.

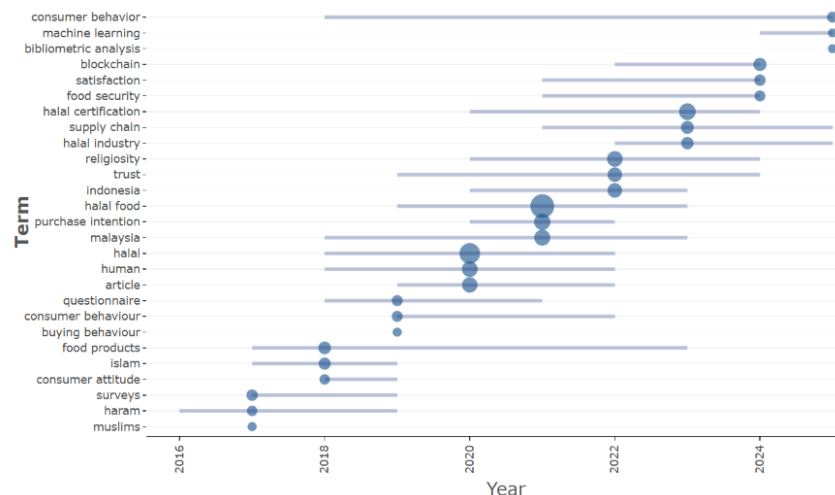


Figure 8. Trend Topics in Halal Food Consumer Research

From 2022 onward, halal food consumer research began to incorporate more advanced and interdisciplinary themes, including blockchain, machine learning, food security, supply chains, and bibliometric analysis. The emergence of these topics indicates increasing scholarly attention toward digital traceability, transparency, and sustainability within halal food systems (Rejeb et al., 2021). This development reflects the growing integration of technology-driven approaches to strengthen halal assurance and consumer trust in global halal markets.

The rising prominence of blockchain, artificial intelligence, consumer behavior, and satisfaction also suggests that halal food research is evolving beyond traditional religiosity-based perspectives toward digitally integrated and consumer-oriented halal ecosystems. This shift was likely accelerated by increasing concerns regarding halal authenticity, food traceability, and

transparency in the post-pandemic global food industry, aligning halal research more closely with Industry 4.0 and sustainable food governance frameworks.

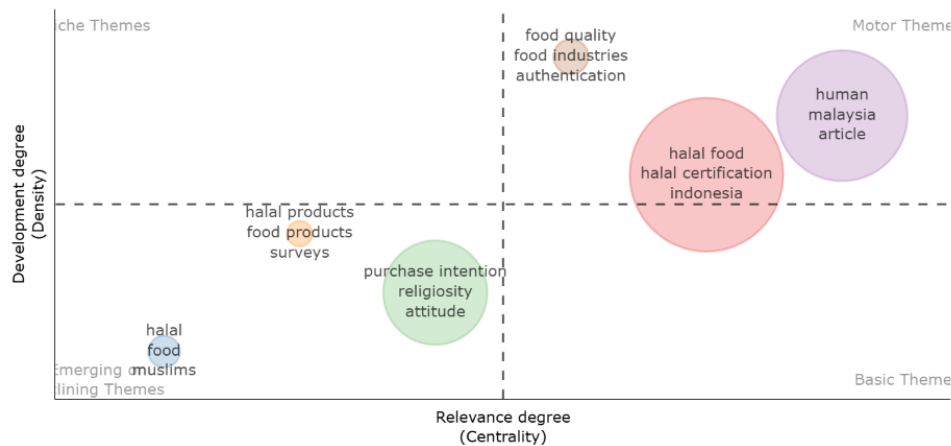


Figure 9. Thematic Map of Halal Food Consumer Research

This thematic map (Figure 9) utilizes Callon's centrality (relevance degree) and density (development degree) to categorize halal food research into four distinct quadrants, establishing a strategic roadmap of the field (Aria & Cuccurullo, 2017). Motor Themes (Top-Right) quadrant signifies highly developed and foundational themes. Clusters involving human, Malaysia, article, and food quality, food industries, and authentication dominate this space. This indicates that operational standardization, analytical authentication methods, and empirical studies in Malaysia are well-established driving forces in this research area.

Meanwhile, Basic Themes (Bottom-Right) consist of a large cluster of halal food, halal certification, and Indonesia transitions between motor and basic themes. Positioned with high centrality, it represents a crucial pillar of the literature, highlighting that certification frameworks and market dynamics in Indonesia are vital to the broader research field, even if some operational aspects require further technical development. The last, Emerging or Declining Themes (Bottom-Left) clusters consist of purchase intention, religiosity, attitude and halal, food, muslims exhibit low centrality and density. While behavioral models are widely used, their position suggests they either represent saturated, declining conceptual structures or basic elements that have not yet achieved high structural density within this specific bibliometric network.

In conclusion, the mapping shows a clear thematic pivot from foundational behavioral intentions toward highly developed operational metrics, authentication, and certification strategies. The thematic shift highlights a transition from traditional behavioral intents (*purchase intention, religiosity*) in the emerging / declining quadrant toward mature *motor themes*. Academic discourse has moved beyond questioning *why* consumers buy halal, pivoting toward *how* to secure product integrity through industrial standardization, authentication technologies, and robust certification policies in key markets like Malaysia and Indonesia. Although purchase intention and religiosity remain widely studied variables, their placement within the emerging or declining quadrant may indicate conceptual saturation. This suggests that future halal food

consumer studies should move beyond repetitive behavioral intention models and incorporate more complex dimensions such as digital trust, sustainability perception, emotional engagement, and AI-assisted halal consumption behavior

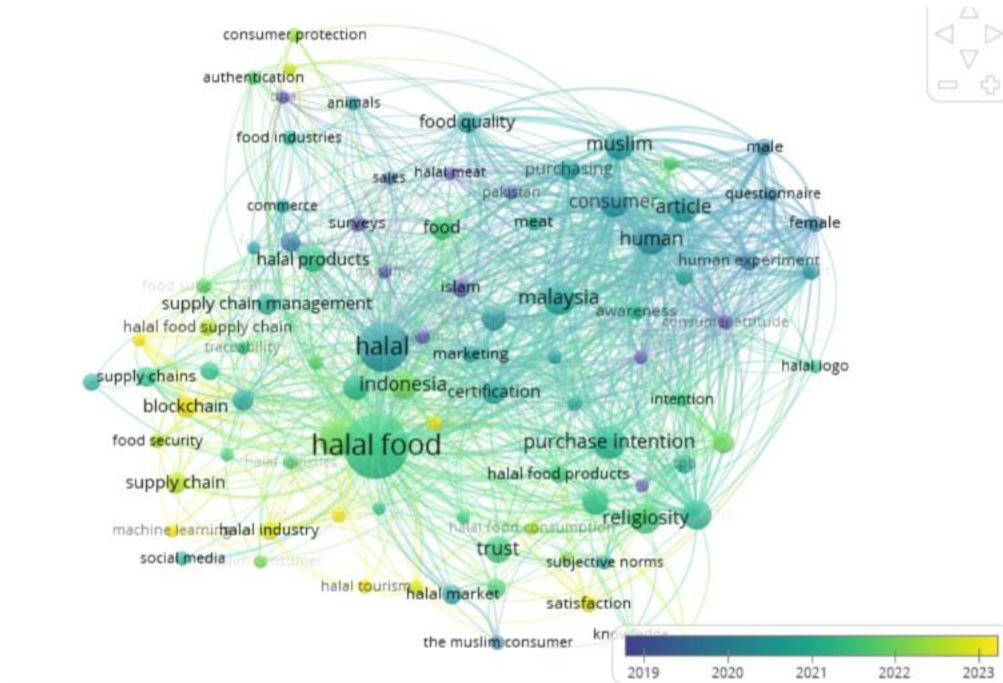
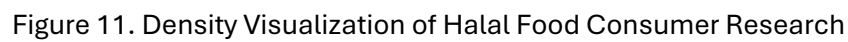


Figure 10. Overlay Visualization of Halal Food Consumer Research

The overlay visualization (Figure 10) illustrates the temporal evolution of halal food consumer research between 2019 and 2023. Earlier studies mainly focused on religiosity, trust, halal certification, and purchase intention, indicating the dominance of behavioral perspectives in halal consumption research (Elseidi, 2018). In contrast, more recent themes, represented by yellow nodes, include blockchain, food security, supply chains, social media, and consumer protection. These emerging topics reflect increasing scholarly interest in digital traceability, technological transparency, and sustainable halal ecosystems (Ali et al., 2021).

Indonesia and Malaysia remain central contributors within the research network, highlighting Southeast Asia's strategic role in global halal market development. Overall, the overlay visualization demonstrates that halal food consumer research is becoming increasingly interdisciplinary through the integration of consumer behavior, digital technology, and supply chain transparency.



The visualization also highlights strong contributions from Indonesia and Malaysia, reflecting Southeast Asia's strategic role in global halal research and market development. In addition, keywords such as certification, awareness, and subjective norms demonstrate that halal certification and social influence continue to shape consumer attitudes and purchasing decisions. Emerging themes including blockchain, traceability, and social media appear in lower-density areas, suggesting growing scholarly interest in digital transparency, technological credibility, and sustainable halal ecosystems. Overall, the density map indicates that halal food consumer research is progressively expanding from traditional religious concerns toward more technology-oriented and interdisciplinary perspectives.

Future research in halal food consumer studies should focus on the integration of digital technology, sustainability, and consumer-centered innovation within the global halal ecosystem. Emerging topics such as artificial intelligence, blockchain-based traceability, smart halal supply chains, and digital halal marketing require further empirical investigation. Future studies should also explore sustainable halal consumption behavior, green halal products, and the influence of social media and digital platforms on consumer trust and loyalty. In addition, comparative cross-country studies involving Muslim and non-Muslim consumers are important to better understand global halal market dynamics and strengthen the competitiveness of the international halal food industry. Future Research Roadmap in Halal Food Consumer Research Based on Bibliometric Findings (2016–2025) can be seen in Figure 11.

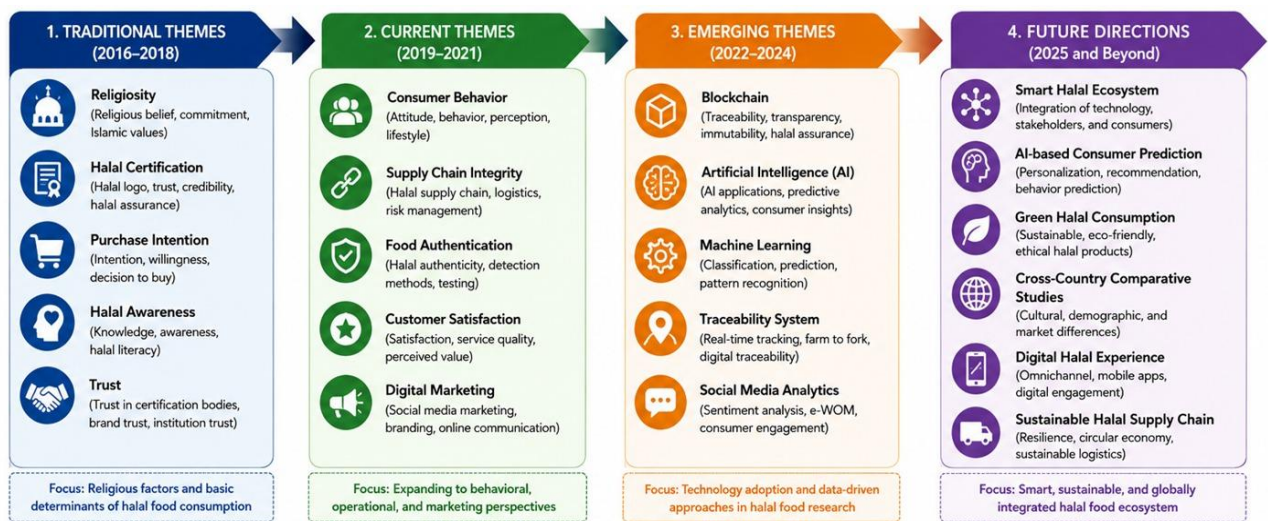


Figure 12. Future Research Roadmap for Halal Food Consumer Research 2016–2025 based on bibliometric findings.

The figure illustrates the evolutionary trajectory of halal food consumer research from traditional perspectives to future-oriented research directions. During 2016–2018, the field was mainly dominated by traditional themes, including religiosity, halal certification, purchase intention, halal awareness, and trust. These themes indicate that early studies largely emphasized religious commitment, consumer knowledge, and basic determinants of halal food consumption. In 2019–2021, the research focus expanded toward current themes, such as consumer behavior, supply chain integrity, food authentication, customer satisfaction, and digital marketing. This shift reflects broader attention to operational, behavioral, and market-driven aspects of halal food systems. From 2022–2024, emerging themes became increasingly technology-oriented, including blockchain, artificial intelligence, machine learning, traceability systems, and social media analytics. These topics demonstrate the growing role of data-driven approaches in enhancing halal assurance, transparency, and consumer engagement. For 2025 and beyond, the figure projects future directions centered on smart halal ecosystems, AI-based consumer prediction, green halal consumption, cross-country comparative studies, digital halal experiences, and sustainable halal supply chains. Overall, the figure shows that halal food consumer research has evolved from religion-based consumption studies into an interdisciplinary field integrating technology, sustainability, global market dynamics, and consumer-centered innovation.

CONCLUSIONS

This bibliometric study shows that halal food consumer research has grown into a multidisciplinary and globally relevant field. The literature is dominated by themes related to purchase intention, religiosity, trust, halal certification, and consumer behavior, with Malaysia and Indonesia emerging as leading contributors. The findings also show growing attention to blockchain, digital traceability, sustainable halal food systems, and technology-driven halal ecosystems. Overall, halal food consumer research has evolved beyond religious perspectives

into broader discussions involving marketing, sustainability, technology, and supply chain management. Future studies should focus on artificial intelligence, digital halal marketing, sustainable consumption, and comparative international halal consumer behavior research.

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REFERENCES

- Alam, S. A., & Sayuti, N. M. (2011). Applying the Theory of Planned Behavior (TPB) in halal food purchasing. *International Journal of Commerce and Management*, 21(1), 8–20. <https://doi.org/10.1108/10569211111111676>
- Al-Ansi, A., Olya, H. G. T., & Han, H. (2019). Effect of general risk on trust, satisfaction, and recommendation intention for halal food. *International Journal of Hospitality Management*, 83, 210–219. <https://doi.org/10.1016/j.ijhm.2018.10.017>
- Ali, M. H., Chung, L., Kumar, A., Zailani, S., & Tan, K. H. (2021). A sustainable Blockchain framework for the halal food supply chain: Lessons from Malaysia. *Technological Forecasting and Social Change*, 170. <https://doi.org/10.1016/j.techfore.2021.120870>
- Ali, M. H., & Suleiman, N. (2018). Eleven shades of food integrity: A halal supply chain perspective. *Trends in Food Science & Technology*, 71, 216–224. <https://doi.org/https://doi.org/10.1016/j.tifs.2017.11.016>
- Aria, M., & Cuccurullo, C. (2017). Bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959–975. <https://doi.org/10.1016/j.joi.2017.08.007>
- Bashir, A. M., Bayat, A., Olutuase, S. O., & Abdul Latiff, Z. A. (2019). Factors affecting consumers' intention towards purchasing halal food in South Africa: a structural equation modelling. *Journal of Food Products Marketing*, 25(1), 26–48. <https://doi.org/10.1080/10454446.2018.1452813>
- Djakasaputra, A., Juliana, Aditi, B., Fachrurazi, & Mas'ad, M. A. (2023). The Influence of Halal Certification, Halal Awareness, and Brand Image on Interest in Buying Halal Food Products: An Empirical Study of Consumers in Indonesia. *International Journal of Islamic Business and Economics (IJIBEC)*, 7(2), 103–115. <https://doi.org/10.28918/ijibec.v7i2.2003>
- Elseidi, R. I. (2018). Determinants of halal purchasing intentions: evidences from UK. *Journal of Islamic Marketing*, 9(1), 167–190. <https://doi.org/10.1108/JIMA-02-2016-0013>
- Islam, T., Attiq, S., Hameed, Z., Khokhar, M. N., & Sheikh, Z. (2018). The impact of self-congruity (symbolic and functional) on the brand hate: A study based on self-congruity theory. *British Food Journal*, 121(1), 71–88. <https://doi.org/10.1108/BFJ-03-2018-0206>
- Kamil, A., Ayuni Mohd Hatta, F., Hafizah Mohd Nor, N., & Ghafar Ismail, A. (2025). Global Halal Standards and Competitiveness in The Halal Food Industry: A Systematic Review and

- Bibliometric Analysis. *Global Journal Al-Thaqafah*, (Special Issue Nov 2025), 45–60. <http://jurnal.usas.edu.my/gjat/index.php/journal>
- Kirby, A. (2023). Exploratory Bibliometrics: Using VOSviewer as a Preliminary Research Tool. *Publications*, 11(1). <https://doi.org/10.3390/publications11010010>
- Lee, H. J., Yong, H. I., Kim, M., Choi, Y. S., & Jo, C. (2020). Status of meat alternatives and their potential role in the future meat market - A review. In *Asian-Australasian Journal of Animal Sciences* (Vol. 33, Number 10, pp. 1533–1543). Asian-Australasian Association of Animal Production Societies. <https://doi.org/10.5713/ajas.20.0419>
- Nurhayati, T., & Hendar, H. (2019). Personal intrinsic religiosity and product knowledge on halal product purchase intention: Role of halal product awareness. *Journal of Islamic Marketing*, 11(3), 603–620. <https://doi.org/10.1108/JIMA-11-2018-0220>
- Paul, J., Lim, W. M., O’Cass, A., Hao, A. W., & Bresciani, S. (2021). Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR). *International Journal of Consumer Studies*. <https://doi.org/10.1111/ijcs.12695>
- Rashid, N. A., & Bojei, J. (2019). The relationship between halal traceability system adoption and environmental factors on halal food supply chain integrity in Malaysia. *Journal of Islamic Marketing*, 11(1), 117–142. <https://doi.org/10.1108/JIMA-01-2018-0016>
- Rejeb, A., Rejeb, K., Zailani, S., Treiblmaier, H., & Hand, K. J. (2021). Integrating the Internet of Things in the halal food supply chain: A systematic literature review and research agenda. In *Internet of Things (Netherlands)* (Vol. 13). Elsevier B.V. <https://doi.org/10.1016/j.iot.2021.100361>
- Shamsudin, S. N., Bakar, E. A., Osman, S., Mohd Dali, N. R. S., & Anuar Musaddad, N. (2022). Research Trend in Halal: A Bibliometric Analysis Using the Scopus Database. *JOURNAL OF HALAL INDUSTRY & SERVICES*, 5(1). <https://doi.org/10.36877/jhis.a0000300>
- Soon, J. M., Chandia, M., & Regenstien, J. Mac. (2017). Halal integrity in the food supply chain. *British Food Journal*, 119(1), 39–51. <https://doi.org/10.1108/BFJ-04-2016-0150>

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