



Sentiment analysis of halal food trends during COVID-19

Nadia Nurul Izza¹*Mia Sari¹, Mughnii Kahila Shanty¹

^{1,2,3}Tazkia Islamic University College

ARTICLE INFO

Article history:

Received: 2022-09-02

Revised: 2022-12-01

Accepted: 2022-12-25

Keywords:

Halal food; covid-

19; SDGs;

sentiment analysis;

scent strength

ABSTRACT

Due to the pandemic of Corona Virus Disease (Covid-19), consumer awareness of halal products has increased. In this context, the government is also attempting to raise public knowledge about halal and thoyib products' growth and the halal industry's present trend. This study aims to ascertain public sentiment regarding halal food throughout the last four years, from 2019 to 2022. The method combines descriptive statistical analysis, meta-analysis, and sentiment analysis using secondary data in the form of metadata from 88 Scopus-indexed articles, then processed using Microsoft Excel 2019 and Senti Strength. This study discovered that the trend toward healthy halal food continued to grow throughout the pandemic, and the halal product market maintained a good performance. With the growth of the halal industry in the halal food and beverage sector, it is hoped that it will become a strong advocate for the SDGs, particularly the third goal, which aims to ensure a healthy life and promote prosperity while also assisting economic growth through the strengthening of the halal value chain, which is the primary strategy for accelerating sharia economic growth.

Akibat pandemi Corona Virus Disease (COVID-19), kesadaran konsumen terhadap produk halal meningkat. Dalam konteks ini, pemerintah juga berupaya meningkatkan pengetahuan masyarakat tentang pertumbuhan produk halal dan thoyib serta tren industri halal saat ini. Penelitian ini bertujuan untuk memastikan sentimen masyarakat terkait makanan halal selama empat tahun terakhir, dari 2019 hingga 2022. Metode ini menggabungkan analisis statistik deskriptif, meta-analisis, dan analisis sentimen menggunakan data sekunder berupa metadata dari 88 artikel terindeks Scopus, kemudian diolah menggunakan Microsoft Excel 2019 dan Senti Strength. Studi ini menemukan bahwa tren makanan halal yang sehat terus tumbuh selama pandemi, dan pasar produk halal mempertahankan kinerja yang baik. Dengan tumbuhnya industri halal di sektor makanan dan minuman halal, diharapkan akan menjadi advokat yang kuat terhadap SDGs, khususnya tujuan ketiga, yang bertujuan untuk menjamin kehidupan yang sehat dan mendorong kesejahteraan sekaligus membantu pertumbuhan ekonomi melalui penguatan rantai nilai halal, yang merupakan strategi utama percepatan pertumbuhan ekonomi syariah.

How to cite:

Izza, N. N., Sari, M., & Shanty, M. K. (2022). Sentiment Analysis of Halal Food Trends During Covid-19. Indonesian Journal of Islamic Economics Research, 4(2), 64-75. DOI: <https://doi.org/10.18326/ijer.v4i2.7869>

* Corresponding Author. nadian.izza31@gmail.com

1. Introduction

The halal lifestyle has become a trend for all Muslims in all corners of the world. The halal lifestyle is a lifestyle that directs the perpetrators to be moral and objective culture. In Arabic, halal generally means "permissible" and refers to activities permitted under sharia regulations for consumption, use, and worship (Akin, 2021; Aziz et al., 2015). In short, halal, motivated by principles, integrity, and trust, pervades every part of a Muslim's life (Vanany et al., 2019). Sharia teaches and controls human behavior in personal and social situations (Anas et al., 2010). Among Muslims, halal food has become an aspect of the halal lifestyle.

Muslims consume or drink Halal food based on Islamic Law, which stipulates what is legal and how to cook it (halal means proper and permissible). Allah commands His people through the Qur'an to consume halal and good food and forbids certain commodities that are forbidden (forbidden or forbidden to be consumed), such as pork, blood, and corpses. As a result, the halal food sector has become one of the broadest religious principles globally, with millions of consumers every day (Nurfajri, 2018).

The pandemic has increased consumer awareness of halal products, ranging from food, beverage, and travel products to cosmetics (Skachilova et al., 2021). Who is was also conveyed by the Head of the Indonesian Halal Lifestyle Center, Saptar Nirwandar, who said that during the COVID-19 pandemic, halal had become a trend in healthy living culture. The trend of halal food continues to increase and develop because it is considered to increase immunity. Many halal food restaurants are opened as healthy organic food in Korea, as well as in Japan and Taiwan. European countries are also included and believe halal is a healthy brand (Kemenkeu RI, 2021). Considering the origin of the discovery of this virus in non-halal animals such as bats that are consumed by people in China and eventually caused the spread of COVID-19 in the world, advice on Islamic nutrition and health, especially halal food and health care, need more attention, including throughout the world (Farnoosh, 2020; Haqqoni et al., 2020).

Furthermore, during the COVID-19 pandemic, the halal product industry players continue to show positive performance. In current world economic pressures, the halal product industry even recorded a growth of 3.2 percent or above the world economic growth in 2019 of 2.3 percent. From this data, the demand for domestic and global markets opens up opportunities for Indonesia. Furthermore, the Indonesia Halal Economy Report & Roadmap Strategy Indonesia 2018-2019 reports that domestic spending in 2017 for the specification of halal economic products and services reached USD 218.8 billion and will continue to grow to USD 330.5 billion in 2025 (Kemenkeu RI, 2021).

Indonesia is known as a country with a large population worldwide, which is also an opportunity to increase the halal food sector halal industry. Based on the Global Islamic Economy Report 2018-2019, the country with the largest population following the Islamic faith is held by Indonesia, amounting to 87.18% of 232.5 million people (Bappenas, 2018). With the most significant number of Muslims in the world, Indonesia also has great potential to drive the sharia economy and develop the halal industry through a halal and healthy lifestyle. In this case, awareness and literacy in choosing hygienic and halal food must continue to increase among Indonesia's Muslim community.

Quoted from CrescentRating HalalTrip Founder & CEO Fazal Bahardeen in the Halal Lifestyle Report, Indonesia's domestic halal food market is estimated to reach Rp 1,000 trillion. With the economic recovery, this sector will continue to provide great opportunities to accelerate recovery in the short to medium term, especially the post-Covid-19 domestic market potential potential (Crescentrating & KNEKS, 2021). The State of the Global Islamic Economy (SGIE) also noted that

Indonesia was ranked second in the world for the halal food sector. Thus, the global market must respond aggressively to needs, preferences, unique market orientations and values, and the trading economy. Industry players must take advantage of this potential, especially food producers and investors (Shah Alam & Mohamed Sayuti, 2011).

To manifest Indonesia's prophecy as the world's halal mecca for advancing national economic rehabilitation, several procedures have been prepared by the state, including market exploration, infrastructure expansion, and product renewal, the inauguration of fatwas, regulation and governance, consolidation of the halal value chain, MSME mobilization, development, digital economy, and human resource literacy research (Coordinating Ministry of Economy, 2021).

In order to achieve this vision, strengthening legal aspects and coordination must support the expansion of the halal food and beverage industry, the role of certification, awareness and halal food, halal food production, and quality, and the halal food supply chain (Secinaro & Calandra, 2021).

With halal items being the foundation of most consumer demand, incorrect halal brand certification in food products should also be of particular concern (Lubis et al., 2016). Arbitrary business practices are becoming more common in consumer packaged goods. While consumers have the right to be protected from such tactics, urbanization, and industrialization, have increased the distance between producers and consumers, raising significant concerns. The operational complexity associated with halal certification severely threatens consumer packaged goods' integrity (Premanandh, Jagadeesan Bin Salem, 2017). As a result, determining the halal status will be difficult because our senses cannot identify it (Salahudin et al., 2018). To quickly validate the authenticity of halal food products, a scientific approach is needed to screen halal food that is sensitive, easy to use, and reliable (Lubis et al., 2016).

Currently, the government is working on three areas for the development of the halal industry: infrastructure development, building a halal assurance system, and expanding the contribution of halal to the trade balance. In addition, Indonesia's halal business is predicted to grow (Ministry of Finance, 2021).

Increased public awareness of food quality and safety has resulted in rapid improvements in halal product authentication, including manufacturing processes, processing techniques, identifying undeclared ingredients, and species substitution in halal foods. Extensive studies of analytical methodologies are needed to produce precise and reliable results for monitoring and managing the authenticity of halal food (Rohman & Fadzillah, 2018).

Furthermore, the formulation of strict regulations monitoring industrial performance is an effort to consolidate legal aspects and coordination. The government regulation related to BPJPH is one of the most critical regulations and impacts the halal industry's development. In improving the performance and role of the halal food and beverage industry, the legitimate operation of BPJPH can encourage increased certification for MSMEs (Small and Medium Enterprises Units) and industrial companies (Bappenas, 2018).

In realizing these points, Head of the Halal Product Assurance Agency (BPJPH) Muhammad Aqil Irham, BPJPH continues to seek halal certificates for food and beverage products with 10 million products. One form of its efforts is communication, publication, socialization, and education to all stakeholders. Even now, the Director General of Customs, LNSW, KNEKS, and BPJPH, integrated information systems for halal products, are also increasingly planning to record export activities and halal imports. In addition, digital transformation (codification and digitalization of halal certificates) is another effort made by BPJPH to improve halal certification services, as well as online-based capacity-building counseling to support the goal of halal certification and the

development of a halal information system (Sihalal) that collaborates with all procedures and programs. Halal has been integrated with the halal market, applications, and electronic money providers. With this collaboration, it is hoped that Indonesian halal products will continue to precede the rankings of other countries to become the first winner in 2024.

During this pandemic, the halal culinary industry in Indonesia has also significantly transformed with the adoption of digital technology, such as food delivery services that help businesses survive. In addition, with the increasing popularity of fintech in Indonesia, it is easier to make unlimited transactions through online banking and contactless payment methods using credit cards and e-wallets. The platform can be easily implemented with the increasing internet penetration in Indonesia. Thus, this becomes a challenge and an opportunity for the halal food industry players in the future to adopt this trend because it only leads to a win-win situation. Not only can it provide security guarantees to consumers, but these transactions are also a convenient way to track their progress in business (Crescentrating & KNEKS, 2021).

There is a high demand for measures to help Muslims with religious obligations to ensure that the products they consume and use are halal. Hand in hand, formal halal certification, and technology that can verify and support these certifications will ensure compliance with Islamic Law and result in better trust among consumers (Lubis et al., 2016). In addition, it can maximize the welfare of the food industry so that it is more optimal in realizing welfare and health, especially in the era of the Covid-19 pandemic, where most countries in the world are affected, especially in the health and economic fields. Finally, with the increase in the halal food and beverage industry sector, it is hoped that it can become one of the relevant supporters for Indonesia in realizing the SDGs (Sustainable Development Goals), especially in the third goal, namely increasing prosperity and peace and ensuring a healthy life, helping economic growth by strengthening the halal value chain which is the primary strategy for accelerating sharia economic growth.

Based on this background, the researcher wanted to see the sentiment toward halal food during the pandemic. Several researchers have previously researched halal food (Bashir, 2020; Giyanti, 2020; Secinaro & Calandra, 2021; Wahyuni, 2019), but there has been no research on sentiment against this theme based on the literature on the theme of halal food during covid-19 in the last four years from 2019 to 2022.

As a result, the remainder of this paper is organized as follows. Section 1 summarizes the literature on halal food. Section 2 details the procedure. Section 3 contains the study's results and discussion. Finally, section 4 summarizes conclusions and recommendations.

2. Research Method

This study uses Scopus metadata to analyze data from research articles published in journals on halal food for four years, starting in 2019 to 2022. The methodology used is a qualitative approach combined with descriptive statistics for 88 articles on halal food in this research. According to Yusuf (2017), qualitative deepening is an investigation scheme concerned with extracting meaning, characteristics, symptoms, understanding, concepts, symbols, and descriptions of a phenomenon, using several methods, and presenting narratively. On the other hand, it is the process of seeking, collecting, analyzing, and interpreting extensive visual and narrative data to better understand a phenomenon or topic of interest. Qualitative research is descriptive; specifically, statistics investigates the methods of collecting, compiling, and presenting research data in summary form. Data must be consistently and acceptably summarized in tables, graphs, or graphic presentations to serve as a basis for various assessments.

After that, we developed our study framework, as illustrated in Figure 1, which details the approach used to conduct sentiment analysis on scientific articles on halal food. Sentiment analysis or opinion development is used to identify public sentiment on a particular issue. In its simplest form, text analysis is meant to process words, not numbers. Subjectivity categorization, detection orientation, holder opinion, and target identification are the three subprocesses of sentiment analysis. Due to the many tools and materials available in English, most sentiment analysis research has been conducted in that language. Two frequently used sources for sentiment analysis are SentiWordNet and WordNet. The fundamental purpose of sentiment analysis is to sort out the polarity of the text at the document, phrase, or feature and aspect level and identify whether the opinions represented in documents, sentences, and feature entities are positive, negative, or neutral.

In addition, the results of sentiment reviews can be expressed sentimentally as sad, happy, or angry to create research that can guide the formation of perspectives on specific themes (Rusydia & Marlina, 2020). Scopus-indexed metadata was used in selecting the database with the keywords "halal food" from 2019 to 2022. In addition, Microsoft Excel 2019 was used to calculate sentiment maps for halal food research, and researchers used SentiStrength software, which is commonly used in sentiment analysis research. Subsequently, a meta-analysis was used to evaluate the impact of the selected research domains and review, among others, the authors, affiliations, and classifications of journals on halal food research worldwide. According to Kore et al. (2021), bibliometric analysis can be performed on statistical data from scientific articles and other publications retrieved from repositories. VOSviewer, developed by Nees Jan van Eck and Ludo Waltman, is a tool used in meta-analysis to visualize the authors and sources of articles related to the theme of halal food.

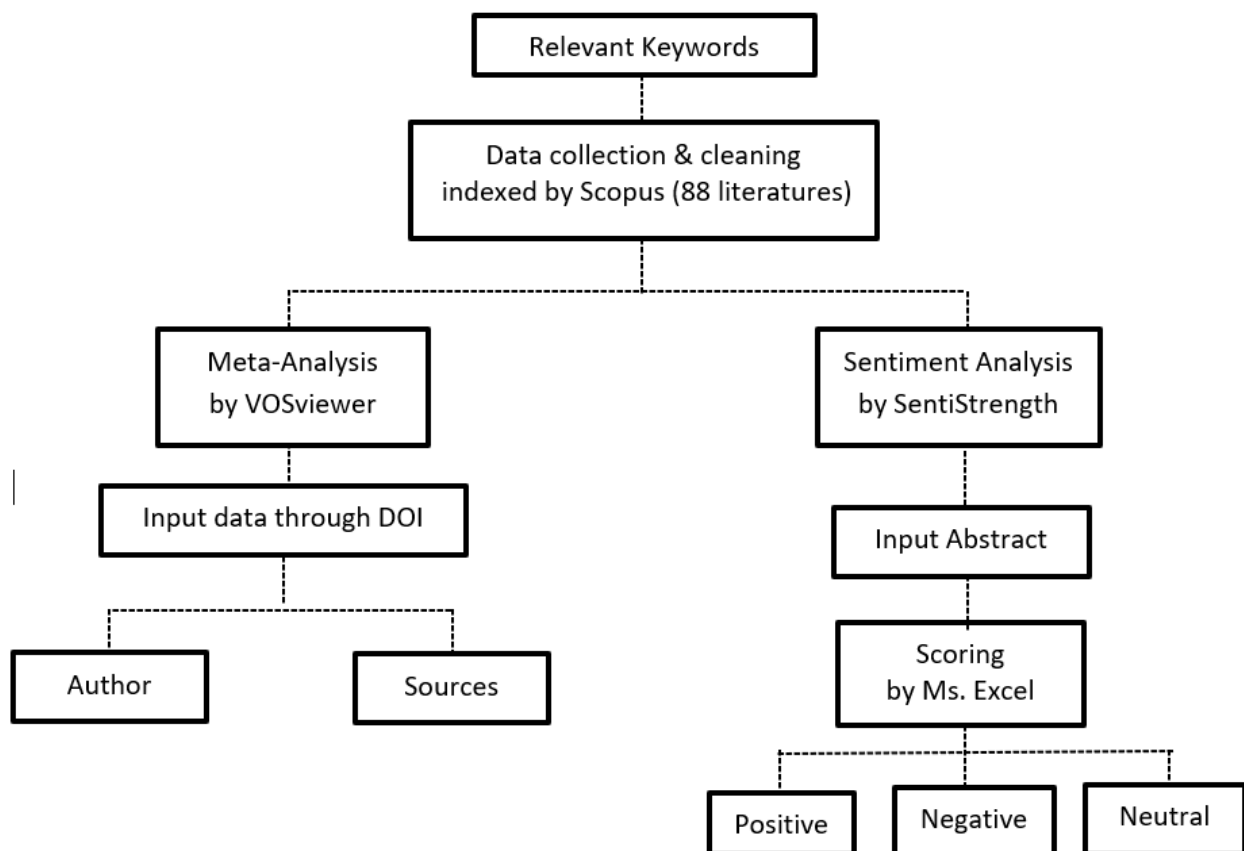


Figure 1. Methodology for Sentiment Analysis

3. Result and Discussion

Meta-Analysis

Figure 1 shows the number of halal food-themed papers published by national and international journals indexed by Scopus. There were 88 articles published in the last 4-year observation period from 2019 to 2022, with 4 to 43 articles. The most published publications with halal food in 2020 were 43 articles. In contrast, the smallest number of publications occurred in 2022, with four articles, and only covered part of the whole, considering that the data collection was carried out in April 2022.

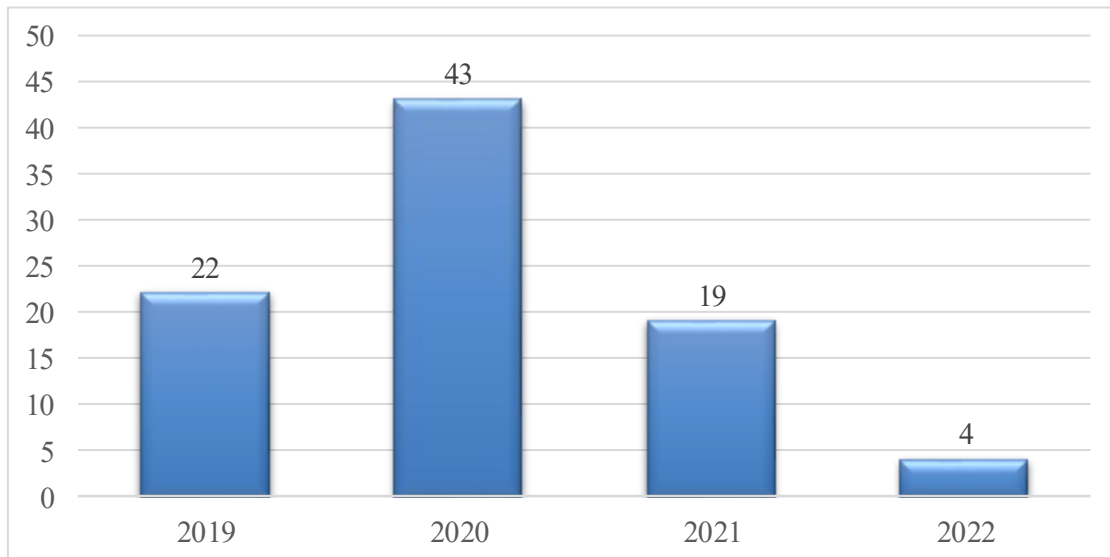


Figure 2. Number of Publications per Year

Furthermore, this section describes the publication of papers based on journals that include various national and international journals indexed by Scopus. Of the 88 studies, research with the theme of halal food is contained in the journals below:

Table 2. Classification of Journals

Focus Study	Total
Journal of Islamic Marketing	35
Trends in Food Science and Technology	3
Journal of Foodservice Business Research	2
Journal of Food Products Marketing	2
IOP Conference Series: Earth and Environmental Science	2
Journal of International Consumer Marketing	1

The table above shows a disparity trend in journal contributions to articles discussing halal food. Multidisciplinary topics such as marketing, business, service, management, environment, hospitality, and tourism are all research areas interested in discussing halal food. Thus, various journals with various disciplines are presented in our data sets, such as the Journal of Islamic Marketing, Trends in Food Science and Technology, Foodservice Business Research, Food Product Marketing, and International Consumer Marketing. However, it is possible that the number of articles still possible to change and increase along with the development of science and the increasing trend of halal food in the research world.

Table 3. Most Published Authors

Author	Number of Publications
Suhaiza Zailani	6
Mohammad Iranmanesh	3
Heesup Han	3

Iwan vanany	3
Muhammad M. Mostafa	3

Table 3. shows the five most prolific authors of articles published on the theme of halal food in the last four years. Suhaiza Zailani is the author with the most publications, with six publications, followed by Mohammad Iranmanesh, Heesup Han, Iwan Vanany, and Mohammed M. Mostafa, with three publications.

One of the articles written by [Zailani et al. \(2020\)](#) is entitled "*The influence of halal orientation strategy on the financial performance of halal food firms: Halal culture as a moderator.*" This article discusses the vital function of the Halal Orientation Strategy (HOS) in ensuring the halal designation of a product. Since HOS affects the financial performance of a halal business, it is necessary to examine the effect of HOS on the financial performance of a halal food business by using halal culture as a moderator, namely how halal culture modifies the relationship between the manufacturing process and business financial performance. This study finds that while halal ingredients and halal storage and transportation have a beneficial influence on financial performance, halal manufacturing methods have a negative effect.

Table 4. Publication of Most Quotes

Citation	Paper Name	Year
69	Understanding the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease (COVID-19) based on available evidence - A narrative review	2020
66	Effect of general risk on trust, satisfaction, and recommendation intention for Halal Food	2019
56	Factors affecting consumers' intention towards purchasing halal Food in South Africa: a structural equation modeling	2019
31	Prioritizing the risks in Halal food supply chain: an MCDM approach	2022
30	Muslims' willingness to pay for certified halal food: an extension of the theory of planned behavior	2020
27	Determinants of halal-food consumption in Indonesia	2020
26	Personal intrinsic religiosity and product knowledge on halal product purchase intention: Role of halal product awareness	2020
24	Consumer behavior towards willingness to pay for Halal products: An assessment of demand for Halal certification in a Muslim country	2019
22	Halal food: structured literature review and research agenda	2021
22	Indonesian Millennials' Halal food purchasing: merely a habit?	2020

Table 4. shows the ten articles with the highest number of citations from each journal obtained from the Scopus-indexed metadata. The article with the most citations was written by [Farnoosh \(2020\)](#) with the title "*Understanding the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease (COVID-19) based on available evidence - A narrative review.*" This study discusses the correlation between halal food and the Covid-19 pandemic; given the origins of Covid-19, Islamic nutrition and health recommendations, especially halal food and health care, need more attention worldwide, and the need to reduce the level of anxiety that can cause stress. Moreover, the need to advise and train the public to adhere to all health principles is significant in the fight against this disease. Meanwhile, other publications are listed in the top 10 categories with the most citations in table 4 above.

Sentiment Analysis

Next, the author tries to calculate sentiment with the theme of halal food published during the 2019 to 2022 pandemic from Scopus-indexed journals. Sentiment analysis is research commonly used to measure public sentiment towards a theme. The tool used in this research is SentiStrength, a data processing tool. Specific documents, both in articles, reviews, and conference articles related to the theme of halal food, as many as 88 pieces were selected as data sources. The following picture is the result of sentiment analysis on halal food:

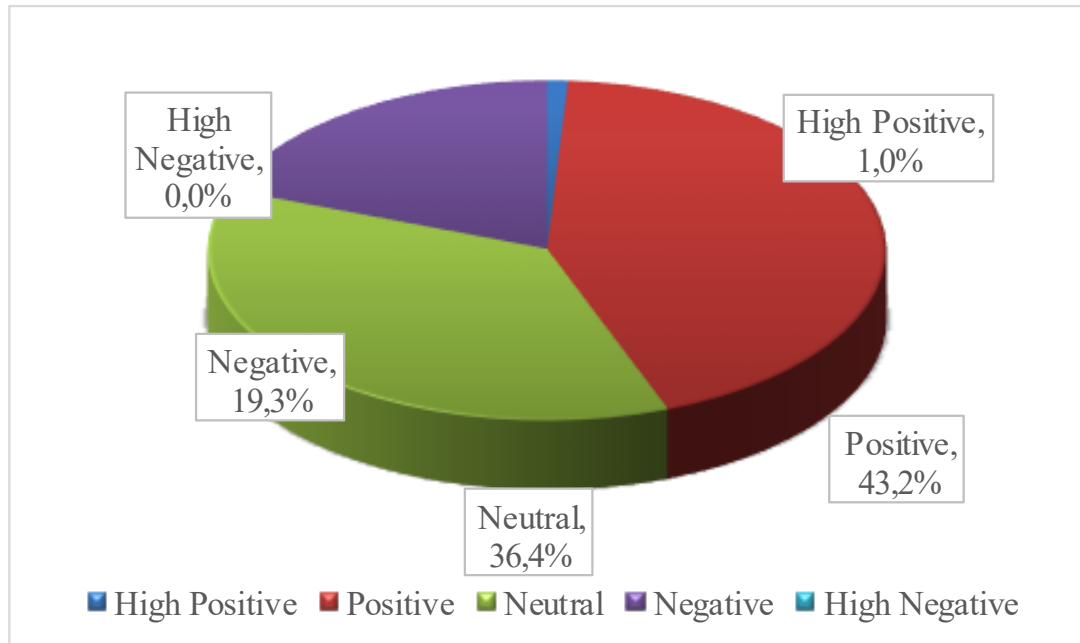


Figure 3. Sentiment Analysis on Halal Food

Sentiment results are obtained from titles and abstracts taken from Scopus metadata. From the processed data, the results are sorted from very negative (-5) to very positive (5) intervals, with 0 being neutral. The score is calculated by adding the sentiment scores of each word registered in SentiStrength.

From the picture above, it can be seen that halal food has perfect sentiment (high positive), as much as 1%, followed by good sentiment (positive), as much as 43.2%, lousy sentiment (negative), as much as 19.3%, the rest have neutral sentiment (neutral) 36,4%. This means that most of the literature on halal food during the COVID-19 pandemic has positive sentiments.

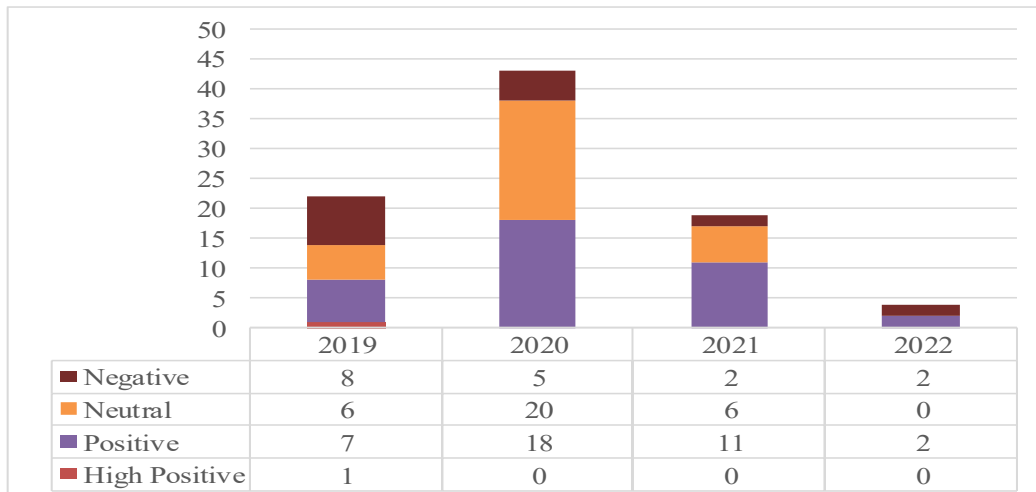


Figure 4. Analysis of Intertemporal Sentiment on Halal Food

Based on Figure 4 above, we can see the development of the world of research on halal food. With the development of research on halal food, the number of sentiments toward the research tends to fluctuate yearly. The highest number of positive and neutral sentiments occurred in 2020. Furthermore, in the stacked column, it can be seen from 2019-2022 that, there was a decline in negative sentiment related to halal food. That is often discussed in the literature, and it is interesting to see the development of sentiment toward this theme.

Table 5. Key Factors Affecting Sentiment

Positive	Negative
<ul style="list-style-type: none"> • Food safety • Trust • Satisfaction • Intention to recommend • Acculturation 	<ul style="list-style-type: none"> • <i>Supply risk management</i> • <i>Muslim minority country</i> • Brand hate • Fake news

Table 5 summarizes the research findings, which cover the main characteristics that influence public sentiment, both positive and negative, based on articles published on halal food over the past four years.

One of the articles with positive sentiments is the paper by [Lim et al. \(2022\)](#) entitled "*Non-Muslim consumers' intention to purchase halal food products in Malaysia.*" The study identified the tendency of non-Muslim consumers to purchase halal food products, which was modulated by the acculturation effect. This acculturation effect adds to the social integration of various Malaysian races. Malaysians' food preference preferences reflect the influence of cultural acculturation, even though their religious beliefs and home cultural backgrounds differ. The study findings reveal that the views of non-Muslim consumers, personal preferences, and perceived behavioral influences are positively caused by their purchase of halal food items. In addition, the acculturation effect acts as a moderator in the relationship between attitude and purchase intention.

One of the papers with negative sentiments is the paper by [Ahmed et al. \(2019\)](#) entitled "*Prioritizing the risks in Halal food supply chain: an MCDM approach.*" This article examines the risks inherent in the halal food supply chain, defined as suppliers failing to deliver ingredients that meet halal criteria, thereby reducing the industry's economic benefits. The study findings reveal that the most significant hazard is "supply-related risk." The integrity of raw materials is an essential component of the halal food supply chain. This study shows that by integrating internal processes and outsourcing parts, a holistic picture of halal food production and delivery can help reduce halal food supply chain risks.

One of the papers with neutral sentiments is by [Secinaro & Calandra \(2021\)](#), titled "*Halal food: structured literature review and research agenda.*" This article assesses the literature on halal food, a rapidly growing subject. In addition, the authors classify significant themes in this research stream, discuss potential research directions, and propose a research agenda. Five research clusters emerged from the findings of this study: halal food and the role of certification, halal food and awareness, halal food production and quality, halal food in tourism management, and halal food and supply chain.

4. Conclusion

This study aims to discover how the scientific literature has developed with the theme of halal food during the 2019 to 2022 pandemic, with 88 studies equipped with a Scopus-indexed Digital-Object-Identifier (DOI).

In addition, this review includes sentiment analysis from a comprehensive evaluation of interdisciplinary research on halal food published in 2019. In terms of sentiment analysis, the halal

food theme has a very good (high positive) sentiment of 1%, followed by a good (positive) sentiment of 43.2%, bad sentiment (negative) of as much as 19.3%, and rest have neutral sentiment (neutral) 36.4%. This means that most of the literature on halal food during the COVID-19 pandemic has positive sentiments.

The findings of this study are that during the pandemic, halal has become part of a healthy lifestyle trend, especially in the food and beverage sector. The trend of healthy halal food has increased because it is believed to increase immunity. In addition, during the Covid-19 pandemic, the halal product industry was still able to record a positive performance, so it is a great opportunity and potential to develop the halal food and beverage industry and needs to be supported by strengthening legal and coordinating aspects, the role of certification, awareness and food, halal food production and quality, as well as halal food and supply chain.

With the increase in the halal industry in the halal food and beverage sector, it is hoped that it can become one of the relevant supports for the SDGs, especially in the third goal, namely ensuring a healthy life and increasing prosperity and welfare, assisting economic growth by strengthening the halal value chain, which is the primary strategy for accelerating sharia economic growth.

5. References

- Ahmed, W., Najmi, A., Faizan, H. M., & Ahmed, S. (2019). Consumer behavior towards willingness to pay for Halal products: An assessment of demand for Halal certification in a Muslim country. *British Food Journal*, 121(2), 492–504. <https://doi.org/10.1108/BFJ-02-2018-0085>
- Akin, E. (2021). The Role of Halal Food in Healthy Lifestyle. *Asian Journal of Traditional, Complementary and Alternatives Medicines*, pp. 4, 53–60. <https://doi.org/10.22040/ATCAM.2019.108135>
- Anas, Yusof, W.M. dan Mahani. (2010). "The Concept of Halalan Tayyiba and Its Application in Products Marketing: A Case Study at Sabasun HyperRuncit Kuala Terengganu, Malaysia", *Internasional Journal of Business and Social Science*, Vol. 1, No. 3, hlm. 239.
- Aziz, N. N. A., Abd.Aziz, N. A., Aziz, N. A. A., Omar, Z., & Hassan, W. H. A. W. (2015). A Review on the Emergence and Growth of Halal Studies. *Procedia Economics and Finance*, 31(15), 325–332. [https://doi.org/10.1016/s2212-5671\(15\)01204-6](https://doi.org/10.1016/s2212-5671(15)01204-6)
- Bashir, A. M. (2020). Awareness of purchasing halal food among non-Muslim consumers: An explorative study concerning Cape Town of South Africa. *Journal of Islamic Marketing*, 11(6), 1295–1311. <https://doi.org/10.1108/JIMA-04-2018-0077>
- Crescentrating, & KNEKS. (2021). *Halal Food Indonesia Dining and Delivery Markets, Behaviors and Preferences*.
- Farnoosh, G. (2020). Understanding the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) and coronavirus disease (COVID-19) based on available evidence - A narrative review. In *Journal of Military Medicine* (Vol. 22, Issue 1, pp. 1–11). <https://doi.org/10.30491/JMM.22.1.1>
- Giyanti, I. (2020). Prioritizing important factors for the success of halal food standard practice in Small and Medium Enterprises. In *IOP Conference Series: Materials Science and Engineering* (Vol. 1003, Issue 1). <https://doi.org/10.1088/1757-899X/1003/1/012102>
- Haqqoni, N. S., Aprilia, F. P., & Maulina, I. N. (2020). Awareness Level Of Halal Food Products And Healthy Lifestyles For Realizing Sdgs (Comparative Study Before And When Covid- 19). *Airlangga International Journal of Islamic Economics and Finance*, 3(2), 111. <https://doi.org/10.20473/aijief.v3i2.23876>

- Kemenkeu RI. (2021). Sumber Energi Pertumbuhan Negeri. In *Majalah Media Keuangan*: Vol. XIV (Issue 167). <https://www.kemenkeu.go.id/media/17743/mk-week-1-mei-up.pdf>
- Kemenkeu. (2021, November 17). Sektor Industri Halal Memiliki Potensi Besar dalam Perekonomian Nasional. Kementerian Keuangan; www.kemenkeu.go.id. <https://www.kemenkeu.go.id/publikasi/berita/sektor-industri-halal-memiliki-potensi-besar-dalam-perekonomian-nasional/>
- Anas, Yusof, W.M. dan Mahani. (2010). "The Concept of Halalan Tayyiba and Its Application in Products Marketing: A Case Study at Sabasun HyperRuncit Kuala Terengganu, Malaysia", *Internasional Journal of Business and Social Science*, Vol. 1, No. 3, hlm. 239.
- Kemenkeu. (2021, November 17). Sektor Industri Halal Memiliki Potensi Besar dalam Perekonomian Nasional. Kementerian Keuangan; www.kemenkeu.go.id. <https://www.kemenkeu.go.id/publikasi/berita/sektor-industri-halal-memiliki-potensi-besar-dalam-perekonomian-nasional/>
- Kemenko Perekonomian. (2021, November 30). Pemerintah Siap Wujudkan Indonesia Sebagai Pusat Produsen Halal Dunia. www.kemenkeu.go.id. <https://www.kemenkeu.go.id/publikasi/berita/sektor-industri-halal-memiliki-potensi-besar-dalam-perekonomian-nasional/>
- Kore, M., Naik, D. N., Chaudhari, D., & Kore, M. (2021). A Bibliometric Approach to Track Research Trends in Computer-Aided Early Detection of Cancer Using Biomedical Imaging Techniques. *10(3)*, 318–327. <https://doi.org/10.5530/jscires.10.3.48>
- Lim, Y. H., Lada, S., Ullah, R., & Abdul Adis, A. A. (2022). Non-Muslim consumers' intention to purchase halal food products in Malaysia. *Journal of Islamic Marketing*, *13(3)*, 586–607. <https://doi.org/10.1108/JIMA-06-2020-0172>
- Lubis, HN, Mohd-Naim, NF, Alizul, NN, & Ahmed, MU (2016). Dari pasar ke piring makanan: Teknologi dan inovasi terpercaya saat ini dalam analisis makanan halal. *Tren Ilmu dan Teknologi Pangan*, *58*, 55-68. <https://doi.org/10.1016/j.tifs.2016.10.024>
- Masterplan Ekonomi Syariah Indonesia 2019-2024. (2018). In Kementerian Perencanaan Pembangunan Nasional (Bappenas).
- Nurfajri, Y. F. (2018). The Effect of Halal-Labelled Food Awareness Towards Purchase Intention Among Urban Muslims (Study of Indonesian Students in Japan). *AFEBI Islamic Finance and Economic Review*, *2(02)*, 55. <https://doi.org/10.47312/aifer.v2i02.113>
- Premanandh , Jagadeesan Bin Salem, S. (2017). Kemajuan dan tantangan terkait dengan otentikasi halal barang kemasan konsumen. *Jurnal Ilmu Pangan dan Pertanian*, *97 (14)*, 4672–4678. <https://doi.org/10.1002/jsfa.8481>
- Rohman, A., & Fadzillah, NA (2018). 21 - Teknik berbasis lipid yang digunakan untuk otentikasi makanan halal dan halal. Dalam *Penyiapan dan Pengolahan Makanan Religius dan Budaya*. Elsevier Ltd. <https://doi.org/10.1016/B978-0-08-101892-7.00021-3>
- Rusydia, AS, & Marlina , L. (2020). Analisis Sentimen terkait Sertifikasi Halal. *Jurnal Ekonomi dan Bisnis Aseanomics (JEBA)*, *5(1)*, 69–85.
- Salahudin, A., Ramli, MA, Zulkepli, MIS, & Razak, MIA (2018). Isu dalam Produk Daging Halal dan Teknologi Otentikasi dari Perspektif Islam. *Jurnal Internasional Penelitian Akademik dalam Bisnis dan Ilmu Sosial*, *7 (12)*, 1305–1315. <https://doi.org/10.6007/ijarbss/v7-i12/3768>
- Secinaro, S., & Calandra, D. (2021). Halal food: structured literature review and research agenda. *British Food Journal*, *123(1)*, 225–243. <https://doi.org/10.1108/BFJ-03-2020-0234>
- Shah Alam, S., & Mohamed Sayuti, N. (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>

- Skachilova, S. Y., Shilova, E. V., & Chuchalin, A. G. (2021). Prospects for the development of bronchodilators. *Russian Chemical Bulletin*, 5(2), 2022–2035. <https://doi.org/https://doi.org/10.29303/ulrev.v5i2.184>
- Vanany, I., Soon, J. M., Maryani, A., & Wibawa, B. M. (2019). Determinants of halal-food consumption in Indonesia. *Journal of Islamic Marketing*. <https://doi.org/10.1108/JIMA-09-2018-0177>
- Wahyuni, H. (2019). Food safety and halal food in the supply chain: Review and bibliometric analysis. *Journal of Industrial Engineering and Management*, 12(2), 373–391. <https://doi.org/10.3926/jiem.2803>
- Yusuf, A. M. (2017). *Metode Penelitian: Kuantitatif, Kualitatif, & Penelitian Gabungan*. KENCANA.
- Zailani, S., Iranmanesh, M., Jafarzadeh, S., & Foroughi, B. (2020). The influence of halal orientation strategy on the financial performance of halal food firms: Halal culture as a moderator. *Journal of Islamic Marketing*, 11(1), 31–49. <https://doi.org/10.1108/JIMA-01-2018-0023>