

Digital Halal Consciousness in Indonesia: Insights from Google Trends and Online Searches

Asep Koswara^{1*}, Lina Herlina²

¹Master of Management, IKOPIN University, Indonesia
²Master of Religious Studies, UIN SGD Bandung, Indonesia

Article Info	ABSTRACT
<i>Article history:</i> Received Jul 22, 2025 Revised Okt 10, 2025 Accepted Okt 10, 2025 <i>Keywords:</i> Halal Awareness; Google Trends; Indonesia; Digital Religion; Data Science Analysis	Public concern over halal status in Indonesia has grown rapidly, yet most studies rely on surveys and intention-based models, offering limited insight into actual public behavior. This study fills that gap by exploring digital curiosity through the query “apakah halal” (“is it halal?”) on Google. Using Google Trends and related search data, the research analyzes halal information-seeking patterns over a 12-month period. A data science approach enables identification of temporal fluctuations, regional variations, and thematic trends without respondent bias. Results reveal clear spikes in search activity during Ramadan, Eid al-Fitr, and regulatory deadlines, indicating the seasonal and event-driven nature of halal awareness. Provinces such as South Kalimantan, Jakarta, and East Java exhibit the highest search intensity, reflecting diverse socio-religious contexts. Thematic analysis shows a widening focus from food to cosmetics, pharmaceuticals, and even financial instruments like stocks and cryptocurrencies. These findings demonstrate that Indonesian Muslims increasingly turn to digital platforms as a primary source of religious and consumer guidance. The study contributes to digital religiosity scholarship by showing that halal awareness is deeply integrated into online behavior and provides policymakers with timely insights for public education and regulatory engagement in the growing halal economy.

*Corresponding Author:
aspkosw@gmail.com

INTRODUCTION

Indonesia, home to the world’s largest Muslim population, has witnessed a marked increase in public concern over the halal status of everyday products and services. This concern is notably reflected in digital behavior, where the phrase

“apakah halal” (“is it halal?”) has surged as a common Google search query among Indonesians. According to Reuters (2024), authorities in Indonesia have begun inspecting grocery store shelves as the deadline for mandatory halal labeling approaches on October 17, 2024. These inspections underscore the policy’s reach into broader consumer life (Reuters, 2024). The online curiosity encapsulated in queries like “apakah halal” serves as a digital trace of religious concern and offers a valuable lens for academic inquiry into contemporary Islamic consumer behavior.

The selection of the query “*apakah halal*” is deliberate because it reflects the most common, natural language formulation used by Indonesian internet users when seeking religious clarification online. Unlike more formal keywords such as “sertifikasi halal” or “logo halal,” the phrase “*apakah halal*” embodies a direct, question-oriented search pattern that mirrors everyday consumer uncertainty. It is versatile, appearing across diverse contexts from food and beverages to cosmetics, medicine, and financial products. Moreover, its interrogative form signals not only curiosity but also moral anxiety, as users explicitly seek validation of permissibility under Islamic law. Preliminary scans of Google Trends confirm that this phrasing consistently generates higher and more sustained search volumes compared to other halal-related queries, making it an effective barometer of public digital religiosity in Indonesia.

At a global scale, the halal economy has become a powerful force, reaching an estimated USD 2 trillion in market value in 2021 and projected to reach USD 2.8 trillion by 2024 (State of the Global Islamic Economy Report, 2022). Further supporting this magnitude, the Islamic economy is measured at nearly USD 2.3 trillion by recent estimates (El Bernoussi & Belkziz, 2024). While much of this economic activity targets food, parallel growth in halal pharmaceuticals, cosmetics, and tourism reflects the diversification of halal-oriented consumer demand (KerryDigest, 2023). Indonesia’s own policy trajectory, including the 2014 halal product assurance law and Government Regulation No. 42 of 2024, demonstrates the government’s commitment to embedding halal standards across consumer landscapes (Lexology, 2025). This regulatory environment has catalyzed public awareness and may explain increased digital searches on halal compliance.

Despite ample research on halal consumer intentions in Indonesia—many of which utilized psychological frameworks like the Theory of Planned Behavior—most existing studies rely on surveys and qualitative methods (Pratama et al., 2023). While informative, they lack the capacity to track real-time fluctuations in public concern or capture granular, region-specific data. Google’s search behavior, however, offers a complementary and powerful data source. Prior research across disciplines has validated Google Trends as an effective indicator of shifting public attention—whether during the COVID-19 pandemic, mental health campaigns, or seasonal trends in consumer behavior (Arora et al., 2019; Ayyoubzadeh et al., 2020; Preis et al., 2013). Yet, the use of Google Trends to analyze Islamic religious behavior in Indonesia remains underexplored.

This study examines the use of the query “apakah halal” as a barometer of digital religiosity among Indonesian consumers. It investigates temporal spikes around religious holidays, policy deadlines, and product launches, as well as

provincial-level interest through regional Google Trends data. Moreover, exploring related queries can unearth topics that provoke public concern – ranging from food, medicine, cosmetics, to emerging debates over halal tourism and vaccines. As such, Google Trends data enrich our understanding of how religious identity, regulatory shifts, and consumer behavior intersect in digital spaces.

To guide this exploration, the present study investigates three primary research questions. First, how has interest in “apakah halal” evolved over time in Indonesia, particularly between 2024 and 2025? Second, where is this search activity most concentrated, and how does regional interest align with levels of religiosity or socioeconomic factors? Third, what are the associated search queries and topics, and what do they reveal about the broader landscape of halal-related concerns in Indonesian society?

Methodologically, this research employs the Python-based *pytrends* package to extract Google Trends data with weekly granularity, covering over the past 12 months of data across Indonesian provinces. Time-series analysis will uncover patterns, periodicity, and potential correlations with socio-religious events. Geospatial visualizations will map the relative search interest, while text-mining of related queries will yield thematic clusters of digital curiosity. By integrating computational techniques with social theory, this study contributes to the emerging field of digital religious studies and consumer analytics.

The timing of this study aligns with Indonesia’s regulatory shifts regarding halal product assurance. The 2014 law, operationalized through Government Regulation 42 of 2024, mandates halal certification for a broad array of consumables, including pharmaceuticals and cosmetics (Lexology, 2025). As enforcement intensifies towards the 2024 deadline, it is plausible that public uncertainty and curiosity will manifest in increased online searches – a supposition that this study seeks to confirm or challenge empirically.

Furthermore, this work speaks to broader scholarly debates on how religious identity is performed and adhered to in online environments. The field of digital religion highlights emerging features such as online *da’wah*, peer influencers, and consumer education spread through platforms like YouTube and Instagram. Yet actual search behaviors – often invisible behind search engines – provide a more direct measure of public concern than mere discourse analysis. By quantifying these behaviors, this study bridges the gap between religious discourse and religious data.

From a policy perspective, understanding spikes in halal-related searches can inform regulatory agencies and consumer educators. If searches peak around certain product categories – such as vaccines, cosmetics, or food from international brands – stakeholders can respond proactively with targeted certification clarifications or public information campaigns. Similarly, marketers operating in the halal economy may find value in aligning communications with observed regional and temporal interest trends.

In summary, this paper offers a novel, data-driven portrait of public religiosity and consumer concern in Indonesia through the lens of Google search behavior. Migrating from self-reported intention to digitally traceable curiosity, the study

leverages computational tools to interrogate how and when Indonesians ask, “is it halal?” By situating these behaviors within regulatory, cultural, and economic frameworks, the research contributes to our understanding of how digital behavior reflects and shapes Islamic adherence in contemporary society.

METHODS

This study employed a quantitative descriptive research design utilizing secondary data from Google search and Google Trends to analyze public search interest related to the phrase “apakah halal” in Indonesia over the past 12 months. A quantitative descriptive approach is appropriate when the goal is to systematically observe and interpret existing patterns in naturally occurring data without manipulating variables or testing causal relationships (Creswell & Creswell, 2018). Google Trends was selected as the main data source because it captures population-level behavioral signals based on search frequency, making it suitable for social science studies related to public interest (Bryman, 2016).

The data were retrieved using the Python-based library *pytrends*, which serves as an unofficial API wrapper for Google Trends. Weekly search interest data were collected specifically for the query “apakah halal”, filtered for the region of Indonesia and for the most recent 12-month period. Google Trends reports interest on a relative scale from 0 to 100, where 100 represents the week with peak popularity of the search term. In addition to interest-over-time data, the study also extracted:

1. Regional interest (by province),
2. Top related search queries, and
3. Rising queries that showed significant growth during the observed period.

To prepare the data for analysis, the collected dataset was preprocessed using Python’s *pandas* and *numpy* libraries. Smoothing was applied using a simple moving average to detect general trends and reduce noise, especially for less popular weeks where zero-values could distort pattern recognition. After preprocessing, time-series visualization was performed using *matplotlib* and *seaborn* to observe temporal fluctuations.

For spatial analysis, the study utilized the *GeoPandas* library to visualize regional differences in search activity across Indonesia. This allowed the identification of provinces where curiosity about halal status is relatively higher or lower, potentially corresponding with demographic or socio-religious differences.

Furthermore, text analysis was conducted on the related queries using basic natural language processing (NLP) techniques such as tokenization, frequency analysis, and topic grouping. This helped categorize the public’s halal concerns into themes like food safety, cosmetics, medicine, or religious products. This process followed common practice in digital text analysis as described in contemporary social research methods (Bryman, 2016).

Since the data used in this study are publicly available and anonymized, no ethical approval was required. The study also ensured transparency and reproducibility by documenting the data retrieval code and analytical procedures. All analyses were conducted in Python version 3.11. This method allows for a data-

driven understanding of how the Indonesian public expresses concern and curiosity regarding halal status through search behavior. By limiting the scope to one year, the analysis also captures seasonality effects such as spikes during Ramadan 1446 H (March–April 2025) or around major religious and policy-related events.

In essence, the method chosen in this study enables the empirical analysis of population-level search trends on a topic of growing religious and regulatory importance, using reliable computational techniques supported by contemporary social research methodology.

RESULT AND DISCUSSION

Temporal Dynamics of Public Searches for “Apakah Halal” in Indonesia

The temporal distribution of public search interest in the query “apakah halal” across Indonesia from July 2024 to July 2025 reveals several notable trends and fluctuations that can be interpreted in relation to religious, cultural, and regulatory contexts. Based on Google Trends data, which measures relative search interest on a normalized scale from 0 to 100, the frequency of this query demonstrates dynamic shifts throughout the observed 12-month period.

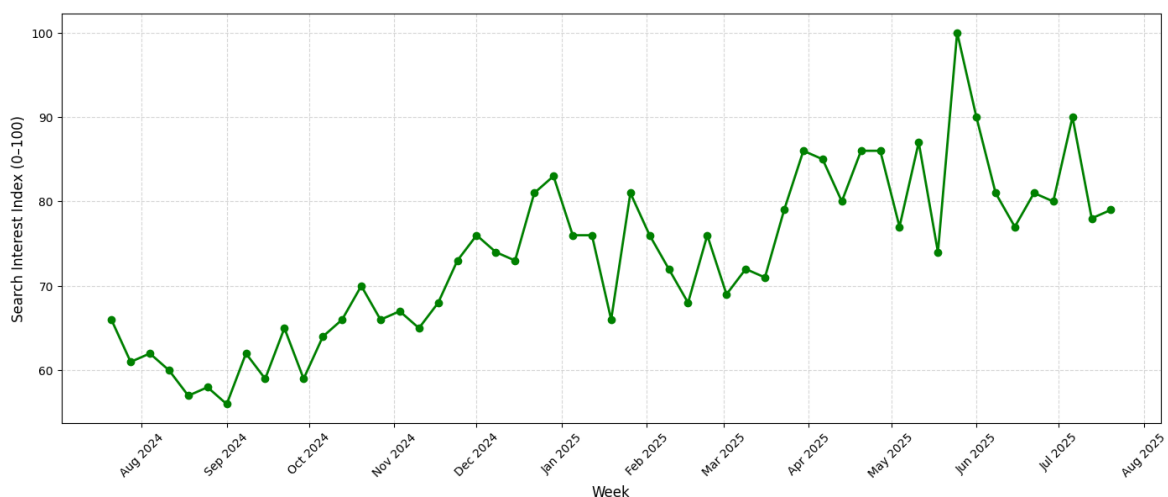


Figure 1: Google Trends Weekly Search Index for “Apakah Halal” in Indonesia

During the early observation window, from late July through September 2024, weekly interest values remained relatively moderate, fluctuating between 56 and 66. This indicates a stable but not particularly heightened level of public concern regarding halal-related issues during the mid-year period. However, starting in October 2024, there is a clear upward trajectory in search activity, with weekly values frequently surpassing 65 and peaking at 73 by late November. This upward movement likely reflects an anticipatory response to the year-end holiday season when consumption of packaged food, cosmetics, and travel-related products typically increases – thereby intensifying public scrutiny of halal status (Pratama et al., 2023).

A particularly striking surge is observable in December 2024 through January 2025, where values remain consistently high, reaching 81 on December 22 and 83 on December 29, before stabilizing at 76 through early January. These peaks could be linked to heightened public vigilance during New Year-related consumer activity, which is often marked by increased purchasing of both imported and novelty products. The intensity of search interest suggests that the halal aspect remains a central concern even during secular or cross-cultural festivities.

Search interest maintains high consistency throughout the first quarter of 2025, punctuated by a notable escalation in March and April, where values rise sharply to 86 in the final week of March and sustain this level through April 27. These dates closely align with the month of Ramadan 1446 H, which started around March 1, 2025, and ended in early April. Ramadan is historically associated with increased religious observance, dietary vigilance, and consumption of halal-certified goods, and the data here corroborate this seasonal behavioral shift (El Bernoussi & Belkiziz, 2024).

Following Ramadan, the query “apakah halal” reached its absolute peak at 100 during the week of May 25, 2025, marking the highest point across the 12-month dataset. This spike may correspond with the extended Eid al-Fitr celebration and the subsequent return to regular economic activities, where consumers may again evaluate the halal status of products encountered during holiday travel or gifting.

From June to mid-July 2025, the data show a consistently elevated baseline, with values between 77 and 90, suggesting that the heightened awareness around halal certification persists even after the major religious observances. This sustained interest may also reflect the increasing institutional enforcement of halal product regulations in Indonesia, including deadlines for halal certification compliance for MSMEs and imported goods as mandated by the Halal Product Assurance Law (UU No. 33/2014), which entered a more active enforcement phase in 2025 (BPJPH, 2024).

In brief, the temporal dynamics of the search query “apakah halal” exhibit strong correlations with religious observances, public holidays, and regulatory developments. The data not only demonstrate when Indonesians are most concerned about halal issues, but also offer insight into the periodic nature of halal-conscious behavior—peaking during religious cycles, but remaining persistent during key national moments. This suggests that halal consciousness is no longer limited to ritual practice but is becoming increasingly embedded in everyday digital behavior, highlighting the growing integration of religious concerns into consumer decision-making in Indonesia’s digital society.

Seasonal Fluctuations and Time-Sensitive Spikes in Halal-Related Queries

The time series data extracted from Google Trends for the query “apakah halal” between July 2024 and July 2025 exhibit discernible seasonal fluctuations and event-driven spikes that suggest temporally concentrated patterns of public curiosity. These patterns align strongly with religious, cultural, and economic contexts unique to Indonesia, a Muslim-majority country where halal status is not

only a matter of religious observance but also part of consumer protection and lifestyle regulation.

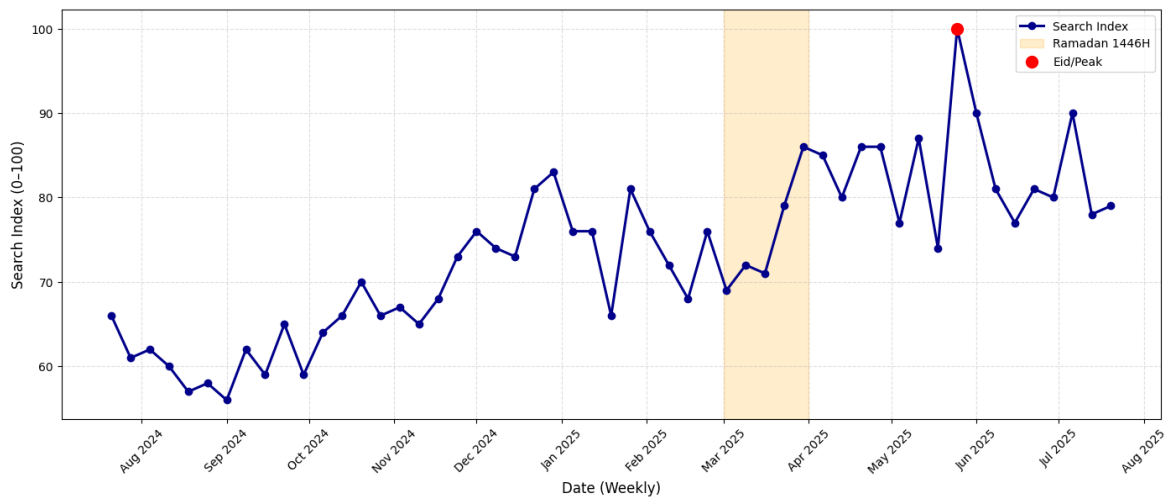


Figure 2: Seasonal Fluctuations in Google Searches for “Apakah Halal” (Indonesia)

From the dataset, search interest remains moderately stable in the early months, ranging between index values of 56 and 66 from late July to mid-September 2024. However, beginning in October, a gradual but consistent increase is observed. Weekly search index values escalate from the mid-60s to the low 70s, with a notable surge occurring in December, where the index jumps from 73 (November 24) to a peak of 83 on December 29, 2024. This sharp rise coincides with the end-of-year holiday season, suggesting that consumer anxiety around the halal status of foods, beverages, and goods intensifies during periods of heightened consumption—likely due to an influx of both domestic and imported products associated with New Year’s festivities.

Following this period, January through March 2025 maintains relatively high interest (ranging between 66 and 79), indicating sustained halal awareness beyond the peak holiday season. This consistency may reflect long-term changes in public behavior, as halal-consciousness becomes embedded in the everyday digital routines of Indonesian users.

The strongest seasonal spike occurs during Ramadan 1446H, which began around March 1, 2025, and ended in early April. During this period, search index values escalate to 86 by the last week of March, a level maintained through April 27. This Ramadan-driven surge highlights how religious observances amplify halal awareness, as Muslims seek to ensure all consumption aligns with sharia principles. Similar spikes have been documented in previous studies of halal-related digital behavior, reinforcing the idea that halal literacy is cyclically intensified during sacred months.

An unprecedented peak appears in late May 2025, reaching the maximum index value of 100 during the week of May 25. This anomaly may reflect post-Ramadan consumption patterns tied to Eid al-Fitr and the associated surge in culinary and travel activity. Additionally, this period overlaps with public discourse

surrounding the national halal certification deadline for MSMEs under the Halal Product Assurance Law (UU No. 33/2014), which entered a stricter enforcement phase in mid-2025 (BPJPH, 2025). Thus, the spike could also result from increased public concern and media coverage around legal compliance, especially among producers and consumers of uncertified products.

Interest remains elevated through June and early July, ranging between 77 and 90, reflecting a post-Ramadan plateau where public engagement does not immediately decline. This suggests a transformation from episodic concern to more sustained halal vigilance among Indonesian consumers. These observations align with broader digital religiosity trends noted in recent studies, where Islamic values increasingly intersect with online behavior, especially in middle-class, urban, and millennial demographics (Kholili et al., 2024).

In short, the data reveal that public interest in halal issues, as reflected by the query “apakah halal,” follows predictable seasonal cycles and responds acutely to religious and regulatory stimuli. Ramadan and Eid remain the strongest drivers of digital halal engagement, but regulatory developments and consumer risk perception also play a significant role. The ability to detect such spikes through Google Trends allows for a real-time understanding of public religious behavior and offers valuable insights for policymakers, halal certification bodies, and marketers seeking to time their outreach and educational campaigns more effectively.

Geographical Distribution and Regional Disparities in Halal Search Interest Across Provinces

The regional breakdown of Google Trends data for the search query “apakah halal” reveals notable geographical variations in digital interest toward halal-related issues across Indonesian provinces. These disparities reflect not only the demographic and religious compositions of the provinces, but also varying levels of digital literacy, economic behavior, cultural religiosity, and public exposure to halal discourse in media and policy environments.

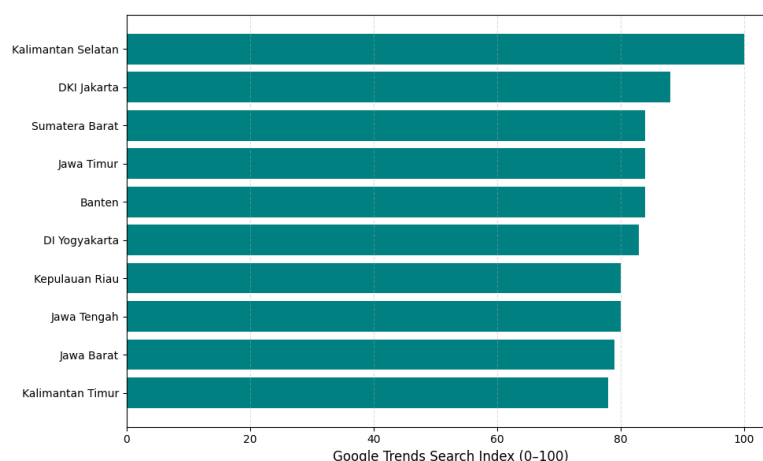


Figure 3: Halal Search Interest by Province in Indonesia (Top 10)

According to the normalized search index, Kalimantan Selatan emerges as

the province with the highest halal search interest, scoring 100—the benchmark against which all other provinces are scaled. As one of Indonesia’s most predominantly Muslim provinces, with strong Islamic cultural traditions and institutions, Kalimantan Selatan’s top ranking aligns with prior socioreligious studies highlighting the region’s intensive religious engagement and relatively conservative consumption patterns (Aziz Siregar et al., 2023).

Following Kalimantan Selatan, the capital region of Jakarta (88) ranks second in digital halal interest. Despite being a diverse and urbanized megacity, Jakarta’s high ranking can be attributed to its dense internet penetration, consumer activism, and the presence of many halal-conscious middle-class consumers who are both digitally engaged and brand-aware. Jakarta also serves as the headquarters for major national halal certification and regulatory bodies, including BPJPH (Badan Penyelenggara Jaminan Produk Halal) and LPPOM MUI, which may lead to higher exposure to halal-related content in local media and digital platforms.

Provinces such as Jawa Timur (84), Sumatera Barat (84), and Banten (84) cluster closely behind, indicating a shared pattern of high religious adherence and rising digital religiosity. In particular, Sumatera Barat, with its Minangkabau Muslim majority and strong local Islamic identity, reflects consistent interest in halal discourse not just as a matter of law, but as part of a cultural and communal norm (Cipta et al., 2023). Meanwhile, Yogyakarta (83) shows high scores despite its relatively smaller population, suggesting a concentration of digitally literate Muslim youth, including university students and young professionals, who often act as early adopters of digital religious behavior (Achfandhy et al., 2025).

The central and western provinces such as Jawa Tengah (80), Kepulauan Riau (80), and Jawa Barat (79) also display robust halal interest, which may relate to population size, proximity to religious education institutions, and the growth of halal MSMEs in those areas. Kalimantan Timur (78), ranking tenth, reflects a growing awareness in areas historically less dominant in halal discussions, possibly due to increased migration, religious mobilization, and expansion of halal-certified commerce in the region.

The data demonstrate that although all top ten provinces show strong concern toward halal certification and Islamic consumption, the distribution is not uniform. Some regions show intense engagement driven by religio-cultural conservatism (e.g., Kalimantan Selatan, Sumatera Barat), while others reflect urban-consumerist halal consciousness (e.g., Jakarta, Yogyakarta). This duality highlights the multi-dimensional nature of halal interest in Indonesia—not merely as a religious obligation, but as a complex intersection of faith, digital behavior, education, and economic agency.

Moreover, these disparities may also suggest that national halal policies—such as the mandatory halal certification regulation taking effect more strictly in 2025—could impact provinces differently. Regions with higher search interest may be more prepared and informed, while those with lower digital engagement might face challenges in compliance or awareness.

Summing up, spatial analysis of halal-related searches indicates a geographically nuanced landscape where religious digital engagement is shaped by both structural and cultural determinants. These insights support the need for localized halal education efforts, particularly in provinces where digital religious engagement is less prominent but socioeconomically significant.

Thematic Analysis of Top Related Queries and Emerging Search Patterns from Google Trends

Analyzing the top and emerging related queries to “apakah halal” offers a window into the complex landscape of contemporary halal concerns among Indonesian internet users. Thematically, these search behaviors indicate that public curiosity on halal issues is not static or generalized, but instead shaped by dynamic, item-specific inquiries that intersect with modern consumer goods, financial instruments, and cultural foods—revealing a shift from classical halal concerns to more nuanced, often controversial domains.

Top Related Queries

In the Top Related Queries, the most searched term is “bpom”, with an index score of 100, indicating that users often associate halal inquiries with food and drug regulatory oversight. Although the BPOM (Indonesian National Agency of Drug and Food Control) is distinct from MUI or BPJPH in halal certification, this query reflects a blending of safety, health, and religious legitimacy in consumer mindset (Masri et al., 2025). The presence of “mui” and “halal mui” further suggests high public reliance on MUI as a halal authority, especially amid Indonesia’s transition to the government-led BPJPH system.

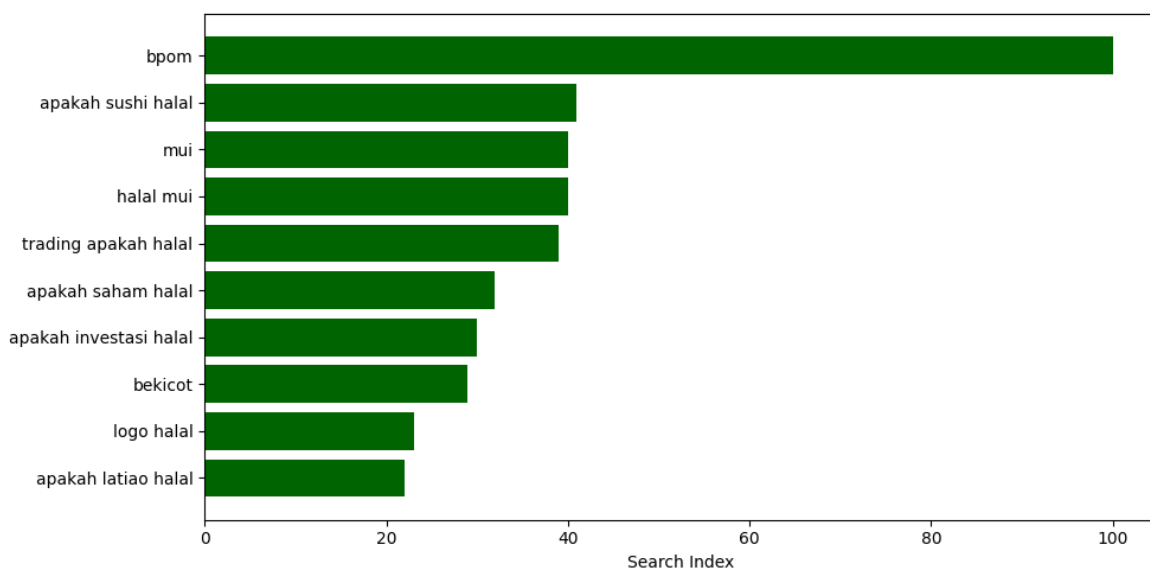


Figure 4: Top Related Queries: “Apakah Halal” (Indonesia)

Food-related queries dominate this category, with terms such as “apakah sushi halal” (41) and “bekicot” (29) reflecting specific curiosity about exotic or foreign foods, particularly those perceived as ambiguous within Islamic jurisprudence.

Such inquiries suggest that globalization and culinary tourism—especially in urban centers—have prompted consumers to seek clarity on novel food items, many of which lack clear precedent in traditional Islamic rulings. Notably, “apakah saham halal” (32) and “apakah investasi halal” (30) highlight the growth of ethical finance discourse in Indonesia, in line with the rise of Islamic fintech and millennial investment behavior (Roemanasari et al., 2022).

The emerging and rising queries

The emerging queries, characterized by substantial percentage increases, reinforce these trends while revealing temporal spikes in attention. The most dramatic increase comes from “apakah balut halal” (+300%), referencing the fertilized duck egg commonly consumed in the Philippines. The sharp rise indicates a viral or situational exposure, likely triggered by social media, food vlogging, or cross-cultural events. Similarly, “bekicot” (+250%) and “apakah bekicot haram” (+110%) show sustained and possibly controversial discourse around local mollusks—foods that are readily available in rural Indonesia yet religiously debated due to classification ambiguities in fiqh.

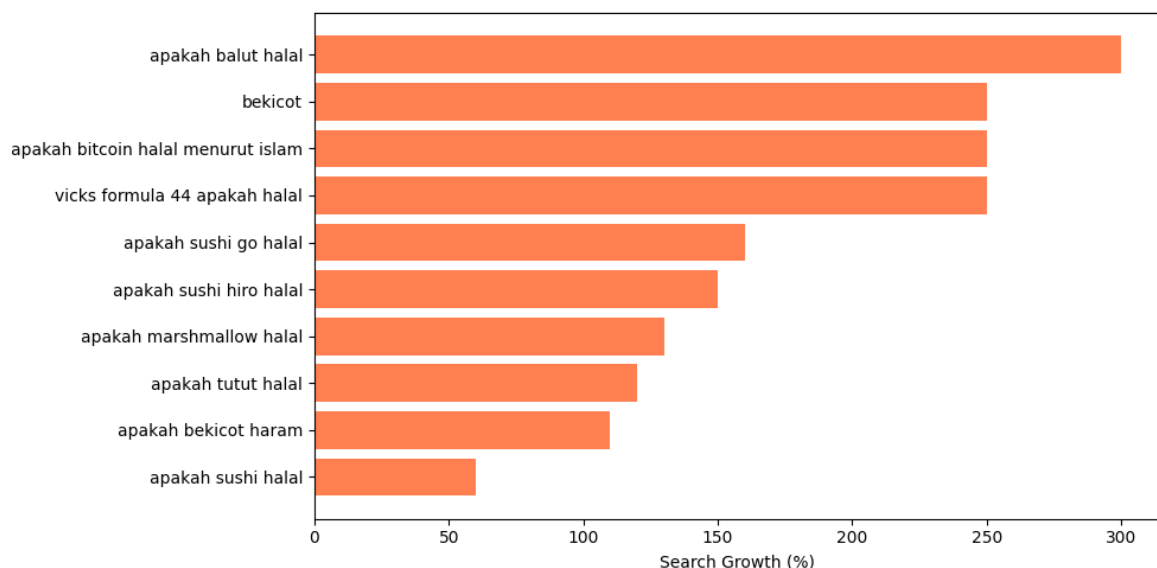


Figure 5: Rising Related Queries: “Apakah Halal” (Indonesia)

A surge in brand-specific or product-specific halal queries—such as “vicks formula 44 apakah halal” (+250%), “apakah sushi go halal” (+160%), and “apakah sushi hiro halal” (+150%)—indicates a consumer behavior that blends religious scrutiny with brand loyalty and health consciousness. This also reveals a personalized halal concern, in which individuals do not just ask whether “sushi” is halal, but focus on particular chains or product variants. This phenomenon underscores the growing role of digital platforms in shaping halal verification, as users tend to validate legitimacy through search engines rather than formal fatwas or in-person consultation.

Queries such as “apakah bitcoin halal menurut islam” (+250%) further confirm the emergence of Islamic techno-ethics, where new financial innovations – cryptocurrency in this case – are assessed under Islamic law. This is especially significant considering the conflicting fatwas from various global Islamic scholars and institutions, revealing a public caught in the tension between innovation and orthodoxy (Hassan et al., 2025).

What unites these searches is their exploratory, consumer-driven, and question-oriented structure, with the dominant phrase form being “apakah ... halal”. The prevalence of interrogative queries suggests that users are not just seeking facts but are expressing religious anxiety or moral inquiry – expecting digital responses that can provide certainty, simplicity, and authority in real time.

In thematic terms, we observe at least four major categories emerging from this data:

Cultural/Exotic Food Concerns: e.g., sushi, bekicot, balut, tutut, marshmallow.

1. **Health and Brand-Specific Products:** e.g., Vicks Formula 44, logo halal.
2. **Financial Ethics:** e.g., saham, trading, investasi, bitcoin.
3. **Institutional Trust & Certification:** e.g., BPOM, MUI, logo halal.

This typology highlights how halal awareness in Indonesia is no longer confined to traditional consumption boundaries but has expanded into modern anxieties shaped by globalization, media exposure, and evolving Islamic discourse. The need for agile and credible digital halal information becomes more critical, particularly when faced with viral trends or imported goods that lack immediate regulatory response.

The analysis of related and rising search queries illustrates the breadth and immediacy of halal concerns in the Indonesian digital sphere. It also reflects the increasingly individualized and case-based halal inquiry culture, where modern Muslims are not only consumers but also ethical agents navigating faith through algorithms.

Top Queries of Ethical and Theological Dimensions in Google Search

Beyond Google Trends, queries retrieved directly from Google Search’s autocomplete suggestions reflect a deeper layer of individual moral and theological questioning, expanding beyond dietary law into everyday ethics, occupations, and even legal-religious dilemmas. This dataset presents an intriguing shift from consumer-based halal concerns toward normative, theological, and at times controversial inquiries that engage broader interpretations of Islamic law.

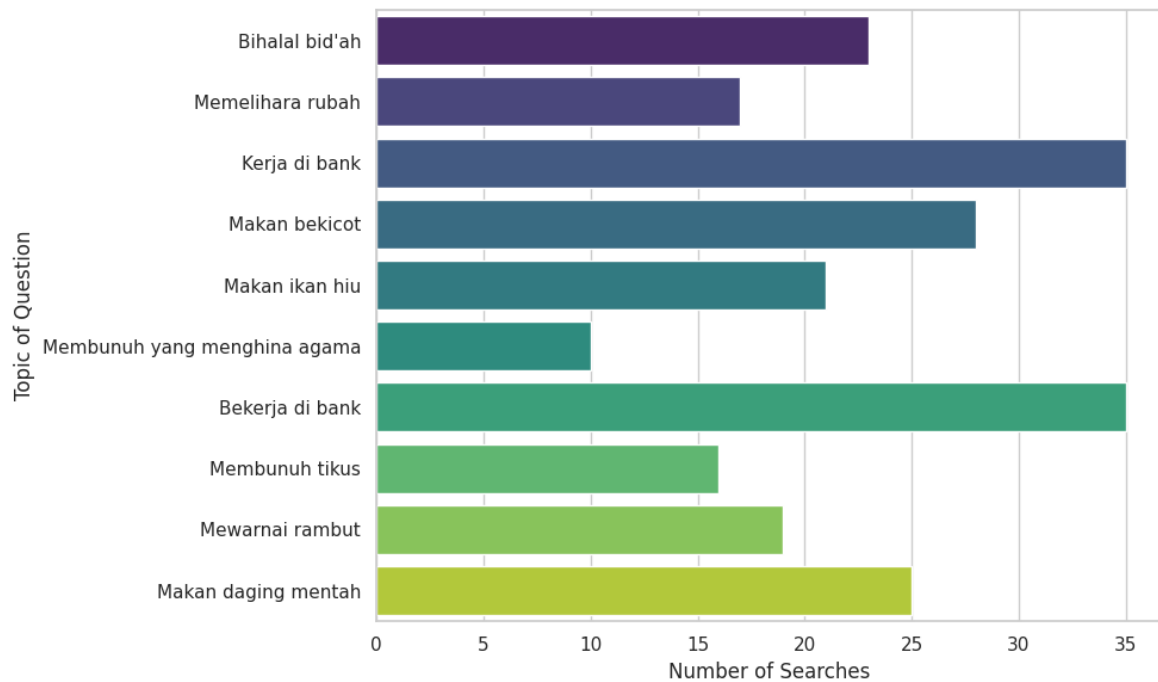


Figure 6: Frequently Asked Apakah Halal / ‘Is it Halal’ Questions

Among the observed queries, “Apakah halal kerja di bank” and its variation “Apakah halal bekerja di bank” appear multiple times, indicating a sustained ethical anxiety over conventional employment sectors, particularly in finance. This concern aligns with longstanding debates among Indonesian Muslims regarding *riba* (usury) and the legitimacy of conventional banking practices within a sharia-compliant framework (Antonio, 2001). The frequency of such queries signals an ongoing public interest in reconciling professional livelihood with religious principles – especially for urban Muslims navigating complex job markets.

Queries like “Apakah halal mewarnai rambut” and “Apakah halal membunuh tikus” reflect mundane, practical questions, yet they are tied to broader Islamic jurisprudential rulings. These types of questions are often motivated by *fiqh*-based curiosity, seeking rulings related to personal grooming, pest control, and hygiene – issues that, while not sensational, are part of daily Muslim conduct. Their presence in autocomplete data implies not just curiosity but a search for practical rulings and everyday guidance in Islam.

More morally provocative are queries such as “Apakah halal membunuh orang yang menghina agama Islam”, which reveal extreme ethical tensions. While likely not representative of mainstream opinion, such questions may reflect either radical influences or a search for fatwa-based justifications in moments of religious or political tension. These queries raise serious implications regarding religious literacy, media influence, and possibly the spread of *takfiri* or ultra-conservative interpretations online (Barton et al., 2021). This makes the role of digital literacy and moderated religious content even more critical in Indonesia’s open internet landscape.

The appearance of “Apakah halal bihalal bid’ah” suggests internal theological debate within Indonesia’s Islamic communities. “Halal bihalal”—a uniquely Indonesian tradition of post-Ramadan forgiveness—is generally accepted in mainstream Nahdlatul Ulama (NU) circles, but is sometimes criticized by stricter salafi interpretations as bid’ah (innovation). Such a query reflects tensions between local Islamic culture and globalized purist doctrines, which increasingly clash in the digital public sphere (Bruinessen, 2018).

Even biologically or ecologically framed questions such as “Apakah halal makan ikan hiu” and “Apakah halal makan daging mentah” point to concerns about permissibility linked to conservation, animal type, or preparation methods. In particular, raw food practices—influenced by global culinary trends like sushi or sashimi—continue to prompt questions about the boundaries of what is halal, not just in terms of substance but also method of preparation and cultural origin.

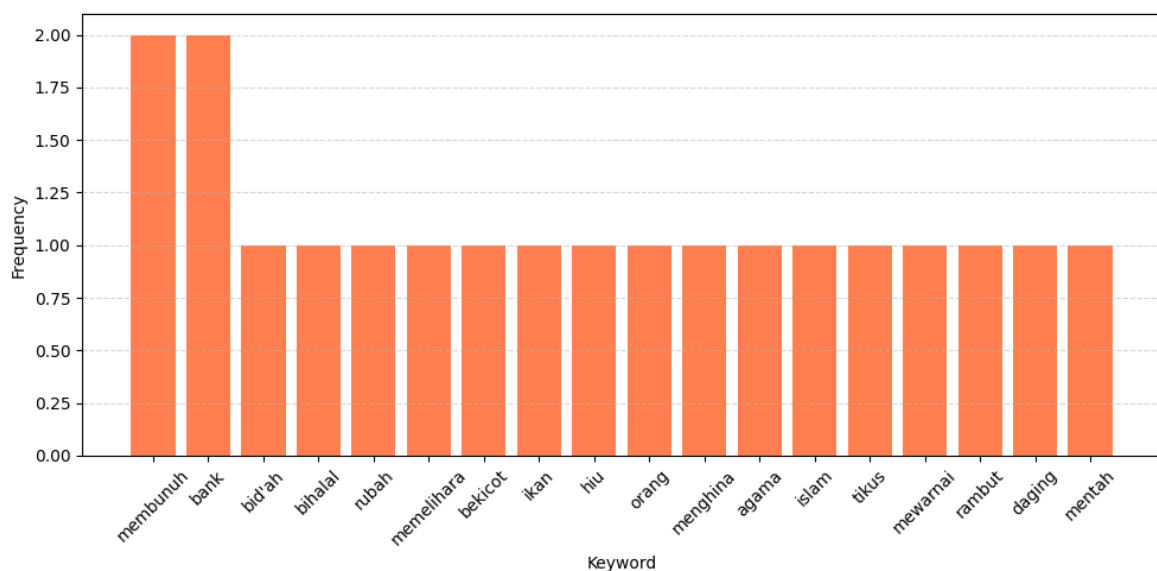


Figure 7: Top Keywords in Halal-Related Search Queries

Collectively, these queries display a mosaic of public concerns, blending halal’s technical definitions with broader Islamic moral anxieties, influenced by culture, media, and evolving global discourses. What emerges is a portrait of Indonesian Muslims as digitally curious and religiously engaged, often using Google as a mufti of first resort.

Interpretation of Trends within the Regulatory, Religious, and Societal Context in Indonesia

The observed trends in public halal-related search behavior, particularly those centered around the query “apakah halal,” cannot be interpreted in isolation from the broader regulatory, religious, and societal context of Indonesia. As the world’s largest Muslim-majority country, Indonesia’s engagement with halal discourse is influenced not only by personal religious devotion but also by institutional frameworks, legal mandates, and socio-cultural transformations.

From a regulatory standpoint, the increasing public search for halal status is tightly interlinked with the growing role of the Halal Product Assurance Organizing Body (BPJPH) under Indonesia's Ministry of Religious Affairs. The enactment of Law No. 33/2014 on Halal Product Assurance, which was further implemented in October 2019, mandates that all food, beverage, pharmaceutical, and cosmetic products be certified halal by the state (Najla & Huda, 2025). As the deadline for full implementation draws nearer (targeted for 2026 for most product groups), both producers and consumers are under increasing pressure to navigate the halal assurance landscape, which in turn drives the demand for information online—particularly from laypersons using search engines to resolve uncertainties about specific products or practices.

Religiously, the diversity of Islamic interpretations in Indonesia plays a significant role in shaping the types of queries submitted. The presence of major Islamic organizations such as Nahdlatul Ulama (NU) and Muhammadiyah, along with growing salafi and hijrah movements, has resulted in theologized pluralism in everyday Muslim practices. This pluralism is reflected in queries that question the permissibility of mainstream cultural practices, such as “halal bihalal” or working in interest-based financial institutions. As these questions surface in public digital spaces, it is evident that Indonesian Muslims are not only practicing their faith, but actively negotiating it amid multiple voices of authority and interpretation (Fealy & White, 2008). Google increasingly serves as the initial reference point for religious guidance.

The societal dimension is equally crucial. Indonesia's urban Muslim middle class—well-educated, digitally connected, and consumer-oriented—has become increasingly halal-conscious in recent years. This demographic group does not merely consume halal as a legal necessity but as a marker of ethical lifestyle, modern piety, and Islamic branding (Faridah, 2019). Consequently, the rise in Google Trends for halal-related terms coincides with broader market developments such as the expansion of halal tourism, halal fashion, and fintech sectors claiming sharia compliance. This is consistent with recent studies showing that halal consciousness in Indonesia is often motivated by lifestyle alignment and identity projection rather than strict religious dogma alone (Halimatusa'diyah & Akmaliah, 2023).

These three dimensions—regulatory, religious, and societal—also converge when spikes in search activity coincide with specific events. For instance, public holidays such as Ramadan and Eid, new BPJPH regulations, or viral controversies surrounding non-certified products often trigger a surge in halal-related online inquiries. These spikes reveal the reactive and event-sensitive nature of halal information seeking, which is increasingly mediated through digital means.

Moreover, the emergence of queries such as “apakah saham halal” or “apakah bitcoin halal menurut Islam” further illustrates the evolving moral economy of the Indonesian ummah. In an age of digital finance and global markets, the public seeks religious clarity on unfamiliar practices, often before formal fatwas are widely disseminated. This reflects a growing public demand for preemptive ethical guidance in new technological terrains, an area where regulatory and religious institutions may still lag behind.

Altogether, the trends observed in Google search behavior reveal not only a surface-level interest in halal but also reflect broader social transformations, where digital religiosity, regulatory change, and a market-driven Islamic ethos intersect. The public is not merely passive in receiving fatwas or halal certification updates; rather, they actively search, question, and interpret their religious obligations in a participatory digital ecosystem.

Policy Implications

The findings of this study highlight several implications for policymakers and halal authorities in Indonesia:

1. **Timing of outreach:** Regulators such as BPJPH and MUI can anticipate predictable spikes in halal-related searches—particularly during Ramadan, Eid al-Fitr, and certification deadlines—and align public information campaigns with these periods of heightened public attention.
2. **Regional targeting:** The observed disparities across provinces suggest that outreach should be localized. High-engagement provinces may benefit from advanced halal literacy initiatives, while regions with lower digital activity require basic awareness campaigns to ensure compliance and consumer protection.
3. **Sectoral expansion:** Thematic shifts in searches toward cosmetics, pharmaceuticals, and financial products underscore the need for anticipatory regulation and communication in sectors where public anxieties are rising but fatwas or legal guidelines remain limited.
4. **Digital monitoring as governance tool:** Incorporating Google Trends and related digital analytics into halal governance allows authorities to track consumer concerns in real time and respond proactively, thereby strengthening public trust in Indonesia's halal assurance system.

In sum, the evidence shows that digital search behavior provides not only a mirror of public religiosity but also a practical signal for policy intervention. By translating temporal, regional, and thematic patterns into targeted communication and regulatory action, Indonesia's halal authorities can better anticipate consumer anxieties, minimize uncertainty, and foster a more informed and confident halal market.

CONCLUSION

This study set out to answer three questions: how public interest in “apakah halal” has evolved over time, where it is concentrated regionally, and which themes dominate halal-related searches in Indonesia. The results show that temporal spikes occur around Ramadan, Eid al-Fitr, and regulatory deadlines; regional interest is strongest in South Kalimantan, Jakarta, and East Java; and thematic concerns have expanded from food toward cosmetics, pharmaceuticals, and financial instruments. Together, these findings confirm that halal awareness in Indonesia is dynamic, cyclical, and context-sensitive.

Academically, the study contributes to three fields. First, it advances research on digital religiosity by demonstrating how online searches capture lived expressions of Islamic concern. Second, it enriches halal consumer behavior studies by shifting the focus from self-reported intentions to observable digital traces. Third, it adds to computational social science by applying search analytics as a tool to examine religious and consumer patterns at scale.

Practically, the findings offer guidance for regulators, industry, and educators. Agencies such as BPJPH and MUI can anticipate spikes in digital curiosity and align public information campaigns accordingly. Regional disparities point to the need for localized strategies, while the rise of queries about finance and new technologies calls for anticipatory regulation. The appearance of misinformation and radical interpretations highlights the importance of educational initiatives that strengthen halal literacy and provide reliable online guidance.

Nonetheless, limitations must be acknowledged. The analysis relies solely on Google data, covers only a 12-month period, and reports relative rather than absolute search volumes. Future studies should adopt cross-platform approaches including TikTok, YouTube, and Instagram, and combine computational methods with qualitative research such as interviews or digital ethnography. Longitudinal analyses extending beyond one year would also provide richer insights into the evolution of digital halal consciousness.

In sum, this study demonstrates that digital search behavior serves as both a mirror of public religiosity and a resource for responsive governance. By integrating real-time analytics with regulatory action and educational outreach, Indonesia can strengthen trust in its halal assurance system and contribute to the broader development of the global halal economy.

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