

## Islamic Economic Student's Knowledge and Attitude Toward Halal Pharmacy Product in East Java, Indonesia

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**Abstract:** *A Muslim has a limitation in consuming or wearing something. A Muslim is only permitted to consume something halal, either in food, drink, clothes, even finance. In the pharmaceutical industry, the standard of Halal Pharmaceutical is the most crucial document that should be followed to standardize the quality and the safety of halal. This research will analyze the knowledge and attitude of Islamic economics students who have the basic knowledge about halal and analyze how their attitude to the halal pharmacy. The research method is qualitative, with a literature review and descriptive analysis data from the questioner. Information on the label will influence the choices before buying and or consuming the medicine on the customer site. Consumers prefer to choose medicine with a halal label so that it will also benefit industries that have halal labels. But, in halal pharmacy, customers still hard to applied halal things in medicine; even though customers understand about halal, customers' attitude does not imply the principle of halal in the medicine.*

**Keywords:** *Halal certification; Halal medicine; Customer knowledge; Attitude*

**Paper type:** *Research paper*

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**Abstrak:** Seorang muslim memiliki batasan dalam mengkonsumsi atau mengenakan sesuatu. Seorang Muslim hanya diperbolehkan mengkonsumsi yang halal, baik dalam makanan, minuman, pakaian, bahkan keuangan. Dalam industri farmasi, standar Farmasi Halal merupakan dokumen paling krusial yang harus diikuti untuk standarisasi mutu dan keamanan halal. Penelitian ini akan menganalisis pengetahuan dan sikap mahasiswa ekonomi Islam yang memiliki pengetahuan dasar tentang halal dan menganalisis bagaimana sikapnya terhadap apotek halal. Metode penelitian yang digunakan adalah kualitatif, dengan studi pustaka dan analisis data deskriptif dari kuisioner. Informasi pada label akan mempengaruhi pilihan sebelum membeli dan atau mengonsumsi obat di situs pelanggan. Konsumen lebih memilih obat yang berlabel halal sehingga menguntungkan industri yang berlabel halal. Namun di apotek halal, konsumen masih sulit menerapkan halal dalam obat; Meski konsumen paham tentang halal, namun sikap konsumen tidak menyiratkan prinsip kehalalan dalam obat.

**Kata Kunci:** Sertifikasi halal; Obat halal; Pengetahuan konsumen; Sikap

## INTRODUCTION

Halal is a Quran term and Arabic phrase which means allowed or permitted by Islamic Law. Another popular term is *halalan toyyiban*, which merely means allowed and permissible for consumption with relation to sharia law as long as they are safe and not harmful. According to [Al-Qaradawi \(2007\)](#), the definition of halal is the condition when a substance is not dangerous, and Allah allows it to be done. A Muslim has a limitation in consuming or wearing something. A Muslim is only permitted to consume something halal, either in food, drink, clothes, even finance. Each prohibition or suggestion given by Allah SWT is undoubtedly beneficial for human beings. In medicines and pharmaceuticals, Allah and His Prophet have emphasized healing and treatment using the Halal medium. Another popular term is *halalan toyyiban*, which means allowed and permissible for consumption related to sharia law as long as they are safe and not harmful ([Department of Islamic Development Malaysia, 2005](#)).

The opposite of halal is haram or non-halal, which means forbidden and prohibited. [Regenstein et al., \(2003\)](#) classify haram items into nine classes: dead animals; blood; pig; and its derivatives such as pork, lard, and gelatin; halal animals slaughtered without pronouncing the name of God (Allah); animals killed in a manner that prevents their blood from being fully drained from their bodies; all kinds of intoxicants, including alcohol or *khamr*; carnivorous animals with fangs such as lions, dogs, wolves, or tigers, birds with sharp claws (birds of prey) such as falcons, eagles, owls, or vultures, and land animals such as frogs or snakes. When used in the relationship to food, drugs, and cosmetics products, halal can be understood as any foods or pharmaceutical products permissible to be consumed or used by Muslims ([Eliasi & Dwyer, 2002](#)).

Regarding halal, Indonesia needs to recognize a scandal from multinational companies about food in the past few years, which could be a conflict with increasing numbers of consumers. It appears that Muslim organizations are inaccurate. They ignore the orders inspired by religion ([Fischer, 2008](#)). The medicines, pharmaceuticals, supplements, and nutraceuticals only act as a medium for healing for Allah is the one who cures the disease ([Mohezar et al., 2016](#)). In the

pharmaceutical industry, the standard of Halal Pharmaceutical is the most crucial document that should be followed to standardize the quality and the safety of halal pharmaceutical products and to ensure that the consumers take the right medicine without any doubt about its permissibility. The use of medicine mixed with alcohol and gelatin carries the same law with treating diseases with *najis* during emergency cases, which is permissible but with conditions as stated (Halim et al., 2014). The halal guidelines on pharmacy would help foreign investors look like a location for manufacturing Halal pharmaceuticals (Rajagopal et al., 2011). Originally, halal is an Arabic phrase that means allowed or permitted by Islamic Law.

The halal guarantee product in the form of a halal certificate is a fundamental and matter for Indonesian Muslims because Muslims are only permitted to consume and use the products that are following the sharia law. According to Soesilowati (2010), the potential market for such halal products in Muslim countries such as Indonesia is enormous, with several people as many as 1,600 million. In Indonesia, 90% of people are Muslim consumers and must be protected from haram consumption (Adisasmito, 2008). Unfortunately, halal product regulations in Indonesia are made partially inconsistent, appear to overlap, and not systemic so that technically it cannot be used as a strong legal (Hakim, 2015). The weaknesses of legal causes no guarantee to govern halal products, even though the need for guaranteed halal products is inevitable and very urgent, especially in consumer protection and global trade. In 2014, the government issuance law of Halal Product Guarantee (UU JPH). UU JPH emphasized that the product which enters circulates and is sold in Indonesia is obliged to have a halal certificate. The government guarantees safe products such as food, meat, drink, and medicine to protect Muslim consumers (Maulidia, 2013). UU JPH will support the spirit of customer protection because laypeople could not easily recognize how and what material is used. In Indonesia, 2% of the consumption is used for pharmacy products (Prabowo et al., 2012). Currently, halal pharmacy has not been fully applied by the pharmaceutical industry. Only several pharmacy products have a halal certificate; the data from LPPOM MUI shows that only 34 types of drugs have halal certificates from 30 thousand kinds of drugs circulating in the community (Husni et al., 2017). The spirit of UU JPH, which wants to protect the consumers, is hard to apply for pharmacy, also the raw materials used to make processed products, the method making it even very difficult to detect (Aminuddin, 2017). It is also supported by a statement of the Executive Director of International Pharmaceutical Manufacturers Group (IPMG) that the pharmacy Industry endorses the spirit of UU JPH, which wants to protect the consumers, but the rule is hard to apply.

Pharmacy companies are playing an active role in ensuring the provision of Halal Pharmaceuticals to Muslim consumers in Indonesia. Study about attitude and knowledge on Halal Pharmacy became very important to push the industries developing alternative medicine. According to Krasniqi & Krasniqi (2014), the function of recognition, some consumer attitudes serve primarily as a tool for organizing beliefs about products and activities such as trademarks and acquisitions. Some researchers mention that attitude indicates sustainable emotions and the tendencies toward a product or an idea (Vahdati et al., 2015). These attitudes may be appropriate or not in connection with the reality of the product. This

customer can buy any brand, being influenced by the situation or environment of the moment. Customers have function values created and serve to express individual core values and the concept of self. So, consumers who value Halal will affect value creation on products and activities are in no way inconsistent with these values. These customers not only think for pleasure but believe the product offers for the environment. Customers often drive attitudes to buy products suitable for their emotions (Kordnaeij et al., 2013). This happens since they are not safe, either in their appearance are biased, and marketers have been able to perceive and give self-confidence in their products.

The better knowledge the respondents have on halal pharmaceuticals, the better their perception and attitude are towards Halal medicines (Sadeeqa, Sarriff, Masood, Atif, et al., 2013). Sadeeqa et al. (2013) mention any correlations between knowledge and attitude, attitude, and perception toward halal medicine. Wilson & Liu (2011) also mention a deeper understanding of Muslim customers' needs and the Islamic market are very important to build customer loyalty, especially in a country with large Muslim citizens. Furthermore, brand managers are still hard to develop an emotional brand image for the customer. The process of creating halal medicine was very dynamic. According to Daher et al. (2015), religious and spiritual beliefs and medication use intersect were frequently encountered by pharmacists. Patient concerns with excipients of animal origin and medication use while observing religious fasts were the main issues reported, which means that the customer (patient) has attention on halal pharmacy. Still, the pharmacists have no other choice to produce halal medicine. Pujari et al. (2016) mention that people want medication as per their own will and pricing. The physician's or pharmacist's suggestion is not of as much concern over money.

The research that has been done so far to evaluate the attitude and knowledge of consumers regarding Halal pharmaceuticals in Indonesia was limited. Moreover, the study's novelty is the experience and perspective on the issues surrounding Halal medicines are not well explored, especially in Indonesia. Therefore, this study's main objective is to explore Islamic Economics students in East Java's knowledge and attitude about halal pharmacy. The researcher chooses Islamic economics students to reduce the refraction about the understanding of halal, and students in the college could represent society's variety. A comprehensive questionnaire was prepared, asking a variety of questions to assess these individuals' knowledge and attitude from different walks of life.

## RESEARCH METHODS

This research used the qualitative method because it is able to understand people's beliefs, experiences, attitudes, behavior, and interactions (Pathak et al., 2013). This research explores the customer's knowledge and attitude regarding Halal Pharmacy among Islamic Economic. This research used the qualitative method because the qualitative method is used to understand people's beliefs, experiences, attitude, behavior, and interactions (Pathak et al., 2013). This research explores the customer's knowledge and attitude regarding Halal Pharmacy among Islamic Economics Students in East Java, Indonesia. The type and source of data in this

research were primary and secondary data. The preliminary data collect by interview, and secondary data collect from previous research or literature.

When qualitative data is collected for the first time, the aim is to explore the topic with the site participants. Then the researcher extends understanding through the second phase in data collected from a large number of people and usually a representative population sample (Creswell & Creswell, 2017). According to the Ministry of Research and Technology Indonesia data, the population of the best Islamic Economics studies students in public universities at East Java is 3500 students in 2018 (<https://forlap.ristekdikti.go.id/prodi/search/40>). Boddy (2016) stated he wrote around 20-30 for grounded research and 15-30 for interviews. According to Bonett (2002) is 10% of the population. In this study, the authors used the Slovin technique's research samples, according to Tejada & Punzalan (2012). The Slovin's formula for determining samples is as follows:

$$\left(n \frac{N}{1+N(e)^2}\right) \dots \dots \dots (1)$$

Information:

n = Sample size / number of respondents

N = population size

E = Percentage of concession to the accuracy of the sampling error still tolerable; e = 0.1

In the Slovin formula there are provisions as follows:

The value of e = 0.1 (10%) for a large population

The value of e = 0.2 (20%) for a small population

So the range of samples that can be taken from the Slovin technique is between 10-20% of the study population.

The population in this study was 3500 students, the percentage of allowances used was 10% and the calculation results can be rounded to achieve conformity. Hence, the research sample is:

$$n = \frac{3500}{1 + 3500(0.1)^2}$$

$$n = \frac{3500}{36} = 97.2$$

Based on the calculation, the respondents' sample was adjusted to 88.9 or could be rounded to 100 people from the total students. This was done to facilitate data processing and for better testing results.

Samples were taken based on the probability technique right; simple random sampling, where researchers provide equal opportunities for each member of the population to be selected into a random sample without regard to strata in the population itself. This sampling is done by incidental technique. Ellen (2012) stated that random sampling is the determination of samples based on coincidence, i.e.,

anyone who incidentally / incidental meets with the researcher can then be used as a sample; if viewed by people who happen to be met, it is suitable as a data source.

### ***Data collection***

The data collection was done by google form and distributed to the student email; then the questioner was followed by [Sadeeqa, Sarriff, Masood, & Farooqui \(2013\)](#). First part question about demographic information, such as age, gender, and education. The education is to make sure that the sample is Islamic Economic students. The second part is about the knowledge respondent about halal, halal pharmacy, and UU JPH. The last part is about attitude responses regarding halal pharmacy. All part question is mixed closed and open questions.

### ***Analyzing Technique***

The data analysis in qualitative research is done during direct data collection and after the data collection is finished in a certain period. The data analysis includes data reduction, data presentation, conclusion, and verification. In qualitative research, the technique checks the data validity; one of the manners used is the triangulation technique ([Hussein, 2009](#)). According to [Hussein \(2009\)](#), triangulation is a combination of two or more methodological approaches. There are two types of triangulation technique in this study. First, technique triangulation checks the data to the same source with a different method; the questioner's data is matched with the documentation results. If there is any difference, the researcher can further discuss or observe the sources or reduction data. Second, the theoretical perspective is to check the data integration system in current real-world applications and is characterized by several issues from the theoretical point of view.

## **RESULTS AND DISCUSSION**

### **Consumer Knowledge and Attitude**

Consumers have unique characteristics of taste in choosing products and have different beliefs about halal products, where attitudes and subjective norms play an essential role in form intention ([Lada et al., 2009](#)). The result for the decision chooses a halal product is explained based on the interview result. The frequency distribution of the respondent's knowledge regarding Halal pharmaceuticals is depicted in Table 1 about Descriptive Characteristic of Customer. The consumer's age ranges was between 18-47 years old with mean value 32,5 years. The total of 90 respondents was 46% male and 54% female. Most of them is undergraduate student.

Table 1. Descriptive Characteristic of Customer Characteristic

Characteristics	Demographic Characteristics	Frequency
<b>Age</b>	18-27	80%
	28-37	18%
	38-47	2%
<b>Gender</b>	Male	46%
	Female	54%
<b>Education</b>	Undergraduate	63%
	Postgraduate	37%

Sources: Author data

All respondents know about halal concept, which is in line with the knowledge about the need for halal medicine. Most respondent understands halal and familiar with halal, haram, and halal medicine. Moreover, 2% of respondents do not know about the term haram, and the result is in line with the understanding of haram. The knowledge about halal medicine is implied in questions number 3, 4, 5, 6, 7, and 8. The result shows that the respondent knows 40-70% with 59%. The respondent knows in halal concept including material that may contain haram things. The most important is only 44% of respondents known about halal product guarantee law, meaning that this regulation is not familiar yet for the customer, but 99% responded that they agree with halal product guarantee for medicine.

Table 2. Knowledge of Costumers the Knowledge of Halal

No	Question	Response (%)	
		Yes	No
1	Are you aware of the term/ word "Halal"?	100	0
2	Are you aware of the term/word "Haram"?	98	2
3	Are you aware of the term/word "Halal medicines"?	70	30
4	Do you know that Muslim patients need Halal medicines?	100	0
5	Do you know that dead animals, blood, pork and Alcohol are Haram for Muslims to use in any form (food, medication etc.)?	98	2
6	Do you know that capsules are made from gelatin which may be derived from haram source?	63	37
7	Do you know that Syrups and Elixirs contain Alcohol?	40	60
8	Do you know that Alcohol content in medicines exceeding certain percentage is Haram?	63	37
9	Do you know about Halal Product Guarantee Law?	44	56
10	Do you agree on Halal Product Guarantee Law for Pharmacy?	99	1
11	Have you found halal logo on the pack medicine	35	65

Sources: Author data

The respondent who has bought pharmacy product mention that only several products that have a halal logo, the other is they do not found it or do not care about the halal logo, which means that the company cannot guarantee that the raw material

of medicine pure 100% halal. The primary thing that obstructs the step to have a halal certificate is the missing alternative ingredient because some of the ingredients are imported from the countries with a halal certificate. So, even though the customer understands halal, the knowledge is not enough to protect the customer Muslim from *gharar* pharmacy. 65% responded that they could not fund the label halal on the medicine pack, meaning that the government needs to apply UU JPH more seriously, such as making product checking before it was delivered to the store.

Table 3. Attitude of Customer

No	Statement	Response				
		SA	A	N	DA	SDA
1	I discuss with doctor about forbidden/Haram ingredients of drugs	21%	26%	32%	12%	0%
2	I talk to the doctor about the sources of ingredients of medicine before accepting the prescription	21%	18%	39%	18%	0%
3	I prefer Halal medicines	56%	14%	19%	4%	0%
4	I purchase of Halal alternatives, which may be more expensive	39%	26%	26%	7%	0%
5	I am comfortable if pharmacist changes the prescription because of Halal/Haram issue	46%	23%	25%	5%	0%
6	I always choose the medicine that have halal logo	30%	26%	26%	12%	0%
7	I talk to the Pharmacist about the sources of ingredients before accepting the medicines	7%	21%	47%	23%	0%
8	I used to get information about the sources of my medicine	11%	21%	35%	18%	0%

Sources: Author data

SA = strongly agree, A = agree, N = neutral, DA = disagree, SDA= strongly disagree

Table 3 shows 21% of customer has discussed and talks about the ingredients' sources; the other chooses neutral because they never do the discussion. From 100% of respondents who agree about halal and know that Muslims must consume halal medicine, only 56% of the respondents prefer halal medicine. For the purchase of halal alternatives, which may be more expensive, only 39% and the other respondents prefer to choose a purchase from a doctor's medicine. Of all respondents, only 5% do not agree to change the prescription, but the other respondents more comfortable if the Pharmacist changes the prescription because of the Halal / Haram issue. Of all of the respondents, 30% strongly agree and always choose the medicine that has halal. Only 7% of the respondents asked the Pharmacist about the sources of ingredients before accepting the medicines and



47% of respondents choose neutral because they do not talk to the Pharmacist about the sources of ingredients before accepting the medicines. Furthermore, from 100% of respondents, only 11% always used to get information about their medicine sources.

### **The Knowledge About Halal Haram**

Based on the result table 2, the knowledge about halal and haram is above 50%, but some of them do not understand about medicine ingredients. Half of respondent do not check the ingredients of medicine when they are consuming. This result was supported by [Maison et al. \(2018\)](#) that mention the halal label had a limited effect on product perception, specifically health products. The result is related to table 3 that they choose "neutral" to discuss with pharmacies about medicine ingredients, meaning that they do not discuss because doctor and patient gave the prescription want to get the best treatment of health. In this position, the responsible should be on the medical professional such as doctors and pharmacists. According to [Noorizan Abdul Aziz et al. \(2014\)](#), the absence of information on ingredients in the drug market is the most contributing factor that causes the status of halal drugs to be unknown, so pharmaceutical manufacturers, health care professionals are advised to notify, proactively to achieve the goal of using halal drugs.

The information about halal and haram on the medicine product also essential to protect the customer from non-halal ingredients, but the result from the survey, 65% could not found the logo. The influence of the government or Indonesian Law on the Guarantee of Halal Product does not apply to the company's consideration. It is essential to get intention from the government. According to [Daher et al., \(2015\)](#), pharmaceutical company has not certified all their products and medicine ingredients, considering that they need strongly recommends for further resources from pharmaceutical manufacturers to assist patients and pharmacists in choosing a form of medicine within the limits of religious or spiritual beliefs.

Furthermore, there is also the need to add to the existing drug database or other standard sources of information that can identify the drug's origin or excipient in the formulation. In terms of customer care, the clinicians and pharmacists should be proactive and not leave it to the patient to broach the subject. Since patients have the right to make informed decisions about their medical treatment, health care providers must involve the patient when making treatment decisions ([Hoesli et al., 2011](#)). Most of the respondents agree with the halal product guarantee law on the pharmacy product, but unfortunately, only 35% found the halal logo on the packed medicine, meaning that there is no gap between supply and demand on the halal product. This result was similar to [Aziz et al. \(2014\)](#) that mention that the current medicine market is not yet transparent in terms of halal; some of the product did not have a halal logo.

The solution is appropriate reforms to the current legal framework and justifies the effort should be directed to formalize the rules for the manufacture of drugs kosher. The difficulty to find an importer country that already has halal is not a reason that can be used forever because product development must be done for Muslim customers' needs. In Indonesia, UU JPH was established to push the pharmacy industry. However, several reasons are revealed by the company, such as

the government's spare time, an alternative ingredient from the non-available research, certification fee, and certification process that is quite long for each pharmacy products that are very involved in terms of the production process.

According to [Purnamasari et al. \(2015\)](#), to protect the customer from non-halal medicine, the government needs to build UU PJH based on; first the regulation of maqashid sharia principles, honesty principles, and absolute principles in the application of halal and tayyib product guarantee systems. Secondly, strengthening connections and integrating the principles of halal and toyib product guarantees with consumer protection principles in Indonesia. The norms, standards, and guidelines for the operation of *halal and tayyib* product guarantees in Indonesia must be prepared based on the provisions of the Al Quran, Hadith, and MUI fatwa. The standard and guideline must be in harmony with the principles of Indonesian consumer protection law; must be in harmony with the principles of transparency and notifications in the Agreement on Technical Barriers to Trade (TBT Agreement) and the Agreement on Sanitary and Phytosanitary (SPS Agreement) applicable in international trade law. Third, strengthening the values of the wisdom of *halal and tayyib* products in Indonesia optimally and comprehensively by building the religious aspects of the Indonesian consumer protection legal system. Hence, the optimal effort that can be made is keeping the quality and appropriateness of the products for the consumers.

### **The Attitude about Halal Medicine**

Based on the result analysis in Table 3, some respondents choose “neutral” in discussion with the doctor about the perception because they do not understand the sources of their medicine, and they could not judge which medicine is suitable for them. Based on the survey, respondents still prefer halal medicine and try to discuss the medicine with a Pharmacist, meaning that they still need to discuss whether halal medicine is suitable for them.

This result was similar to Saleha (2014), and also [Sadeeqa, Sarriff, Masood, & Farooqui \(2013\)](#) which mention customer mostly could not judge which medicine is suitable for them, then the physician role to choose the most suitable medication for his patient keeping in mind the religious beliefs of the patient as well. Meanwhile, physicians or doctors have not had any fixed agreements on halal certification. It means that customer intention is not about halal or haram, but they want to be healthy, and most follow the doctor's prescription. Some of them are still willing to buy medicines from pharmacy companies even though the medicines have not halal-certified yet; this condition because halal medicine is minimal. Physicians have a right to choose the most suitable medicine for their patients and consider patient's religious beliefs. This argument in line with a previous study that the physician's opinion becomes an essential factor in medical reason ([Sadeeqa, Sarriff, Masood, Atif, et al., 2013](#)). Medicine prescription should be revamped using halal alternative perspectives to improve compliance and protect customer Muslim from haram, also increase Muslim friendly hospitality and Syariah compliant pharmacy practice. On the non-Muslim country also preferences for cultural modifications in healthcare ([Padela et al., 2012](#)).

Based on statement number 5, that customer will prefer to halal medicine if the medicine has a halal logo or the pharmacy give clear information about halal or haram. This result support by research conduct by [Sadeeqa et al. \(2014\)](#), who mentions that halal medicines and drug companies should label the medicines with 'Halal' or 'non-Halal' logo for the convenience of the public. Furthermore, question number 7 about the attitude to asking the material ingredient on the medicine to Pharmacist, the respondent chose "neutral" because the customer cannot judge the doctor's perception. In consumer mind, pharmacies and physicians must understand patient values, including patient priorities, life philosophy, and their background so that patients will discuss more than just values related to treatment options and prescriptions that are suitable with values ([Lee et al., 2013](#)). Indeed, pharmacy healthcare and practitioners must enhance their knowledge, attitude, and practice towards halal medicines ([Basari, 2019](#)). This skill must develop since they are studying at the university and should understand the cultural religion sensitivity; this was support by [Kawaguchi-Suzuki et al. \(2019\)](#) that they mention essential to understand and respect the culture to enrich these interactions. Religious beliefs, sentiments, or ethnocentricity have formed the social norms and values that play a vital role in the decision-making process of halal medicine-taking. Healthcare practitioners should empower patients to choose their halal medicines, thus improving their compliance and reducing unnecessary medicine errors (haram).

## CONCLUSION

Most student of Islamic Economics at East Java Indonesia are agree with halal medicine but only several customers that always buy halal medicine. In terms of their knowledge and attitude, the most student have knowledge in halal, but the attitude to implement halal medicine is not easy, due to its related to Physician decision to the patient and the producer of medicine still not guarantee the halal medicine for the costumer. The demand for halal medicine could push the producer to create alternative medicine for Muslims who care about halal. Suggestion for government is to implied UU JPH more seriously due to protecting the Muslim customers in Indonesia; for the pharmacy industry, developing alternative medicine that is friendly to Muslims is mandatory.

## REFERENCES

- Adisasmito, W. (2008). Analisis Kebijakan Nasional MUI dan BPOM dalam Labeling Obat dan Makanan. In *Case Study: Analisis Kebijakan Kesehatan*. <https://staff.blog.ui.ac.id/wiku-a/files/2013/04/kebijakan-nasional-mui-dan-bpom-dalam-labeling-obat-dan-makanan.pdf>
- Al-Qaradawi, Y. (2007). *The Lawful and Prohibited in Islam*. Al-Falah Foundation.
- Aminuddin, M. Z. (2017). Sertifikasi Produk Halal: Studi Perbandingan Indonesia dan Thailand. *SHAHIH: Journal of Islamicate Multidisciplinary*, 1(1), 27. <https://doi.org/10.22515/shahih.v1i1.52>

- Aziz, Noorizan Abdul, Majdina, H., Hassan, Y., Zulkifly, H. H., Wahab, M. S. A., Aziz, M. S. A., Yahaya, N., & Razzaq, H. A. A. (2014). Assessment of the Halal Status of Respiratory Pharmaceutical Products in a Hospital. *Procedia - Social and Behavioral Sciences*, 121(September 2012), 158–165. <https://doi.org/10.1016/j.sbspro.2014.01.1117>
- Aziz, Norazlina Abdul, Ibrahim, I., & Raof, N. A. (2014). The Need for Legal Intervention within the Halal Pharmaceutical Industry. *Procedia - Social and Behavioral Sciences*, 121(September 2012), 124–132. <https://doi.org/10.1016/j.sbspro.2014.01.1114>
- Basari, H. (2019). New Frontiers in Halal Pharmaceuticals. *International Journal of Research in Pharmaceutical Sciences*, 10(SPL1). <https://doi.org/10.26452/ijrps.v10iSPL1.1687>
- Boddy, C. R. (2016). Sample size for qualitative research. *Qualitative Market Research: An International Journal*, 19(4), 426–432. <https://doi.org/http://dx.doi.org/10.1108/QMR-06-2016-0053>
- Bonett, D. G. (2002). Sample Size Requirements for Testing and Estimating Coefficient Alpha. *Journal of Educational and Behavioral Statistics*, 27(4), 335–340. <https://doi.org/10.3102/10769986027004335>
- Creswell, J. W., & Creswell, J. D. (2017). *Research designs: Qualitative, quantitative, and mixed methods approaches*. Sage Publications.
- Daher, M., Chaar, B., & Saini, B. (2015). Impact of patients' religious and spiritual beliefs in pharmacy: From the perspective of the pharmacist. *Research in Social and Administrative Pharmacy*, 11(1), 31–41. <https://doi.org/10.1016/j.sapharm.2014.05.004>
- Department of Islamic Development Malaysia. (2005). *Manual procedure of halal certification Malaysia*. Department of Islamic Development Malaysia Kuala Lumpur.
- Eliasi, J. R., & Dwyer, J. T. (2002). Kosher and Halal: religious observances affecting dietary intakes. *Journal of the Academy of Nutrition and Dietetics*, 102(7), 911. [https://doi.org/10.1016/S0002-8223\(02\)90203-8](https://doi.org/10.1016/S0002-8223(02)90203-8)
- Ellen, S. (2012). *Slovin's formula sampling techniques*. Dryden Press.
- Fischer, J. (2008). Religion, science and markets. *EMBO Reports*, 9(9), 828–831. <https://doi.org/10.1038/embor.2008.156>
- Hakim, A. L. (2015). Dissecting The Contents of Law of Indonesia on Halal Product Assurance. *Indonesia Law Review*, 5(1), 88–103. <https://doi.org/10.15742/ilrev.v5n1.135>
- Halim, M. A. A., Salleh, M. M. M., Kashim, M., Ahmad, A. A., Nordin, N., & Others. (2014). Halal pharmaceuticals: legal, shari'ah issues and fatwa of drug, gelatine and alcohol. *International Journal of Asian Social Science*, 4(12), 1176--1190. <https://doi.org/10.18488/journal.1>
- Hoesli, T. M., Smith, K. M., & Others. (2011). Effects of religious and personal beliefs on medication regimen design. *Orthopedics*, 34(4), 292–295. <https://doi.org/10.3928/01477447-20110228-17>

- Husni, P., Putriana, N. A., & Wicaksono, I. A. (2017). Metode Deteksi Kandungan Babi dan Alkohol dalam Eksiipien Farmasi dan Produk Obat untuk Menjamin Kehalalan Sediaan Obat. *Majalah Farmasetika*, 2(1), 1–7. <https://doi.org/10.24198/farmasetika.v2i1.12653>
- Hussein, A. (2009). The use of triangulation in social sciences research: Can qualitative and quantitative methods be combined. *Journal of Comparative Social Work*, 1(8), 1–12. <https://doi.org/10.31265/jcsw.v4i1.48>
- Kawaguchi-Suzuki, M., Hogue, M. D., Khanfar, N. M., Lahoz, M. R., Law, M. G., Parekh, J., Zairina, E., Hong, J., Robles, Y. R., & Van Thang, V. (2019). Cultural Sensitivity and Global Pharmacy Engagement in Asia: India, Indonesia, Malaysia, Philippines, and Vietnam. *American Journal of Pharmaceutical Education*, 83(4). <https://doi.org/10.5688/ajpe7215>
- Kordnaeij, A., Askaripoor, H., & Bakhshizadeh, A. (2013). Studying affecting factors on customers' attitude toward products with halal brand (case study: Kuala Lumpur Malaysia). *International Research Journal of Applied and Basic Sciences*, 4(10), 3138--3145. [http://www.irjabs.com/files\\_site/paperlist/r\\_1117\\_130816235418.pdf](http://www.irjabs.com/files_site/paperlist/r_1117_130816235418.pdf)
- Krasniqi, M., & Krasniqi, D. (2014). Attitudes and Costumer Behaviour. *European Journal of Social Science Education and Research*, 1(2), 98--104. <https://doi.org/10.26417/ejser.v2i1.p98-104>
- Lada, S., Tanakinjal, G. H., & Amin, H. (2009). Predicting intention to choose halal products using theory of reasoned action. *International Journal of Islamic and Middle Eastern Finance and Management*, 2(1), 66–76. <https://doi.org/10.1108/17538390910946276>
- Lee, Y. K., Low, W. Y., & Ng, C. J. (2013). Exploring patient values in medical decision making: a qualitative study. *PloS One*, 8(11). <https://doi.org/10.1371/journal.pone.0080051>
- Maison, D., Marchlewska, M., Syarifah, D., Zein, R. A., & Purba, H. P. (2018). Explicit Versus Implicit “Halal” Information: Influence of the Halal Label and the Country-of-Origin Information on Product Perceptions in Indonesia. *Frontiers in Psychology*, 9, 382. <https://doi.org/10.3389/fpsyg.2018.00382>
- Maulidia, R. (2013). Urgensi Regulasi Dan Edukasi Produk Halal Bagi Konsumen. *Justicia Islamica*, 10(2), 359–390. <https://doi.org/10.21154/justicia.v10i2.153>
- Mohezar, S., Zailani, S., & Tieman, M. (2016). Tapping into the halal pharmaceutical market: issues and challenges. In Contemporary Issues and Development in the Global Halal Industry. In *Contemporary Issues and Development in the Global Halal Industry* (pp. 531--541). Springer. [https://doi.org/10.1007/978-981-10-1452-9\\_48](https://doi.org/10.1007/978-981-10-1452-9_48)
- Padela, A. I., Gunter, K., Killawi, A., & Heisler, M. (2012). Religious values and healthcare accommodations: voices from the American Muslim community. *Journal of General Internal Medicine*, 27(6), 708--715. <https://doi.org/10.1007/s11606-011-1965-5>
- Pathak, V., Jena, B., & Kalra, S. (2013). Qualitative research. *Perspectives in Clinical Research*, 4(3). <https://doi.org/10.4103/2229-3485.115389>

- Prabowo, A., Wirjodirdjo, B., & Vanany, I. (2012). Analisis Kebijakan Penggunaan Obat Generik di Indonesia serta Dampaknya pada Biaya Belanja Obat Masyarakat ( Studi Kasus pada Obat Penyakit Diabetes Menggunakan Pendekatan Sistem Dinamik). *Jurnal Teknik ITS*, 1(1), 592–594. <https://doi.org/10.12962/j23373539.v1i1.2152>
- Pujari, N. M., Sachan, A. K., Kumari, P., & Dubey, P. (2016). Study of Consumer's Pharmaceutical Buying Behavior Towards Prescription and Non-Prescription Drugs. *Journal of Medical and Health Research*, 2016(01), 3–0. <http://epixpub.com/jmhr/index.php>
- Purnamasari, T. I., Hawin, M., & Anshori, A. G. (2015). *Pengaturan Bentuk-bentuk Perlindungan Konsumen dalam Penyelenggaraan Jaminan Produk Halal Dan Tayib Di Indonesia*. Universitas Gadjah Mada.
- Rajagopal, S., Ramanan, S., Visvanathan, R., & Satapathy, S. (2011). Halal certification: implication for marketers in UAE. *Journal of Islamic Marketing*, 2(2), 138–153. <https://doi.org/10.1108/17590831111139857>
- Regenstein, J. M., Chaudry, M. M., & Regenstein, C. E. (2003). The kosher and halal food laws. *Comprehensive Reviews in Food Science and Food Safety*, 2(3), 111–127. <https://doi.org/10.1111/j.1541-4337.2003.tb00018.x>
- Sadeeqa, S. (2014). Assessment of KAP Among Hospital Pharmacists. *Value in Health*, 17(7), A754. <https://doi.org/10.1016/j.jval.2014.08.219>
- Sadeeqa, S., Sarrif, A., Masood, I., Saleem, F., & Atif, M. (2014). Knowledge, Attitude and Perception (KAP) Regarding Halal Pharmaceuticals among General Public in Penang State of Malaysia. *International Journal of Public Health Science (IJPHS)*, 2(4). <https://doi.org/10.11591/ijphs.v2i4.4226>
- Sadeeqa, S., Sarriff, A., Masood, I., Atif, M., & Farooqi, M. (2013). Evaluation of knowledge, attitude, and perception regarding Halal pharmaceuticals, among general medical practitioners in Malaysia. *Archives of Pharmacy Practice*, 4(4), 139. <https://doi.org/10.4103/2045-080X.123209>
- Sadeeqa, S., Sarriff, A., Masood, I., & Farooqi, M. (2013). Knowledge, attitude and perception regarding halal Pharmaceuticals among academicians in various universities of Malaysia. *International Journal of Educational Research and Development*, 2(8), 191–202. [https://www.researchgate.net/profile/Imran\\_Masood/publication/259106465\\_Knowledge\\_attitude\\_and\\_perception\\_regarding\\_Halal\\_Pharmaceuticals\\_among\\_academicians\\_in\\_various\\_universities\\_of\\_Malaysia/links/550968ce0cf26ff55f856d48.pdf](https://www.researchgate.net/profile/Imran_Masood/publication/259106465_Knowledge_attitude_and_perception_regarding_Halal_Pharmaceuticals_among_academicians_in_various_universities_of_Malaysia/links/550968ce0cf26ff55f856d48.pdf)
- Soesilowati, E. S. (2010). Business opportunities for halal products in the global market: Muslim consumer behaviour and halal food consumption. *Journal of Indonesian Social Sciences and Humanities*, 3, 151–160. <https://doi.org/10.14203/jissh.v3i1.50>
- Tejada, J. J., & Punzalan, J. R. B. (2012). On the misuse of Slovin's formula. *The Philippine Statistician*, 61(1), 129–136.
- Vahdati, H., Mousavi, N., Tajik, Z. M., & Others. (2015). The study of consumer perception on corporate social responsibility towards consumers attitude and purchase behavior. *Asian Economic and Financial Review*, 5(5), 831–845. <https://doi.org/10.18488/journal.aefr/2015.5.5/102.5.831.845>

Wilson, J. A., & Liu, J. (2011). The challenges of Islamic branding: navigating emotions and halal. *Journal of Islamic Marketing*, 2(1), 28–42. <https://doi.org/10.1108/17590831111115222>