Patient satisfaction with Indonesian Sharia hospital services: 
Halal healthcare tool and implications for loyalty-WoM

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Abstract

Purpose – Analyze the psychology of patients related to halal healthcare tools that impact their loyalty intentions to Sharia hospitals in Indonesia for health visits and the implications of word of mouth on the community.

Methodology – The research employed quantitative techniques by utilizing cross-sectional survey information gathered from Sharia hospital patients in Indonesia, selected through convenience sampling methods. The study analyzed a total of 229 patient responses through the application of structural equation modeling.

Findings – Sharia facilities, doctor-nurse services, medical expertise, and administrative conduct as indicators of halal health services affect patient satisfaction in Sharia hospitals. However, there is resistance to the influence of the medical facility atmosphere on satisfaction caused by the concentration of patients in medical services and solving health problems. Patient satisfaction affects loyalty which in turn gives a positive word-of-mouth effect.

Implications – Islamic hospitals should prioritize patient assessment and satisfaction by reviewing their physical facilities, cleanliness, comfort, and spiritual needs. Medical personnel should enhance communication and Sharia-compliant practices. Digitalization and improved service standards are essential, requiring adaptability and technology integration. Regular evaluations and external monitoring are vital. The government should collaborate with relevant ministries and organizations to intensively monitor and improve the quality of Sharia hospitals.

Originality – This study develops new knowledge on indicators of special services for Sharia hospitals according to halal standards by integrating the outputs of satisfaction, loyalty, and Word of Mouth (WoM) outputs which have been separated so far but have a chronological sequence in line with existing marketing theory.

Cite this article:

Introduction

The halal industry has become the global mainstream, and the concept of halal has expanded, focusing on products and services. Different from halal products, halal services are much more challenging to identify based on the characteristics of intangible services. Mohd Roslin (2008) and Ruangsiriroj (2022) emphasize that halal services are built on "halal aspects of behavior, activities, and operations that do not violate or contradict the teachings of Islam, are carried out and carried out with faith, dedication, and integrity, as well as following the rules or principles of sharia,
reducing difficulties, and generating welfare or benefits for humans (society), planet (environment), profit (economy), and ultimately the desire to achieve the pleasure of Allah” (Mohd Roslin & Abu, 2008; Ruangsriroj & Suvittawat, 2022). It describes a universally acceptable and high standard of service for the greater good that is also inclusive. With its inclusivity, halal services have the potential to create high market demand.

Indonesia, as a country with the largest Muslim population in the world, has a strong influence from Islamic values, even though it does not apply constitutions and laws based on Islam (Mubarok & Imam, 2020). The awareness that has begun to arise in the world community and Indonesia in particular of the importance of applying Islamic values in all aspects of life in this decade has made some Muslims realize how important it is to follow Sharia. Indonesia's Sharia middle-class market is mushrooming to various products and services. Both public services to religious and spiritual services such as Umrah, halal cosmetics, schools, and many more phenomena can be discussed clearly (Noorliza, 2021). Another demand for Muslim consumers is the availability of Sharia-compliant health services, which are primary public services.

The establishment of Sharia principles is not only limited to food but also emphasizes all aspects of Muslim life. Sharia hospitals are connected to other industrial sectors in the Halal environment, including providing halal food, Sharia financing, and other Sharia service standards. Sharia hospitals also act as actors in the ecosystem, including health workers and service development such as halal medical tourism and hospitality (Windasari et al., 2023). According to the Global Islamic Economy report, global Muslim spending in 2021 increased in all sectors, including halal food, Islamic finance, travel tourism, modest fashion, halal pharmaceuticals, cosmetics, and the media sector (Zailani et al., 2018). The health industry only includes medicines, while Islamic hospitals involve many sectors in the halal industry. Therefore, classifying Islamic hospitals and medicines into one sector, such as “halal health services,” will confuse.

The hospital sector faces the challenge of strengthening the health system after the COVID-19 pandemic and the catastrophic epidemiological transition along with people's lifestyles with three main challenges: digital medical transformation in the era of the industrial revolution 4.0, quality of health services, and security of integrated hospital information systems. Increasingly, patients will bring multifaceted demand for complete health services, both BPJS Health insurance patients and general patients (Dhamanti et al., 2022; Ratnawati & Kholis, 2019). Therefore, hospitals as advanced health service institutions must maintain the quality of services by providing the desired health care following current professional medical knowledge covering all aspects of service quality that affirm the quality of health services beyond religious beliefs. The concept of Sharia hospitals in Indonesia has become a new mode of reforming the national and global health systems. This health facility has existed for a long time and is spread in various regions of Indonesia. This is reflected in using Islamic terms in hospital names such as Rumah Sakit Islam, RS Aisyiyah, RS PKU Muhammadiyah, RS Wathan, and Hidayullah Hospital. In addition, some use Arabic in their naming, such as Hidayullah Hospital, Nur Hidayah Hospital, An Nisa Hospital, and others, as well as hospitals managed by religious organizations such as PKU Muhammadiyah, NU Hospital, and others (Ratnawati et al., 2021). Sharia hospitals in Indonesia received a positive response from the public. Currently, the number of hospitals that have received Sharia certification until 2022 reaches 72 units throughout Indonesia, from Sabang to Merauke.

Sharia hospitals in Indonesia offer Muslim-friendly medical practices, products, and services. However, the market share of Islamic hospitals still needs to expand due to the lack of business strategy (Sulistiaadi et al., 2022). Observing this situation, it becomes interesting to examine the quality of medical services from an Islamic point of view. Previous research on this topic has focused more on general discussions about the quality of general medical care (Asnawi et al., 2019; Coutinho & Prasad, 2022; Nugrahana, 2020; Rahman et al., 2021, 2023; Shie et al., 2022; Zhang et al., 2018). However, there needs to be more knowledgeable about the market for Islamic-friendly medical services, especially in this case, the indicators of special services of Sharia hospitals according to halal standards, satisfaction, and loyalty intentions towards medical services in Islamic hospitals. In addition, some international literature needs to integrate a complete construct in assessing the output of satisfaction and loyalty: Word of Mouth. So this study aims to analyze the
psychology of patients related to halal healthcare tools that impact their loyalty intentions to Sharia hospitals in Indonesia for health visits and the implications of word of mouth on the community.

**Literature Review**

**Sharia Hospital**

Sharia hospitals refer to Islamic Sharia principles in providing health services to patients. These principles include meeting the needs of patients in a halal way, avoiding forbidden things, and considering Islamic ethics and values in carrying out medical practice (Maharani et al., 2021; Yasmeenela, 2020). Maksum et al. (2022) stated that Sharia hospitals pay more attention to religious aspects in providing health services so that patients who come to this hospital will feel comfortable and calm because Islamic values can be applied in their treatment (Maksum et al., 2022). While Rahman et al. (2018) stated that Sharia hospitals could provide more comprehensive and sustainable health services because they focus on physical and the patient's psychological and spiritual aspects (Rahman et al., 2018). Sharia hospitals can be a good alternative for Muslim communities seeking health services because they can meet health needs in a Sharia manner and have skilled and competent medical personnel.

Sharia hospitals also prioritize quality services, including providing holistic and integrated care and paying attention to patients' spiritual and psychological aspects (Aisyah Ismail et al., 2018). Some Sharia hospitals also provide health programs packaged within the framework of Islamic teachings, such as Quran therapy and prayer therapy (Ningtyas et al., 2022). Although based on Islamic principles, Sharia hospitals remain open to serving everyone regardless of religion, race, or gender (Syofwan et al., 2020). Therefore, they offer a friendly and inclusive service for all patients.

The Sharia Health Industry is an ecosystem involving not only Sharia Health service providers such as hospitals but also facility providers such as medical devices, drugs, and pharmaceuticals (Naserirad et al., 2022). In the current Halal ecosystem, Sharia-competent hospitals are related to several other industrial sectors, including halal pharmaceuticals, halal food and beverages provided in hospitals, and human resources in the ecosystem, such as health workers as extended service opportunities such as Halal medical travel and hospitality services (Zawawi & Othman, 2018). The expenditure of patients from Indonesia who seek health services and hospitals abroad reaches Rp 100 trillion every year (Mohezar et al., 2017). Regarding finance and financing, Sharia hospitals can also be developed with the waqf mechanism contained in the Islamic Social Fund.

Indonesia is currently a developing country and is faced with the issue of improving the quality of health. According to 2019 Global Health Security Index data, Indonesia ranks 30th out of 195 countries (Habibie et al., 2017). This shows that the level of health in Indonesia is good. Sharia health services primarily aim to provide significant benefits to the ummah. In this case, Ummah is defined as Muslims and the entire population because ummah in Arabic means society or nation (Syamsiyah & Ardana, 2022). Likewise, Sharia health services are inclusive for everyone, not limited to certain religious beliefs, but open. They can be used for all groups by prioritizing good values and better quality (Zailani et al., 2016).

Islamic health services that apply Sharia principles have been on the agenda for a long time. The problem usually raised is how to implement Islamic values in health management and services in hospitals and the problems that will arise with the existence of Islamic religious values that are trying to be internalized (Mohammadi et al., 2019). Islamic social organizations have established many hospitals in Indonesia (Wardhani et al., 2019).

With many public requests related to implementing Sharia values in health services, in 2015, the Indonesian Islamic Health Efforts Council (MUKISI), together with DSN-MUI, began to take the initiative to formulate how hospitals can describe Sharia operations in their activities (Adinugraha et al., 2021). The meeting between MUKISI and DSN MUI was intensely held in Bogor on 8-10 February 2016 to decide what kind of policy could sustain the good mission. Then fatwa 107/DSN-MUI/X/2016 was created concerning Guidelines for the Implementation of Hospital Management based on Sharia Principles (Rizqon et al., 2020). With the Standards jointly
formulated by the Hospital management by MUKISI in 2019, the hospital began to transform to apply Sharia principles.

There are six global aspects of Sharia competent services, or Islamic service quality dimensions (1). General Islamic values, 2). Halal/haram, 3). Attention to Islamic religious activities, 4). Honesty, 5). Modesty and humaneness, 6). Trustworthiness (Maksum et al., 2022; Windasari et al., 2023). With an emphasis on aspects of Sharia value, Sharia-competent hospitals are expected to have unique value propositions and competitive advantages for consumers to consider. Furthermore, regulators and providers must understand what factors are critical to patient healthcare decisions (Mardiyati & Ayuningtyas, 2021).

Underpinning Theory

In healthcare, many studies focus on the quality of care that patients feel (Cui et al., 2020). This study uses the anticipation-disconfirmation theory to explore patient satisfaction with halal health services and word of mouth (WOM). This study identifies hospital halal health attributes to determine patient satisfaction, loyalty, and WOM to halal health services in Sharia hospitals. Like service quality, the expectation-disconfirmation paradigm has been widely used to interpret satisfaction constructs (Yasin et al., 2017). Like service quality, the expectation-disconfirmation paradigm has been widely used to interpret satisfaction constructs. Consumer happiness is based on internal determinants of the customer and perceived performance. According to this paradigm, the difference between previous expectations and product performance can influence customer dissatisfaction or dissatisfaction (Al-Borie & Sheikh Damanhour, 2013). Put, customers might recommend the service to others if they are satisfied. In the context of halal healthcare, Muslim patients' expectations regarding a hospital's halal attributes may impact their satisfaction with their care, reflecting loyalty and WOM to others (Rahim et al., 2021).

Ramesh et al. (2020) express satisfaction-disconfirmation of the impact of consumer feelings and behaviors regarding product quality (Ramesh et al., 2020). Parasuraman (2005) forms a "gap measure" to compare how customers perceive a service with how they anticipate its performance, either by pleasure or disappointment (Parasuraman et al., 2005). In the aspect of halal health, the desire of patients to have health facilities based on halal principles can affect their satisfaction with healthcare providers' provision of health facilities (Medhekar & Haq, 2018; Naserirad et al., 2022; Rahman et al., 2023; Widiasih et al., 2020). Aladwan (2021) and Nugraha (2020) imply loyalty and WOM valuation of healthcare products and services regarding significance/insignificance and benefits/disadvantages (Aladwan et al., 2021; Nugraha, 2020). Previous literature has found a link between healthcare and loyalty and WOM.

Hypotheses Development

Some previous studies identified halal facilities for healthcare, including sharia facilities, doctor's facilities, nursing services, medical expertise, medical facility atmosphere, and administrative conduct (Medhekar & Haq, 2018; Naserirad et al., 2022; Ningtyas et al., 2022; Padela et al., 2012; Rahman et al., 2023).

Sharia facilities consist of Islamic principles and practices. Sharia is derived from Islamic legal sources (such as the Al-Qur'an and Hadist) (Medhekar & Haq, 2018; Naserirad et al., 2022). The argument given is that Sharia facilities include prayer facilities, such as masala with prayer mats and copies of the Qur'an, Islamic TV channels, alcohol-free minibars, gender-specific spa facilities, female household services and room staff, halal food, Mecca directions indicated in rooms, prayer times as per local time zones, and maps showing the location of nearby mosques and local halal restaurants. In general, the main goal of doctors and nurses is to help patients. The characteristics of a good man and doctor are described in the Qur'an and Al-Hadist (Naserirad et al., 2022; Rahman et al., 2023). Therefore, Muslim medical practitioners who follow the guidelines of these two sources of Islamic law will have characteristics that follow the character of well-ethical doctors and nurses.

Various medical devices today make it easier for health facilities for patients and doctors. Therefore, Islam allows health care with various techniques unless the treatment is of high essence
or the device has content or indicators contrary to Sharia (Ningtyas et al., 2022). Hospitals should ensure a healthy and comfortable environment, including infection control, personal hygiene, clean water, and good hospital ventilation. This facility will prevent risk for patients and health facility visitors (Rahman et al., 2023).

Administrative conduct in hospitals is essential in providing quality medical care services. For management actions and productivity to be improved, hospitals are advised to improve their medical care process management approach from the manufacturing sector (Padela et al., 2012). Maksum et al. (2022) apply a lean thinking approach in health services to ensure quality health service management in hospitals. This approach is essential to consider human and biotechnological factors in the safety of the treatment and socio-technical aspects of the system (Maksum et al., 2022). Performance evaluation in medical care is critical for healthcare providers and patients because a successful outcome will satisfy all stakeholders. Rizqon et al. (2020) argue that healthcare providers should provide quality medical care to satisfy patients. Since satisfaction is a significant factor, healthcare providers should know about quality medical care and provide well-trained medical doctors (Rizqon et al., 2020). Rocha de Carvalho et al. (2016) argue that government policymakers have placed patient satisfaction at the core of a measurable assessment process for physician facility assessment (Rocha de Carvalho et al., 2016).

Patient loyalty can drive a positive word about the hospital because loyal patients are more likely to have positive experiences and outcomes with the hospital (Zhang et al., 2018). Patients with positive experiences are more likely to share their experiences with others through direct communication or online reviews and social media (Nugraha, 2020). Loyal patients also tend to have a stronger emotional connection with the hospital and its staff, which can increase their motivation to spread positive news. They may feel gratitude to the hospital for providing high-quality care and personalized attention and want to share their positive experiences with others who might benefit from the same care. In addition, patients loyal to a particular hospital tend to develop trust in the hospital's brand and reputation over time. They may have many positive experiences with the hospital and its staff, which can strengthen their confidence and confidence in the hospital's ability to provide high-quality care.

The literature review above forms a conceptual model proposal in Figure 1 that describes the quality of halal health services, satisfying patients and building their loyalty in receiving further care, as well as the influence of word-of-mouth recommendations on health services in Indonesian sharia hospitals.

![Figure 1. Research Conceptual Model](image.png)

Eight hypotheses were proposed in this study, with the following details:

H1: Sharia facilities have a significant effect on patient satisfaction.
H$_1$: Doctor's services have a significant effect on patient satisfaction.
H$_2$: Nursing services have a significant effect on patient satisfaction.
H$_3$: Medical expertise has a significant effect on patient satisfaction.
H$_4$: Medical facility atmosphere has a significant effect on patient satisfaction.
H$_5$: Administrative conduct has a significant effect on patient satisfaction.
H$_6$: Patient satisfaction has a significant effect on patient loyalty.
H$_7$: Patient loyalty has a significant effect on word of mouth.

**Research Methods**

This study used quantitative research methods by taking cross-sectional survey data from Sharia hospital patients in Indonesia. The survey was conducted using convenience sampling techniques to select available sites, easy to reach and willing to participate in the study. The minimum sample of this study follows the opinion of Heir et al. (2017) that the SEM model is very sensitive to the number of samples, so the sample of this study will require referring to the criteria proposed by Heir et al. (2017), namely with the Maximum Likelihood Estimation (MLE) technique. A good sample count, according to MLE, ranges from 100-200 samples (Hair Jr. et al., 2017).

Despite the potential for selection errors and data collection bias, convenience sampling is the best method for selecting research respondents. However, the criteria are set where you must have undergone hospitalization on the list of Sharia hospitals registered in Indonesia in the questionnaire sheet. Information is collected in an anonymous and limited manner to ensure confidentiality, where written and verbal permission is obtained from respondents. Questionnaire delivery is carried out via the Internet and delivered politely so that all questions in the survey can be answered thoroughly. The measurement method in this study was taken from the literature review results. A type of Likert scale measurement was used with five choices to carry out this study. Table 1 further illustrates the operational definition in the measurement of each variable.

This study utilizes the Structural Equation Modeling (SEM) method based on Partial Least Square (PLS). Data processing is done through the SmartPLS 3.3.3 application. PLS is an effective analytical technique because it does not rely on many assumptions (Becker et al., 2023). The PLS approach is free from distribution (not tied to certain types of data, such as normal, category, ordinal, interval, and ratio) using bootstrapping methods or random doubling so that data normality is not an issue (Hair Jr. et al., 2017). In addition, PLS does not require a minimum number of samples for research, so even studies with small samples can use PLS techniques. PLS is categorized as non-parametric, so there is no need for standard distribution assumptions in PLS modeling (Sarstedt et al., 2017).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Builder Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sharia Facilities</td>
<td>The hospital provides Mushaf Al-Quran facilities</td>
<td>(Medhekar &amp; Haq, 2018; Naserirad et al., 2022)</td>
</tr>
<tr>
<td></td>
<td>The hospital makes halal food and beverage products for patients.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The hospital has a prayer room for the patient’s family in each patient's ward.</td>
<td></td>
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<tr>
<td></td>
<td>The hospital has prepared prayer equipment.</td>
<td></td>
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<tr>
<td></td>
<td>The hospital provides a stream of ablution water for prayer purposes.</td>
<td></td>
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<tr>
<td></td>
<td>There is a Qibla direction marker in each patient room.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Patient TV provides Islamic broadcasts.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>There are spiritual services that visit every room.</td>
<td></td>
</tr>
<tr>
<td>Doctor's Services</td>
<td>The doctor seeks to respond to the patient’s request.</td>
<td>(Naserirad et al., 2022; Rahman et al., 2023)</td>
</tr>
<tr>
<td></td>
<td>Doctors try to use halal medical products.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The doctor conveys positive sympathy to the</td>
<td></td>
</tr>
<tr>
<td>Variable</td>
<td>Indicator</td>
<td>Builder Reference</td>
</tr>
<tr>
<td>---------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td><strong>Nursing Services</strong></td>
<td>Nurses are ready to help patients in all conditions.</td>
<td>(Naserirad et al., 2022; Rahman et al., 2023)</td>
</tr>
<tr>
<td></td>
<td>Nurses are very swift in serving patient requests.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nurses glorify Islamic values and principles.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The nurse sympathized with my situation.</td>
<td></td>
</tr>
<tr>
<td><strong>Medical Expertise</strong></td>
<td>The hospital has state-of-the-art medical equipment.</td>
<td>(Ningtyas et al., 2022)</td>
</tr>
<tr>
<td></td>
<td>The hospital provides services on time.</td>
<td></td>
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<td></td>
<td>The hospital strives to fulfill promises of service commitment.</td>
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<td></td>
<td>The hospital has an excellent administrative record system.</td>
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<tr>
<td></td>
<td>The hospital has a good consulting room.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The hospital has facilities that are operating normally.</td>
<td></td>
</tr>
<tr>
<td><strong>Medical Facility</strong></td>
<td>The hospital has a clean building condition.</td>
<td>(Rahman et al., 2023)</td>
</tr>
<tr>
<td><strong>Atmosphere</strong></td>
<td>The hospital has a safe and clean waiting room.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The hospital has a waiting area that has little potential to pile up.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The hospital is located in an easily accessible location.</td>
<td></td>
</tr>
<tr>
<td><strong>Administrative Conduct</strong></td>
<td>Hospital administration procedures are not complicated.</td>
<td>(Padela et al., 2012)</td>
</tr>
<tr>
<td></td>
<td>Hospital administration staff respect patient rights.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The hospital administrative staff is very polite.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The hospital staff treated me with respect.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The hospital administration system is high-speed.</td>
<td></td>
</tr>
<tr>
<td><strong>Patient Satisfaction</strong></td>
<td>Satisfaction with medical care</td>
<td>(Cui et al., 2020)</td>
</tr>
<tr>
<td></td>
<td>Satisfaction with feelings of security</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction with medical personnel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The success of medical personnel gives a sense of security to patients.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction of getting a spiritual wash from Muslim clergy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Satisfaction with the fulfillment of spiritual facilities and equipment</td>
<td></td>
</tr>
<tr>
<td><strong>Patient Loyalty</strong></td>
<td>Intention to return for access to health services</td>
<td>(Zhang et al., 2018)</td>
</tr>
<tr>
<td></td>
<td>The intention of a return visit is for reasons of the professionalism of Muslim medical personnel.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The intention of the return visit is for reasons of Islamic philosophical firmness.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intention to return for reasons of halal medicinal ingredients</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intention to return for reasons of clarity of treatment results</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ongoing visit intention</td>
<td></td>
</tr>
<tr>
<td><strong>Word of Mouth</strong></td>
<td>Intention to continue to receive halal health services from Sharia hospitals</td>
<td>(Nugraha, 2020)</td>
</tr>
<tr>
<td></td>
<td>Intention to recommend sharia hospital to others</td>
<td></td>
</tr>
<tr>
<td></td>
<td>WOM's intention to spread positive news about hospital halal health services</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Intention to recommend sharia hospital to family</td>
<td></td>
</tr>
</tbody>
</table>
Results and Discussion

Characteristic of Respondents

Data collection through an online survey for three months (February-April 2023) using convenience sampling techniques resulted in 229 respondents. The age of respondents of Sharia hospital patients is primarily women, although the comparison is not too far with men. The age of the majority of respondents was between 29-38 years. Besides that, most respondents in this study came from the island of Java. The patient's medical goals found that 77% of respondents visited Sharia Hospital to solve health problems in specialist medicine such as Obgyn, Internal Medicine, Surgery, Neurology, Pulmonology, etc. The source of patient financing for access to health is mainly the Indonesia Social Security Agency of Health (Badan Penyelenggara Jaminan Social, BPJS Kesehatan). Table 2 illustrates in more detail the results of descriptive data tabulation.

Table 2. Characteristic of Respondents

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Type</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>104</td>
<td>45%</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>125</td>
<td>55%</td>
</tr>
<tr>
<td>Age</td>
<td>18-28</td>
<td>46</td>
<td>20%</td>
</tr>
<tr>
<td></td>
<td>29-38</td>
<td>92</td>
<td>40%</td>
</tr>
<tr>
<td></td>
<td>39-48</td>
<td>79</td>
<td>35%</td>
</tr>
<tr>
<td></td>
<td>Above 48</td>
<td>12</td>
<td>5%</td>
</tr>
<tr>
<td>Region</td>
<td>Sumatera</td>
<td>32</td>
<td>14%</td>
</tr>
<tr>
<td></td>
<td>Jawa</td>
<td>138</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Kalimantan</td>
<td>25</td>
<td>11%</td>
</tr>
<tr>
<td></td>
<td>Bali-Nusa Tenggara</td>
<td>11</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Sulawesi</td>
<td>23</td>
<td>10%</td>
</tr>
<tr>
<td>Handling Specialist</td>
<td>Specialist Medicine</td>
<td>177</td>
<td>77%</td>
</tr>
<tr>
<td></td>
<td>Specialist Dentistry</td>
<td>52</td>
<td>23%</td>
</tr>
<tr>
<td>Health Financing</td>
<td>Indonesia Social Security Agency of Health (BPJS Kesehatan)</td>
<td>151</td>
<td>66%</td>
</tr>
<tr>
<td></td>
<td>Private insurance</td>
<td>30</td>
<td>13%</td>
</tr>
<tr>
<td></td>
<td>Independent Source</td>
<td>48</td>
<td>21%</td>
</tr>
</tbody>
</table>

Measurement Outer Model

Measurement Outer Model tests the validity and reliability of a questionnaire. The validity test aims to measure whether or not a questionnaire is valid. A questionnaire is valid if the questions can reveal something that the questionnaire will measure (Becker et al., 2023). At the same time, the reliability test aims to measure a questionnaire that indicates a variable or construct. A questionnaire is reliable if a person's answers to statements are consistent or stable over time (Rigdon et al., 2017).

Table 3. Outer Measurement Model Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Loadings Factor Scale</th>
<th>Cronbach's Alpha</th>
<th>Composite Reliability</th>
<th>Average Variance Extracted (AVE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administrative Conduct (AC1-AC5)</td>
<td>0.799-0.877</td>
<td>0.785</td>
<td>0.847</td>
<td>0.539</td>
</tr>
<tr>
<td>Doctor's Services (DS1-DS5)</td>
<td>0.763-0.870</td>
<td>0.827</td>
<td>0.879</td>
<td>0.601</td>
</tr>
<tr>
<td>Medical Expertise (ME1-ME6)</td>
<td>0.736-0.883</td>
<td>0.880</td>
<td>0.910</td>
<td>0.630</td>
</tr>
<tr>
<td>Medical Facility Atmosphere (MFA1-MFA4)</td>
<td>0.733-0.922</td>
<td>0.854</td>
<td>0.902</td>
<td>0.701</td>
</tr>
<tr>
<td>Nursing Service (NS1-NS4)</td>
<td>0.784-0.874</td>
<td>0.811</td>
<td>0.876</td>
<td>0.644</td>
</tr>
<tr>
<td>Patient Loyalty (PL1-PL6)</td>
<td>0.704-0.811</td>
<td>0.839</td>
<td>0.880</td>
<td>0.552</td>
</tr>
<tr>
<td>Patient Satisfaction (PS1-PS7)</td>
<td>0.804-0.901</td>
<td>0.920</td>
<td>0.936</td>
<td>0.678</td>
</tr>
<tr>
<td>Sharia Facilities (SF-SF7)</td>
<td>0.806-0.888</td>
<td>0.889</td>
<td>0.913</td>
<td>0.582</td>
</tr>
<tr>
<td>Word of Mouth (WoM)</td>
<td>0.801-0.874</td>
<td>0.852</td>
<td>0.900</td>
<td>0.693</td>
</tr>
</tbody>
</table>
Hair Jr. (2017) stated that validity testing with PLS techniques was carried out by looking at convergent validity such as Loading Factor and Average Variance Extracted (AVE) values. The convergent validity of the measurement model with reflexive indicators can be seen from the correlation between the item score/indicator and the score construct (loading factor) (Hair Jr. et al., 2017). An individual's reflective measure is said to be high if it correlates more than 0.70 with the construct to be measured. Hair Jr. (2017) describes another test to assess the validity of constructs by looking at AVE values. The model is good if the AVE of each construct value is more significant than 0.50.

In addition to validity tests, model measurements are also carried out to test the reliability of a construct. In SmartPLS 3.3.3, measure the reliability of a construct with reflective indicators in two ways: Cronbach's Alpha and Composite Reliability (Sarstedt et al., 2017). The construct is considered reliable if composite reliability and Cronbach's alpha value exceed 0.70.

Table 3 shows that the loading factor produced in the indicator scale in the variable is more than 0.7, so the indicator is said to be valid as a measure of the latent variable. Furthermore, the results supporting the validity of the overall AVE variable are more than 0.5, which can be concluded the stronger the validity is supported. In addition, table 3 shows the value of composite reliability and Cronbach Alpha of all research variables >0.7. It can be concluded that all variables have a high level of reliability.

**Inner Model Structural**

The structural model test or inner model looks at the correlation between the measured constructs, the t-test of the partial least square itself. The structural or inner models can be measured through two steps (Kock, 2018).

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**Gambar 2. Bootstrapping Output**
In assessing the structural model, an assessment of the R-Square for each endogenous latent variable is first carried out as the predictive force of the structural model. The R-Square test shows how much influence between variables in the model. Testing of structural models is carried out by looking at the R-Square value, which is a goodness-fit test of the model (Sarstedt et al., 2017). Changes in R-Square values can be used to explain the effect of certain exogenous latent variables on whether endogenous latent variables have a substantive influence. R-Square values of 0.75, 0.50, and 0.25 show that the model is robust, moderate, and weak.

In Table 4, the R-Square value of the patient satisfaction variable is 0.971. This means that Sharia facilities, doctor's services, nursing services, medical expertise, medical facility atmosphere, and administrative conduct explain 97.1% of the patient satisfaction variable or are explained very strongly. Furthermore, the patient loyalty variable gets an R-Square value of 0.799, or the satisfaction variable successfully explains 79.9% of the patient loyalty variable. Finally, the endogenous variable of Word of Mouth was explained moderately by the patient loyalty variable of 71.7%.

The next test is to see the significance of the influence between variables by looking at the value of parameter coefficients and t-statistical significance values through the bootstrapping method (Hair et al., 2019). A value is considered significant if the statistical t value is greater than 1.96 (significance level 5%) for each of its path relationships.

The results of the hypothesis analysis in Table 4 show the acceptance of all proposed hypotheses except for the fifth hypothesis does not receive PLS-SEM regression support. T-Statistic calculations found that the first hypothesis indicates halal health services that strongly influence patient satisfaction. As for the seventh and eighth hypotheses, both have very significant numbers. A more detailed explanation will be given in the following subchapter.

### Table 4. Hypothesis and R-Square Result

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Original Sample (O)</th>
<th>T Statistics (O/STDEV)</th>
<th>P Values</th>
<th>R-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Sharia Facilities → Patient Satisfaction</td>
<td>1,030</td>
<td>15,589</td>
<td>0,000</td>
<td></td>
</tr>
<tr>
<td>H2: Doctor's Services → Patient Satisfaction</td>
<td>0,187</td>
<td>5,177</td>
<td>0,000</td>
<td></td>
</tr>
<tr>
<td>H3: Nursing Service → Patient Satisfaction</td>
<td>0,058</td>
<td>1,612</td>
<td>0,108</td>
<td></td>
</tr>
<tr>
<td>H4: Medical Expertise → Patient Satisfaction</td>
<td>0,069</td>
<td>1,601</td>
<td>0,110</td>
<td>0.971</td>
</tr>
<tr>
<td>H5: Medical Facility Atmosphere → Patient Satisfaction</td>
<td>0,001</td>
<td>0,014</td>
<td>0,989</td>
<td></td>
</tr>
<tr>
<td>H6: Administrative Conduct → Patient Satisfaction</td>
<td>0,220</td>
<td>4,529</td>
<td>0,000</td>
<td></td>
</tr>
<tr>
<td>H7: Patient Satisfaction → Patient Loyalty</td>
<td>0,836</td>
<td>40,578</td>
<td>0,000</td>
<td>0.799</td>
</tr>
<tr>
<td>H8: Patient Loyalty → Word of Mouth</td>
<td>0,843</td>
<td>51,934</td>
<td>0,000</td>
<td>0.711</td>
</tr>
</tbody>
</table>

### Discussion

The effect of sharia facilities on patient satisfaction has a coefficient value of 1.030, a p-value of 0.000, and a T-Statistics of 15.589, making the first hypothesis accepted and interpreting the significance of influence. As the most influential halal health service variable among others, hospitals must ensure that hospitals present quality halal standard health service facilities to meet the needs of the Indonesian people, especially the Muslim community. All facilities from Pavilions, Emergency Departments, Polyclinics, Excellent Services, Inpatient, and Intensive Care must be supported with worship equipment (Al-Quran, Mukena, Tasbih, etc.) and worship support facilities (water taps, halal soap, musholla bangsal) to ensure patients and their families can worship for their holistic spiritual needs. This is part of Sharia hospital services that ensure complete service and patient satisfaction. Sharia-based facilities in Sharia hospitals have a significant impact on patient satisfaction. This is because this facility meets the needs of Indonesian patients who are more sensitive to religious and cultural values. Muslim patients are very concerned about the halal food and drinks they consume.

In Sharia hospitals, food and drinks provided are guaranteed halal and do not contain haram ingredients, such as pork or alcohol. Thus, patients who pay attention to this will feel more comfortable and calmer during treatment at Sharia hospitals. In addition, Sharia hospitals also
provide prayer rooms such as prayer places and prayer rooms for patients who want to worship. This makes it easier for patients to carry out their religious obligations without leaving the hospital and feeling uncomfortable or unsafe in performing worship. Not only that, but Sharia hospitals also pay attention to the needs of patients’ families during patient treatment at the hospital. These facilities include comfortable waiting rooms, family lodging rooms, and other facilities that make families feel calmer and assured in looking after their patients in the hospital. Medical services in Islamic hospitals also follow Islamic principles such as integrity, fairness, and providing holistic care. Thus, this medical service provides a positive experience for patients and their families to feel valued and assured during their treatment at a Sharia hospital.

The results of the PLS-SEM analysis accept the second hypothesis, in this case, the effect of doctor’s service on patient satisfaction according to the value of the coefficient 0.187, T-Statistics 5.177, and P-Value 0.000. Medical services in Sharia hospitals are based on Islamic principles. This includes the application of Islamic ethics in communicating, maintaining patient privacy, upholding integrity, providing justice, and providing holistic care. When doctors practice these values, patients will feel valued and understood in their treatment, increasing patient satisfaction. In addition, the quality of doctors' medical skills and knowledge also affects patient satisfaction. Doctors with competence and expertise in diagnosing diseases, providing appropriate treatment, and clearly explaining conditions and treatment plans to patients will provide effective treatment and produce positive results. The ability of doctors to communicate well is also essential to increase patient satisfaction. Doctors who listen well, provide clear explanations, and respond comprehensively to patient questions will help patients feel involved in their care. In addition, doctors must also have empathy, cultural sensitivity, and respect for the concerns and values of patients. The attitude and behavior of doctors also affect patient satisfaction. A friendly, polite, and empathetic doctor will create a comfortable patient environment.

Furthermore, the results of the PLS-SEM analysis show the effect of nursing service on patient satisfaction, which means that the third hypothesis is accepted. Sharia hospitals were established to provide health services following Sharia principles. In this context, Muslim nurses who apply Islamic values in their services can create a greater sense of comfort and trust for patients who share similar values. This can include attending to halal dietary needs, worship times, or spiritual support according to the patient's beliefs. Muslim nurses in Islamic hospitals may better understand Muslim patients' culture, traditions, and norms relevant to health services. They may be more sensitive to the patient's needs related to care, communication, and social interactions that respect the patient's religious and cultural values. This can create an inclusive environment and strengthen the bond between nurses and patients. Muslim nurses in Sharia hospitals can also facilitate communication between nurses and Muslim patients. The nurse’s ability to speak the same language and understand special needs from a religious standpoint can improve verbal and nonverbal communication between nurse and patient. Good communication is essential in building solid relationships, reducing misunderstandings, and providing appropriate care. Muslim nursing services in Islamic hospitals can include empathy and more significant personal concern for patients. Muslim nurses can better understand patients’ concerns and needs because they may share the same beliefs or culture. This can create a more positive relationship between nurses and patients and help increase patient satisfaction.

Furthermore, the analysis results in Table 4 accept the fourth hypothesis: medical expertise affects patient satisfaction. Medical agility includes the knowledge and skills necessary to provide high-quality medical care. Sharia hospitals employing competent and skilled medical personnel can provide effective and efficient patient care. The ability of doctors and other medical personnel to properly diagnose, treat, and manage a patient's health condition can directly affect the outcome of a patient's treatment and recovery. High medical skills foster patients' trust in hospitals and the medical personnel who care for them. Patients feel more comfortable and confident getting the best care available. This can provide security and increase patients' confidence in their treatment process. Medical agility also contributes to speed and efficiency in delivering care. Sharia hospitals with well-trained medical personnel can respond quickly to emergencies, perform necessary medical procedures, and provide timely treatment. This speed and efficiency can improve the
patient experience, reduce unnecessary wait times, and provide quick solutions to their health
problems.

Table 4 found unusual results in which the medical facility atmosphere did not affect patient
satisfaction, which means the fifth hypothesis was rejected. Sharia-based hospitals generally provide
healthcare services to patients who need medical care that follows their cultural and religious values.
Patient satisfaction at the hospital is primarily influenced by adherence to Islamic principles,
provision of halal treatment options, and an atmosphere that respects Islamic traditions. Patients
may choose to consult a qualified Islamic scholar or religious advisor, respect modesty in dress,
and use facilities that respect Islamic customs, rather than paying attention to the facility’s physical
condition. In addition, in providing health services, sharia-based hospitals often emphasize
providing quality medical care following Islamic principles. Patients who come to these facilities
tend to pay more attention to medical professional competence, diagnosis accuracy, treatment
effectiveness, and overall clinical outcomes rather than the facility’s physical condition. When a
person seeks medical care, their top priority is to get effective treatment and recovery. The patient’s
primary focus is on medical expertise, quality care, and the outcomes they get from the treatment.

In addition, the patient’s health condition can make them more sensitive to the symptoms
and discomfort they experience. When people feel sick or anxious about their health condition,
they focus on pain relief, symptom relief, or accurate diagnosis. They may not have the energy or
mental capacity to thoroughly pay attention to the physical atmosphere of a medical facility. In
some cases, patients may also experience anxiety, fear, or stress that can cloud their perception of
their surroundings. In addition, patient preferences for a comfortable and ideal atmosphere may
vary. Some patients may appreciate the cleanliness and safety of the facility.

In contrast, others may pay more attention to physical comforts such as appropriate
temperature, comfortable lighting, or comfort amenities such as comfortable beds or spacious
waiting areas. Each individual has unique preferences, and it is impossible to meet the expectations
of all patients in terms of an ideal atmosphere. More importantly, interaction with medical staff
often has a more significant influence on patient satisfaction. Effective communication, empathy,
and care medical staff provide can play an important role in creating a positive patient experience.
Patients are more likely to remember the quality of care provided by medical staff, the feeling of
being valued and heard, and the quality of relationships formed during the treatment process than
non-medical aspects such as the physical atmosphere of the facility. As for emergency or critical
situations, the physical atmosphere of the facility may need to be more important. In such
situations, patients generally require fast, precise, and efficient treatment of their health condition.
The existence of adequate medical equipment, the ability of medical staff to work quickly, and the
availability of facilities related to emergency care become more important factors than the
atmosphere aspect.

Patients in emergency conditions may need more time or energy to pay detailed attention
to the physical atmosphere of a medical facility. They prioritize getting immediate and appropriate
medical assistance to save lives or mitigate serious health risks. However, it cannot be ignored that
the physical atmosphere of medical facilities still has an important role in providing an environment
that supports healing and provides a sense of security for patients. A clean, organized, and well-
organized facility can give patients an impression of professionalism and trust. Factors such as
adequate lighting, comfortable temperature, and quiet and private spaces can also provide physical
comfort for patients. In addition, some patients may be more susceptible to the influence of the
physical atmosphere. For example, children, the elderly, or patients with mental health conditions
may be more sensitive to the environment around them. In such cases, medical facilities may
consider providing a child-friendly environment, a comfortable waiting area, or a facility that
reduces patient stress and anxiety. It is important to note that patient satisfaction results from good
communication, quality of medical care, physical comfort, and interaction with medical staff. While
a medical facility's physical atmosphere may not be a dominant factor in patient satisfaction,
medical facilities must monitor and improve aspects of the atmosphere that can enhance patient comfort and experience.

Next, the PLS-SEM analysis results accept the sixth hypothesis, which means administrative conduct significantly affects patient satisfaction. Effective administrative execution ensures clear and timely patient communication regarding appointments, procedures, and all necessary documents. Patients feel good about being informed about their treatment plan, understanding administrative processes, and being able to answer their questions or concerns. When administrative staff demonstrate good communication skills, provide accurate information, and show concern for patient needs, it improves patient experience and satisfaction. Organizational governance behavior plays an essential role in ensuring the smooth flow of operations within medical facilities. Efficient scheduling, minimal wait times, and efficient governance processes improve patient satisfaction. When administratively well organized, handles appointments and registrations efficiently, and minimizes delays or unnecessary paperwork, it positively impacts patients' perception of their overall satisfaction. In summary, administrative behavior significantly affects patient satisfaction by ensuring effective communication, efficient processes, empathy and patient-centered care, proactive problem solving, and contributing to the perception of overall quality within a medical facility. Patients appreciate well-organized administrative and interaction operations prioritizing their needs, leading to a positive patient experience and increased satisfaction.

Next, the results of the PLS-SEM analysis showed acceptance of the seventh hypothesis, which states the effect of patient satisfaction on patient loyalty. Satisfying patients with their healthcare experience builds trust and confidence in the healthcare provider and its facilities. Satisfied patients are more likely to perceive the healthcare team as competent, caring, and reliable. Trust and confidence in the provider's abilities and the quality of care received create a sense of loyalty, leading patients to continue seeking care from the same provider or facility. Patient satisfaction drives continuity of care, where patients choose to receive continuing medical services from the same provider or facility. Satisfied patients are more likely to develop long-term relationships with their healthcare providers and build a sense of familiarity and comfort. Continuity of care is associated with better health outcomes, better coordination of care, and a deeper understanding of a patient's medical history, all of which contribute to patient loyalty.

Finally, the results of PLS-SEM analysis show acceptance of the eighth hypothesis, which states the effect of patient loyalty on Word of Mouth. When patients develop a sense of loyalty to a healthcare provider or facility, they tend to be more confident and confident in their care. This trust and credibility translate into the recommendations they make to others. Friends, family, and acquaintances are more likely to trust the opinion of someone who was once a loyal patient and had a positive experience with a particular provider or facility. Loyal patients often deeply understand the quality of care, the expertise of healthcare providers, and the overall patient experience in a particular healthcare setting. They can provide specific details and personal anecdotes that add credibility to their WOM recommendations. Personal experiences shared by loyal patients can resonate strongly with others, increasing their confidence in their recommendations. Word-of-mouth recommendations from loyal patients carry significant weight due to the concept of social proof. People often rely on the experiences and opinions of others to make decisions, especially regarding health care. Positive WOM recommendations from loyal patients can influence the perceptions and decisions of others, creating a ripple effect of trust and loyalty. Loyal patients who provide positive WOM recommendations expand the reach and reputational impact of the provider or facility. Their recommendations can reach a wider audience and attract new patients. A positive WOM can have a cumulative effect, with each satisfied patient's recommendation influencing more people and contributing to the growth of the reputation of the provider or facility. In short, patient loyalty has a significant influence on word-of-mouth recommendations. Loyal patients, driven by trust, personalized experiences, emotional connection, and willingness to advocate, share their positive experiences with others. Their recommendations carry credibility, influence, and the power of social proof, leading to increased visibility and attracting new patients to a provider or facility.
Conclusion

This study concludes that Sharia facilities, doctor-nurse services, medical expertise, and administrative conduct as indicators of halal health services affect the satisfaction of Sharia hospital patients. However, there is a rejection of the effect of the medical facility atmosphere on satisfaction caused by patient concentration on medical services and solving health problems. Next, patient satisfaction affects loyalty, which has a positive word-of-mouth effect.

This study forms profound research implications for Islamic hospitals and the central government in the macro policy. Hospitals must understand that patient assessment is one aspect of quality care. To ensure patient satisfaction, Islamic hospitals need to conduct a thorough review of their physical facilities. This includes paying attention to aspects of cleanliness, comfort, completeness of the patient's spiritual needs, and aesthetics of the room. Medical personnel must improve communication and handling skills that do not only consider the medical side of Sharia, which has halal value in operations, especially the use of drugs and equipment. The nursing team should reinforce the patient's condition, health care support, and emotional and spiritual patients. Digitalization of the integrated health administration system and strengthening hospital service standards must continually be improved along with increased mobility and technological developments. Hospitals must be adaptive to the times and make technology a means of service efficiency and the excellence of Sharia hospitals in the era of the industrial revolution 4.0. Hospitals must carry out halal health service evaluations from regular patient feedback, hospital logistics assessments, and external party monitoring. Hospitals must constantly maintain and strengthen Sharia values in every aspect of hospital services.

The recommendation for the government is to collaborate with the Ministry of Health of the Republic of Indonesia and the Ministry of Religious Affairs of the Republic of Indonesia through the Halal Product Assurance Organizing Agency (BPJPH RI) in intensive monitoring of Sharia hospitals accompanied by coordination to improve the quality of sharia hospitals in Indonesia. As an institution that issues Sharia Hospital certificates, the Indonesian Islamic Health Effort Council (MUKISI) must start a Sharia doctor and nurse certification program organized explicitly in a training scheme.

This study has succeeded in achieving its goals, but there are still limitations to the focus of research on Indonesia; this condition makes research results cannot be generalized easily to the conditions of hospitals in other countries. In addition, this study is still investigating the antecedents that limit halal health services. Therefore, future research is expected to be a cross-country comparative study and should expand on other variables such as mosque infrastructure and Islamic medical ethics.

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References


