



## The Establishment of Sharia-Based Class D General Hospital in Purwantoro, Wonogiri, Central Java

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### Abstract

**Backgrounds:** Purwantoro is a very strategic area, located in the middle of its surrounding subdistricts, and is a transit point to get to the surrounding sub-districts. In Wonogiri, there are nine general hospitals, but none are located in Purwantoro. The ratio of hospital beds per 1,000 population in Wonogiri is still 0.96. Indonesia is a country with the largest Muslim population (87.2%). The Muslim population of Wonogiri Regency reached 1,108,696 (97.65%), and specifically in Purwantoro, 99.06% are Muslims. So that awareness and need for sharia-based health services increased.

**Materials and Methods:** This research is a feasibility study. Primary and secondary data obtained are collected and processed, then analyzed by the situation, demand, and needs, as well as financial analysis. Investment evaluation using the Investible Surplus Method (ISM).

**Results:** Situation analysis, both external and internal aspects, supports this project. Demand and needs analysis also have been fulfilled, but necessary to pay attention to the needs of male nurses. The total cost of the entire project excluding land purchases is Rp 42.231.739.375,00 through two-step constructions with an ISR of 16,81% in the ninth year.

**Conclusions:** The establishment of a sharia-based class D general hospital in Purwantoro, Wonogiri, Central Java is feasible to be established with a capacity of 60 beds at an area of 4.252 m<sup>2</sup>, an investment value of Rp. 42.231.739.375,00 through two-step constructions with ISR of 16,81 % for nine years.

**Keywords:** *Feasibility study, class D general hospital, sharia hospital*

## 1. Introduction

One of the basic human needs is health. Health is defined as a state of physical, mental, and social well-being so that individuals can live socially and economically productive lives<sup>1</sup>. In meeting health needs, the problems often encountered are access, affordability, and quality of health services. Existing healthcare providers are also not fully accessible in terms of cost and distance by the community. Thus, one of the strategies of the Ministry of Health of the Republic of Indonesia is to improve health services. Improving health services is more emphasized equity and affordability of the community in accessing health services<sup>2</sup>.

Wonogiri is located in the southeast of Central Java Province, between two provinces East Java and the Yogyakarta Special Region. One of the sub-districts in the Wonogiri is Purwantoro, which is in the easternmost bordering Ponorogo Regency in East Java Province. Purwantoro is very strategic because it is in the middle and is a transit point to get to the sub-districts around Purwantoro in Wonogiri, Ponorogo, Magetan, and Pacitan<sup>3</sup>. In Wonogiri, there are nine general hospitals, but none are located in Purwantoro. There are 918 hospital beds in 2018 with the hospital bed ratio still 0,96<sup>4</sup>. This figure is far from the World Health Organization (WHO) standard, which is five beds per 1,000 population.

Data from the World Population Review revealed that Indonesia is the country with the largest Muslim population in the world. In 2020, it reached 229 million people or 87.2% of the total population of 273.5 million people<sup>5</sup>. In Wonogiri the Muslim population reached 1,108,696 people, or 97.65% of the total population, while in Purwantoro 99.06% of the 48,930 people were Muslim<sup>6</sup>. In addition, in Wonogiri, there are 37

Islamic boarding schools, of which 18 Islamic boarding schools are located in Purwantoro and its surroundings<sup>7</sup>. Therefore, sharia-based services are developing in Indonesia in general; likewise, health services applying sharia principles are increasingly demanded by the Indonesian people. Furthermore, sharia hospitals are specified as hospitals whose activities are based on *Maqoshid al-Syariah al-Islamiyah* (the purpose of implementing Islamic sharia), including upholding religion (*khifdz ad-diin*), preserving souls (*khifdz an-nafs*), maintaining offspring (*khifdz an-nasl*), maintaining reason (*khifdz al-aql*), and keeping property (*khifdz al-mal*). Thus, sharia hospitals should not only serve those who are Muslim, and there should be no discrimination in services for non-Muslims. Patients other than Muslims will be served with applicable service standards and have the right to refuse services contrary to and not to their beliefs. Hospitals also always identify beliefs at the beginning before it is decided to provide Islamic spiritual services. Hence, the patient's religious rights are maintained<sup>8</sup>.

In Indonesia, the increasing awareness of the need for sharia-based health services can be seen from the increasing number of hospitals using Islamic names. However, it is sometimes just a name, which in terms of service, it is still not standardized<sup>9</sup>. In response to this phenomenon, Majelis Upaya Kesehatan Islam Seluruh Indonesia (MUKISI), an Islamic health organization, seeks to create professional, quality, and Islamic health. In realizing its goals, MUKISI collaborates with Dewan Syariah Nasional-Majelis Ulama Indonesia (DSN-MUI)<sup>10</sup>. DSN-MUI published a fatwa on guidelines for operating hospitals based on sharia principles, while MUKISI issued sharia hospital certification standards and instruments. DSN-MUI

and MUKISI also signed a memorandum of understanding on cooperation in the framework of sharia hospital certification. So far, the sharia hospital standards issued by MUKISI have emphasized service and management standards<sup>11</sup>. Because of the above, the researchers conduct a feasibility study to establish a class D general hospital based on sharia principles and under applicable regulations.

## 2. Materials and Methods

This research is a feasibility study, which is to study in-depth the data and information obtained, then the data and information are analyzed using certain methods<sup>12,13</sup>. This research was conducted in Purwanto Subdistrict, Wonogiri Regency, Central Java Province in June - July 2021. This research object was the project of establishing a sharia-based class D general hospital in Joho Village, Purwanto Subdistrict, Wonogiri Regency, Central Java Province, while primary data and secondary information on health facilities, infrastructure, and resources in Wonogiri District

In this study, a thorough situation analysis was carried out from external and internal aspects. External aspects consisted of policies, social, cultural, and economic demographics, health status, human health resources in Wonogiri Regency, and competitors. Meanwhile, internal aspects included company capital and land location resources. Demand and needs analysis was performed on the projected number of patients, bed capacity, hospital class categorization, organization and job descriptions, human resources, medical and non-medical equipment needs, space requirements, and land requirements, which were adjusted to the form and categorization of class D general hospitals and followed hospital sharia standards. Moreover, in

financial analysis, investment plans, income and cost projections, and cash flow projections were analyzed. In addition, to evaluate usury-free investments, the Investible Surplus Method (ISM), a method based on the excess of the invested goods, was utilized.

## 3. Results

Situation analysis is carried out on external aspects to see opportunities and threats, and on internal aspects that can be strengths or weaknesses so that segmentation tendencies and the position of the hospital establishment can be identified. In the analysis of external aspects, several policies affect the project of establishing a sharia-based class D general hospital in Purwanto Wonogiri namely Rencana Pembangunan Jangka Menengah Nasional (RPJMN) 2020-2040, Rencana Pembangunan Jangka Menengah Daerah (RPJMD) of Wonogiri Regency 2021-2026 and DSN MUI Fatwa Number 107/DSN-MUI/X/2016 concerning Guidelines for Hospital Operations based on Sharia Principles supports the project of establishing this sharia-based class D hospital. In addition, there is Law No. 11 of 2020 concerning Job Creation, Government Regulation Number 5 of 2021 contains the Implementation of Risk-Based Business Licensing, and Number 47 of 2021 contains the Implementation of the Hospital Sector, as well as Regulation of the Minister of Health Number 14 of 2021 concerning standards for business activities and products in the implementation of business licensing based on health sector risks, provides ease of investment by simplifying business permits.

This project is located in Joho Village, Purwanto Sub-district, Wonogiri Regency. The demographic growth analysis for the market

segment of hospital services looks at the trend of population growth in the surrounding sub-districts, which are Kismantoro, Bulukerto, Badegan, Sampung, and Slogohimo. The total population in the coverage area is 246,733 people, with a population growth rate of 1.32% and a gender ratio of 99.74<sup>14,15</sup>. The final education of the Wonogiri population at most is an elementary school (32.85%)<sup>16</sup>. Most of the residents of Purwantoro Subdistrict and its surroundings are also elementary school graduates. The number of schools in the Purwantoro sub-district and five sub-districts directly adjacent to the Purwantroro sub-district is dominated by SD or Madrasah Ibtidaiyah (MI) as many as 188 SD/MI<sup>14</sup>. The population of Wonogiri is mostly Muslim (97.7%). Likewise, Purwantoro District and its surroundings are also mostly Muslim, Purwantoro 99.07%; Kismantoro 99.61%; Bulukerto 98.63%; Slogohimo 98.23%;<sup>14</sup> Badegan 99.93%; and Sampung 99.57%<sup>15</sup>.

The Wonogiri community has a culture in the hinterland of Java. Wonogiri comes from the Javanese language, Wono which means forest, and Giri which means mountains, which describes the condition of Wonogiri in the form of rice fields, forests, and mountains<sup>17</sup>. Most of the Wonogiri residents work as farmers (24.59%), as well as residents in Purwantoro District and its surroundings. Although most of the population works as farmers, the Wonogiri community cannot be separated from the "Boro" culture or migrate. In 2019 260,000 people were migrating outside Wonogiri, this shows that a quarter of Wonogiri's population migrated outside the region.

Based on constant prices, Wonogiri's GRDP in 2020 is IDR 20.56 trillion. The value of Wonogiri's GRDP from 2016 to 2019 always increases. However, in 2020 during the Covid-19 pandemic,

Wonogiri's economy contracted -1.41%. Household consumption expenditure, which is the foundation of economic growth in Wonogiri, also corrected -0.90%. The role of expenditure for capital on the economy of Wonogiri Regency in 2020 is 20.98%. The role of the PMTB component has shown an increase over the last 4 years before the pandemic, this shows an increase in investment activities in Wonogiri both from the government and the private sector, despite a decline in investment during the pandemic. All business fields experienced positive growth for 4 years before the pandemic, but during the Covid-19 pandemic, almost all business fields contracted, except for 3 business fields which experienced positive growth of above 5%, one of which was health and social services by 8.33%<sup>14</sup>.

A study of health status is needed to prepare health facilities by current trends. The study of health status in Wonogiri Regency can be seen from several aspects such as the Mortality Rate. Infant Mortality Rate (IMR) and Toddler Mortality Rate (TMR) are sensitive indicators to determine the health status of an area. In 2018 the IMR of Wonogiri Regency was 10.04 or 107 infant deaths out of 10,653 live births. This IMR increased when compared to IMR in 2017 and 2016. While the TMR in 2018 was 10.80 (115 toddlers). TMR decreased compared to 2017 by 11.39 (123 children under five). In addition, in 2018 the MMR in Wonogiri Regency was 65.71 (7 mothers from 10,653 live births). This figure decreased when compared to 2017 (83.33) and 2016 (87.38). In 2018 the crude birth rate of the Wonogiri Regency was 9.81. While in 2017 it was 9.85 and in 2016 was 10.53. The crude birth rate in Wonogiri tends to decrease every year<sup>17</sup>. The morbidity rate in Wonogiri Regency by gender, among others, male morbidity (11.40%) is higher

than female morbidity (10.81%), directly proportional to the percentage of the population experiencing health complaints. Meanwhile, based on the area of residence, the morbidity rate of the population in urban areas is greater than in rural areas, namely 13.02% in urban areas and 10.44% in rural areas. The illness rate for the male population in urban areas (13.56%) is higher than the male population suffering from illness in rural areas (10.64%). Likewise, the morbidity rate of the female population in urban areas (12.48%) is higher than the morbidity rate of the female population in rural areas (10.26%)<sup>18</sup>.

Disease patterns and epidemiology are needed to see the tendency of the types of diseases that occur in the community in the coverage area of this hospital project. So based on this trend, it can be arranged and formulated the type of service that will be planned. From the data, it was found that the most cases of the disease in Purwantoro and surrounding districts were Upper Respiratory Tract Infections and Dyspepsia. There are around 729 pregnant women in Purwantoro District in 2018 this number tends to increase from year to year. Of the 729, there were 145 pregnant women with complications<sup>4</sup>.

The first-level health service facilities in Wonogiri Regency are spread across all sub-districts, namely 5 Puskesmas with this treatment, 29 non-inpatient health centers, 32 clinics, and 89 independent doctor practices. Meanwhile, for advanced healthcare facilities, there are 9 public hospitals. However, 7 of these hospitals are still centralized in Wonogiri District and its surroundings (Selogiri and Ngadirojo). In Purwantoro District there are only 2 inpatient primary clinics and 1 inpatient puskesmas. The number of hospital beds in Wonogiri is 918 beds, so

the ratio of hospital beds per 1,000 residents in Wonogiri is still 0.96<sup>4</sup>. In Purwantoro there is indeed no hospital to date, but in the coverage area, there is 1 closest type C hospital (101 beds), 1 inpatient health center (10 beds), and 5 inpatient primary clinics (10 beds). Wonogiri Regency still lacks medical and health personnel, this can be seen from the ratio of medical and health personnel to 100,000 residents in Wonogiri Regency in 2018. The ratio of the number of general practitioners and specialists per 100,000 population is 13.7 and 9.4, while the ratio of dentists and dental specialists by 3.6 and 0.1. This figure is still far below the national target of 40 per 100,000 population. Other health workers are still below the national target<sup>4</sup>.

The project to establish a sharia-based class D general hospital in Joho Village, Purwantoro District, Wonogiri Regency, Central Java Province will be carried out by a private company with a legal entity in the form of a Limited Liability Company (Ltd). The Ltd is a member of the Ltd group which has overseen several clinics, pharmacies, and clinical laboratories. The internal aspect that influences is the amount of capital prepared by the company for the establishment of this sharia-based class D general hospital. The Ltd. already has land that is planned for the establishment of a sharia-based class D general hospital, which is in Kasihan RT 02 RW 01, Joho Purwantoro Wonogiri. The northern part is directly adjacent to the two-lane provincial road, namely the Wonogiri - Ponorogo highway. The southern part is bordered by rivers and rice fields. The western and eastern parts are bordered by residents' gardens. The project for the establishment of a sharia-based class D public hospital is by the Wonogiri Regency Regional

Regulation No. 2 of 2020 concerning the Spatial Planning of the Wonogiri Regency in 2020 – 2040. According to the regional regulation, it is

permitted to establish health service facilities in Purwantoro<sup>19</sup>.

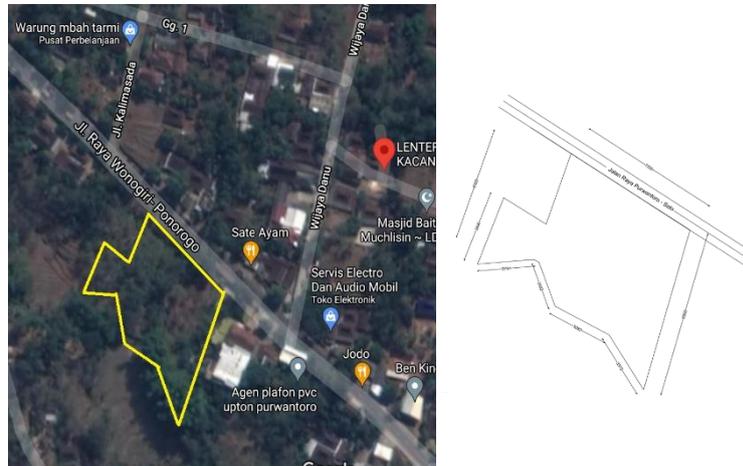


Figure 1. Location Map and Land Plan (Joho Purwantoro Wonogiri)

The number of patients in sharia-based class D general hospitals is projected taking into account the population in the coverage area, the rate of population growth and morbidity rates as well as the average number of general patient visits (not participants of the National Health Insurance/JKN) at health facilities around the coverage area. The population in the coverage area is 246,733 people, with an average growth rate of 1.32% and an average morbidity rate of 11.40%. From the data for the 10 most diseases (Upper Respiratory Tract Infections, Dyspepsia, Hypertension, Headache, Dental, Fever, Myalgia, Acute Pharyngitis, Dermatitis, and Diabetes Mellitus) the services needed are internal medicine specialists. In addition, considering the number of pregnant women, pregnant women with complications, as well as the number of infants and under-five deaths in the coverage area, around 19 infants and toddlers died in 2018, obstetrics and gynecology specialists' services are also needed<sup>18</sup>. Therefore, the types of services needed include Internal Medicine, Obstetrics and Gynecology, Child Health,

Dental, General, and Surgery. To support this poly, we need Laboratory, Radiology, and Central Surgical Installation services. In this patient projection, it is assumed that the number of patients will increase by 5% simultaneously and are general patients, this is considering that there are still many people in the coverage area who seek treatment without using JKN facilities even though they have these facilities. In addition, it takes time to fulfill administrative and technical requirements to cooperate with the Health Social Security Administration.

The bed capacity in this sharia-based class D general hospital project is estimated using a ratio of at least 1/1,000, taking into account the distribution of health facilities and epidemiological data and adjusted for the hospital class classification. The total population in the coverage area is approximately 246,733 people, so using a ratio of at least 1/1,000, it takes around 247 beds. So, taking into account the number of residents in the coverage area and the number of beds available at the nearest health facilities, 86 beds

are still needed. However, by estimating the company's resources in terms of capital, land, and location, this project was made in 60 beds. While considering epidemiological data the population of Purwantoro and its surroundings are predominantly Muslim, which is 99.17% [14] so the need for sharia-based health services is also needed.

The organizational structure of this sharia-based class D general hospital is structured according to the forms and classifications of class D general hospitals and follows the hospital's sharia standards. In sharia hospitals, there is an important component that plays a role in monitoring the implementation of sharia hospital standards, namely *Dewan Pengawas Syariah* (DPS). DPS must be certified by DSN MUI. DPS plays an important role in sharia hospitals. DPS provides input related to the application of standards, which are then run by the hospital. DPS is also obliged to monitor the running of health services in sharia hospitals so that they remain by sharia principles. DPS can be proposed by the hospital itself or external parties, but they must be certified by the MUI. Because the main task of DPS is supervision DPS members must understand fiqh and Sharia Hospital standards.

The types and numbers of medical personnel, health workers, and other personnel are calculated as efficiently and effectively as required by sharia-based class D general hospitals. The calculation of Human Resource Needs in this sharia-based class D general hospital project refers to the Government Regulation of the Republic of Indonesia Number 47 of 2021, Estimating the Need for Health Human Resources<sup>20</sup>, and the Manual of Planning for Health Human Resources Needs based on Standards. Minimum Manpower from

the Ministry of Health of the Republic of Indonesia<sup>21</sup>. The type and number of medical and non-medical equipment are adjusted to the capacity and type of sharia-based class D general hospital service.

The land required for the construction project of a sharia-based class D general hospital is adjusted to the Wonogiri Regency Regulation Number 2 of 2014 concerning Buildings. The building structure in the regulation states that the Basic Building Coefficient is a maximum of 60% and the Green Area Coefficient is 40%<sup>19</sup>. In this project, the available land area is 5,600 m<sup>2</sup>, so based on the regulation, the land that can be used for buildings is 3,360 m<sup>2</sup> and for green areas is around 2,240 m<sup>2</sup>.

This sharia-based class D general hospital establishment project is carried out by PT with a musharaka contract, which is a collaboration between two or more parties to combine capital and run a joint business in a partnership with profit sharing according to the agreement and losses based on the share of capital contributions.

The investment plan for the project implementation involves all the costs required for the construction of a sharia-based class D public hospital until it is ready for operation but does not include the purchase of land. This project is made in two stages of development, construction in year 0 and year 1, the construction of stage 1 is adjusted to the minimum requirements so that the operating permit is fulfilled. The total cost of the construction project of a sharia-based class D general hospital in Purwantoro District, Wonogiri Regency is Rp. 42,231,739,375.00, so that an overview of the amount of investment is obtained.

Revenue is projected assuming the number of services to be performed. The income projection for the operating year can be seen in the

assumption of 365 days minus national holidays and Sundays for polyclinics. The number of patients is assumed from the number of visits to health facilities around the coverage area. The outpatient income rate is IDR 60,000 – IDR 150,000.00. This figure can take into account

competitor rates (health facilities around the coverage area) while for inpatients it is assumed that the ideal BOR is 60% with the number of inpatients 5% of the total outpatients and emergency room patients, with an income of IDR 3,000,000.00/patient for 3 days of treatment.

Table 1. Overall Cost of Sharia-Based Class D General Hospital Project  
in Purwantoro Wonogiri

No	Cost	Calculation	Total amount
1.	Land	50,000/m <sup>2</sup> x 5,600m <sup>2</sup>	280.000.000
2.	Feasibility study	1% structural and architectural costs	190.437.500
3.	Design	3,5% structural and architectural costs	666.531.250
4.	Construction Execution		
a.	Tender and Contract Preparation	0,5% structural and architectural costs	95.218.750
b.	Structure and Architecture	Step 1	16.701.250.000
		Step 2	2.342.500.000
		Total	19.043.750.000
c.	Network and Equipment	25% structural and architectural costs	4.760.937.500
d.	Gardening	12,5% structural and architectural costs	2.380.468.750
e.	Interiors	9% structural and architectural costs	1.713.937.500
f.	Contract Change Order	2% structural and architectural costs	380.875.000
g.	Test and Commissioning Fee	0,05% structural and architectural costs	9.521.875
h.	Construction Supervision and/or Management (MK) Costs	2,5% structural and architectural costs	476.093.750
5.	Operational needs		
a.	Procurement of Medical Devices and Health Infrastructure	Step 1	5.858.630.000
		Step 2	852.650.000
b.	Training and Promotion	5% structural and architectural costs	952.187.500
c.	Initial Management Management	10% structural and architectural costs	1.904.375.000
6.	etc		
a.	Licensing	3% structural and architectural costs	571.312.500

b.	Tax	10% structural and architectural costs step 1	1.670.125.000
		10% structural and architectural costs step 2	234.250.000
c.	Emergency	1% structural and architectural costs	190.437.500
<b>Total Project Cost Step 1 (VAT 10%)</b>			<b>35.850.558.125</b>
<b>Total Project Cost Step 2 (VAT 10%)</b>			<b>6.381.181.250</b>
<b>Total Project Cost (VAT 10%)</b>			<b>42.231.739.375</b>

Table 2. Cash Flow Projection

Details	Year									
	0	1	2	3	4	5	6	7	8	9
<b>Gross Operating Income</b>	0	32.361.000	36.716.550	38.552.378	40.479.996	42.503.996	44.629.196	46.860.656	49.203.689	51.663.873
<b>Cost of goods sold</b>										
<b>Initial Inventory of Consumable Medicines and Medical Devices</b>	0	0	647.220	766.648	809.334	850.018	892.530	937.157	984.015	1.033.216
<b>Purchase of Consumable Medicines and Medical Devices</b>	0	12.944.400	14.685.740	15.420.027	16.191.028	17.000.580	17.850.609	18.743.139	19.680.296	20.664.311
<b>Available Consumable Medicines and Medical Devices</b>	0	12.944.400	15.332.960	16.186.675	17.000.362	17.850.598	18.743.139	19.680.296	20.664.311	21.697.527
<b>Final Inventory of Consumable Medicines and Medical Devices</b>	0	647.220	766.648	809.334	850.018	892.530	937.157	984.015	1.033.216	1.084.876
<b>Consumable Medicines and Medical Devices Sold</b>	0	12.297.180	14.566.312	15.377.341	16.150.344	16.958.068	17.805.982	18.696.281	19.631.095	20.612.650
<b>Total Cost of Goods Sold</b>	0	12.297.180	14.566.312	15.377.341	16.150.344	16.958.068	17.805.982	18.696.281	19.631.095	20.612.650
<b>Gross Profit</b>	0	20.063.820	22.150.238	23.175.036	24.329.652	25.545.928	26.823.214	28.164.374	29.572.593	31.051.223
<b>Costs</b>										
<b>Employee Salary Cost</b>	0	7.602.000	7.812.000	8.202.600	8.612.730	9.043.367	9.495.535	9.970.312	10.468.827	10.992.269
<b>Fixed Assets Depreciation Cost</b>	0	1.567.391	1.791.096	1.791.096	1.791.096	1.791.096	1.791.096	1.791.096	1.791.096	1.791.096
<b>Shopping and Operational Costs</b>	0	4.854.150	5.507.153	5.782.511	6.071.636	6.375.218	6.693.979	7.028.678	7.380.112	7.749.117
<b>Marketing and Training Costs</b>	0	323.610	367.144	385.501	404.776	425.015	446.266	468.579	492.008	516.608
<b>Other General and Administration Fees</b>	0	970.830	1.101.431	1.156.503	1.214.328	1.275.044	1.338.796	1.405.736	1.476.023	1.549.824

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<b>Profit before tax</b>	0	4.745.839	5.571.414	5.856.826	6.235.086	6.636.189	7.057.542	7.499.974	7.964.527	8.452.309
<b>Income tax</b>	0	949.168	1.114.283	1.171.365	1.247.017	1.327.238	1.411.508	1.499.995	1.592.905	1.690.462
<b>Net profit</b>	0	3.796.671	4.457.131	4.685.461	4.988.069	5.308.951	5.646.034	5.999.979	6.371.622	6.761.847
<b>Cash flow</b>	0	5.364.062	6.248.227	6.476.557	6.779.165	7.100.047	7.437.130	7.791.075	8.162.718	8.552.943

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Costs are projected assuming an increase of 5% simultaneously. The cost of employee salaries is adjusted to the UMR and the Standard Tariff of the Professional Association (Appendix 5). The cost of shopping for drugs and medical devices is 40% of the income. Shopping and operational costs are 15% of revenue. Marketing and training cost 1% of revenue. Other expenses – other 3% of revenue. Income tax expense is 20% of net income.

Cash flows are projected based on the assumption of the number of services to be performed. The project is planned in 2 stages. Phase 1 construction in year 0 is adjusted to the provisions so that in year 1 it is expected to be operational. Phase 2 construction in the 1st year. Hospital revenues are assumed to increase simultaneously by 5% in a year and costs are also assumed to increase by 5% in a year simultaneously. One of the investment evaluation methods proposed in the Islamic finance framework is the ISM method. This method is simpler and more rational by involving money as a function of time and free from usury. ISM is to calculate the number of years remaining investible surplus, after covering the initial cost of the project multiplied by the quantum surplus. From the calculation above, it is assumed that the development project will be carried out for 1 year, so the 1st year is expected to be ready to operate and if you look at the projected income and costs, a surplus will begin to occur in the 8th year or 7th year of operation, with an ISR of 16.81%.

#### 4. Discussion

In the external aspect analysis, several policies affect the project, namely the 2020-2040 RPJMN on improving health services, emphasizing the community's equity and affordability in accessing health services<sup>2</sup>. It is because the

currently available health service providers are not yet fully accessible in terms of cost and distance by the community, especially the people of Purwantoro and its surroundings. In addition, the Wonogiri RPJMD 2021-2026 states that residents registered as Wonogiri residents can access health services for free, either at Puskesmas or hospitals in Wonogiri<sup>22</sup>. Also, the DSN-MUI Fatwa Number 107/DSN-MUI/X/2016 concerning guidelines for operating a hospital based on sharia principles contains that the sharia hospital operation is based on sharia principles<sup>10</sup>. In implementing these principles, DSN-MUI, in collaboration with MUKISI, issued sharia hospital standards. The MUKISI issued the latest version of sharia hospital certification standards and instruments, version 1441, in 2020. In this version, sharia hospital standards were simplified, namely service standards and management standards. In this case, the existence of these three policies is certainly very supportive of the project of establishing this sharia-based class D general hospital.

Furthermore, the existence of Law Number 11 of 2020 concerning job creation has led to new regulations, including Government Regulation Number 5 of 2021 regarding the implementation of risk-based business licensing, Government Regulation Number 47 of 2021 on the administration of the hospital sector, and Minister of Health Regulation No. 14 of 2021 concerning standards for business activities and products in the implementation of risk-based business licensing in the health sector. The four regulations above make it easier to invest by simplifying business permits in the health sector. There is also an ease of regulation governing the hospital establishment compared to previous regulations.

One of them states that business actors in establishing hospitals do not refer to the availability of human resources but allude to the hospital's ability. Permits to establish hospitals also become simpler, namely with only one permit, a hospital business permit. Thus, it is hoped that the simplification and ease of permitting to establish a hospital will make it easier for business actors to provide health services and, at the same time, create employment opportunities, especially for health workers. In addition, this facility is expected to invite investors to invest in the health sector to increase access to health services.

The population growth rate of Wonogiri is 1.13%, with a gender ratio of 99.74. Besides, the total population in Purwantoro and surrounding areas is 246,733 people, with a population growth rate of 1.32%. The majority of the population of Purwantoro and its surroundings is Muslim (99%)<sup>14</sup>. It made the need for sharia-based health services will undoubtedly increase and, of course, support this project.

Moreover, the Wonogiri community has an inland Javanese culture. The East Wonogiri people themselves have the character of *lemah bang gineblegan*, which means like clay that can be solid and easy to shape. They like to be extravagant and unruly, but if they are good at patting, they are like clay, which is easily directed to something useful.<sup>17</sup> This community's character also influences the choice of health services. It turns out that even though they have Jaminan Kesehatan Nasional (JKN) facility, many people in Purwantoro still seek treatment without using JKN. Aside from the community's character, although most Wonogiri residents work as farmers, they cannot be separated from the "Boro" culture or migrate. This migration culture

affects health services when homecoming occurs, namely a surge in the number of visits to health facilities.

From the economic side of Wonogiri from 2016-2019, it consistently increased, as seen from the increased GRDP value. However, in 2020, during the COVID-19 pandemic, the Wonogiri economy contracted by 1.41%. The contraction occurred in almost all business fields, except for three business fields, one of which was social health services, by 8.33%. It supports investment in the health service establishment<sup>23</sup>.

External aspects such as health status in Wonogiri are still lacking, it can be seen that the infant mortality rate has increased in 2018. In addition, health human resources are still lacking in Wonogiri Regency, supporting this project, so it is hoped that this project can improve health status and health human resources in Wonogiri Regency. An external aspect that is no less important for consideration is the presence of competitors, namely several health facilities in the coverage area, namely in the sub-district around Purwantoro there is 1 type C hospital closest to the capacity of 101 beds, 1 inpatient health center with a capacity of 10 TT and 5 clinics. inpatient primary care with a capacity of 10 beds each. Aside from being a consideration for determining the type of service, it is also a consideration for bed capacity and determining tariffs.

Internal aspects, such as the finances of the PT which will work on the project of establishing a sharia-based class D general hospital, are deemed sufficient to invest in the establishment of this sharia-based class D hospital. The PT is PT which is a member of the PT group which has overseen several clinics, pharmacies, and clinical laboratories. In addition, the PT already

has land (5,600m<sup>2</sup>) for the location of this project in Joho Purwanto Wonogiri. The location of this project is by the Wonogiri Regency Regional Regulation Number 2 of 2020, it is stated that in the Purwanto area health facilities can be established. The project location is on the edge of the provincial highway that connects Wonogiri (Central Java) with Ponorogo (East Java), this road is crossed by two lanes. The land adjacent to the south of the project location is also an empty yard. So that the location of this land can be said to be very strategic to be used as a hospital.

The services that will be planned in this project are determined by taking into account the data on the 10 most common diseases in the Purwanto sub-district, the number of pregnant women and pregnant women with complications in Purwanto and surrounding areas, as well as the number of infant and under-five deaths in the coverage area. Internal Medicine, Obstetrics and Gynecology, Children's Health, Dentistry, General, Surgery, laboratory services, radiology, and Central Surgical Installation. In addition, taking into account the number of residents in the coverage area and the distribution of health facilities in the coverage area, the request was obtained for 86 beds. So that the type of hospital classification that is appropriate is class D general hospital. While considering the epidemiological data of the population of Purwanto and its surroundings, which are predominantly Muslim, the project to establish a sharia-based class D public hospital is considered quite appropriate. However, in the project of establishing a Sharia-based class D General Hospital, considering the company's capital and land resources, it was decided to have 60 beds.

In the analysis of the need for health human resources, if you look at the number of health human resources in Wonogiri, which is still lacking, then to meet the needs of human resources, recruitment from outside Wonogiri is needed. In addition, what needs attention, seeing the morbidity rate of the Wonogiri population between men (11.40%) and women which are almost the same (10.81%) [18], the human resource needs that may be difficult to meet is the need for male nurses, seeing that there are more female nurses than male nurses. So to minimize the need for male nurses, it is assumed that the nurse is a female nurse for the pediatric ward because the children have no obligation to cover their genitals.

The area of land required for the construction project of a sharia-based class D public hospital is adjusted to the Regional Regulation of Wonogiri Regency Number 2 of 2014 concerning Buildings, 60% KDB and 40% KDH. The land area for buildings is 3,360 m<sup>2</sup> and for green areas, it is around 2,240 m<sup>2</sup>. In the calculation of space requirements with a capacity of 60 beds, the interior and exterior spaces are 3,112 m<sup>2</sup> and 1,140 m<sup>2</sup> for the outside, and the total outdoor and indoor spaces are 4,252 m<sup>2</sup>. Therefore, to comply with local regulations, the building is made up of 2 floors<sup>22</sup>.

The financial analysis found that the total cost of the construction project of a sharia-based class D general hospital in Purwanto District, Wonogiri Regency was Rp. 42,231,739,375.00, this figure shows the magnitude of the investment value. This project is planned in 2 stages, Phase 1 development is adjusted to the applicable regulations so that in the first year the hospital can be operational. The second phase of construction is carried out in the first year. The purchase of

medical and non-medical equipment is also carried out in two stages, the first stage is a minimum purchase so that the hospital can operate. The projected income in the first year after the hospital starts operating is Rp. 32,361,000.00, while the income for the second year is Rp. 36,716,550,000.00. This figure is obtained with an outpatient tariff of Rp. 60,000 – Rp. 150,000.00 including medicine, doctor's services, and services for hospitals. Meanwhile, the hospitalization rate for 3 days of treatment is Rp. 3,000,000.00 per patient. This tariff, apart from considering competitors' rates, also takes into account the large profits taken in Islamic sharia rules. In Islamic sharia, there is no profit limit. The gain can be a lot, it can be a little. Unless there is already a price limit on the market at a certain price. The amount of profit here is allowed as long as there is no *ghoban* (deception). However, if profit-taking oppresses others, then the law is prohibited<sup>23</sup>.

Scholars have different opinions regarding the limits of profit-taking that oppress others and society. Some scholars think that the provisions for taking profit from the merchandise are left at the prices prevailing in the community. On the other hand, some scholars argue that it is considered unjust to take more than a third of the capital. Others argue that if you make a profit of more than one-sixth of your capital, then it is considered tyrannical to others<sup>24</sup>.

Projected costs include income tax and depreciation of fixed assets. In this project, the cash flow projection is projected until the 9th year, assuming that revenues and costs will increase by 5% in a year simultaneously. This cash flow projection will later be assessed for the feasibility of the investment. Several feasibility studies for the construction of existing hospitals, such as

those conducted by Bupala and Mudra (2015)<sup>25</sup> and Krishna (2016) used financial analysis and investment appraisal based on conventional economic theory, namely PP, NPV, IRR, and DCFR, because the hospitals built did not sharia-based. However, in the feasibility study conducted by Ashlihati & Pribadi (2019) on the class D general Islamic hospital project in the Karangmojo area of Gunung Kidul, the financial analysis uses NPV, IRR, and ARR. This project did not use investment feasibility assessments such as PP, ARR, NPV, DCFR, and MAPI. Because the assessment of the feasibility of the investment still uses the theory of the time value of money, this theory still contains an element of interest [26], even though the legal interest is the same as usury, which is haram, based on the letter al-Baqarah (2): 278. However, not prohibited from doing business for profit. One formula that does not use the interest mechanism is ISM, this formula uses a profit-sharing mechanism and business returns that occur in real terms,<sup>25</sup> so if you use this formula, what gives economic value is the use of available time, so that in Islam there is only the Economic Value of Time, not the Time Value of Money<sup>26</sup>.

The projected cash flows for these seven years will be assessed for investment feasibility using the ISM formula. It is assumed that the construction project is carried out for 1 year (year 0, so that the 1st year is expected to be ready to operate. Looking at the projected cash flow with the total project needs, the new surplus occurs in the 8th year or after 7 years of operation. However, in this project, The ISR is calculated in the 9th year or (after 8 years of operation) so that the ISR is 16.81%. Looking at the results of several other similar hospital feasibility studies, the average hospital achieves a return on investment

in the 7th year and above. Islamic financial analysis, the project of establishing a sharia-based class D general hospital is feasible to be established.

## 5. Conclusion

Based on the results of the situation, demand, needs, and sharia financial analysis, the sharia-based class D general hospital project in Purwantoro Wonogiri is feasible to be established with 60 beds capacity of 4,252 m<sup>2</sup> area, with an investment value of Rp. 42,231,739,375.00 through two steps constructions and ISR of 16.81% for 9 years. In line with population development, this sharia-based class D general hospital services need to be improved in terms of service number, type, range, and quality. Thus, it can carry out social functions and generate income to finance hospital operations on an ongoing basis.

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