

A Market Feasibility Of An Upcoming Hospital – Asahan District

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Abstract. *The Regional Government of Asahan Regency has a Healthy Asahan Program committed to creating conditions in Asahan Regency that are clean, comfortable, safe and healthy for residents to live in, which is achieved through the existence of hospitals that are able to provide services according to standards. The ratio of beds to population in Asahan Regency in 2022 is 1.03. The aim of the research is to see future hospital market opportunities in an effort to help the Asahan Sehat Regional Government's Healthy Program of Asahan Regency. We used a convergent parallel mixed methods design, in which qualitative and quantitative data were collected simultaneously. This research was conducted from April 2023 to July 2023. Research data was collected from 5 hospitals in Asahan Regency (H.Abdul Manan Simatupang Hospital, Ibu Kartini Hospital, Bunda Mulia Hospital, Permata Hati Hospital, and Seger Waras Hospital), Central Bureau of Statistics and the Asahan District Health Service. Data was analyzed using SWOT and the hospital's position was determined using SWOT scoring. The SWOT analysis shows that the existence of the new hospital in Asahan Regency is in Quadrant II, meaning that the future hospital has the opportunity to develop in Asahan Regency by minimizing weaknesses. Aspects of hospital location, service/market needs, infrastructure and competitive aspects must be the main focus.*

Keywords: *Asahan; Feasibility; Hospital; Market; SWOT*

INTRODUCTION

The Regional Government of Asahan Regency has ten superior programs which are targeted for achievement in 2021-2026 and are stated in the Regional Medium Term Development Plan (RMTDP) of Asahan Regency, one of which is Asahan Sehat. The Asahan Sehat Program is committed to creating conditions in Asahan Regency that are clean, comfortable, safe and healthy for residents to live in, which is achieved through the implementation of several integrated arrangements and activities agreed upon by the community and local government, such as the existence of hospitals that are able to provide services according to standards. Existing hospitals are required to continue to be proactive in managing and describing their main tasks and functions with various efforts to improve the quality of their services, especially in supporting the vision, mission and policies of the Regional Government of Asahan Regency (Pemerintah Kabupaten Asahan, 2021).

WHO standards state that whether or not the community's needs for referral and individual health services in an area are met can be seen from the ratio of beds to 1,000 residents. The WHO standard is 1 bed for 1,000 residents. The ratio of hospital beds in Indonesia from 2015 to 2020 is more than 1 per 1,000 population (the ratio of hospital beds in

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Indonesia in 2020 is 1.4). The bed ratio in North Sumatra Province in 2020 is 1.7. So that the number of beds in Indonesia and North Sumatra Province is sufficient (Kementerian Kesehatan, 2021). Asahan Regency has 11 general hospitals spread across 5 sub-districts. Most hospitals are located in West Kisaran District (Pemerintah Kabupaten Asahan, 2022). If we refer to the population of Asahan Regency in 2022 which is 777,626 people and the number of hospital beds currently available is 803, then the ratio of beds to population in Asahan Regency in 2022 is 1.03. This means that Asahan Regency only has 1 hospital bed per 1,000 population. This figure is still very small when compared to the regions of DKI Jakarta (bed ratio 3.1), North Sulawesi (bed ratio 2.7), West Papua (bed ratio 2.3), and East Kalimantan (bed ratio 2,0) (Kementerian Kesehatan, 2021).

This study was carried out to support the Asahan Sehat Program launched by the Regional Government of Asahan Regency by providing superior and reliable health services through health service facilities that provide services according to standards. The study of future hospital market opportunities can help the Regional Government of Asahan Regency realize a high level of health for the community by providing adequate service facilities, establishing integration in the health sector from various scientific disciplines, as well as fulfilling economic aspects like other business fields.

RESEARCH METHOD

Design

To obtain an in-depth understanding of the feasibility, we used a convergent parallel mixed-methods design, in which qualitative and quantitative data were collected simultaneously. This study was conducted from April 2023 until July 2023.

Population and Sample

Research data was collected from 5 hospitals in Asahan Regency (H.Abdul Manan Simatupang Hospital, Ibu Kartini Hospital, Bunda Mulia Hospital, Permata Hati Hospital, and Seger Waras Hospital), the Central Statistics Agency and the Asahan District Health Service.

SWOT Analysys

SWOT analysis is used to evaluate strengths, weaknesses, opportunities and threats in hospital strategic planning. In carrying out a SWOT analysis the data collected is:

Strength <ol style="list-style-type: none"> 1. The advantages that hospitals have 2. What makes the hospital better than other hospitals 3. The uniqueness of the hospital 4. What causes people to want to visit the hospital? 5. What do patients see as advantages of the hospital? 	Opportunity <ol style="list-style-type: none"> 1. What opportunities can be seen. 2. What trend developments are in line with hospital services.
Weakness <ol style="list-style-type: none"> 1. What is improved about the hospital 2. What hospitals should avoid 3. What factors cause low visits 4. What the patient sees as the hospital's weaknesses 5. What competitors are doing. 	Threat <ol style="list-style-type: none"> 1. Obstacles currently facing hospitals 2. What the hospital does 3. Technological developments that pose a threat to hospitals 4. Are there any changes to government regulations that threaten the development of the hospital?

SWOT analysis calculations were developed by Pearce and Robinson (1998) to know with certainty the true position of the organization. The calculations are carried out in three stages (Bajri and Sulistiadi, 2019), that is:

- Calculate the score (a) and weight (b) of factor points as well as the total number of multiplications of scores and weights ($c = a \times b$) for each S-W-O-T factor.
- Subtract the total number of factors S with W (d) and factors O with T (e); The resulting number ($d=x$) then becomes a value or point on the X axis, while the resulting number ($e = y$) then becomes a value or point on the Y axis.
- Find the position of the organization indicated by the point (x,y) in the quadrant.

SWOT Matrix	Opportunity	Treaths
Strength	A=Comparative Advantages	B=Mobilization
Weakness	C=Divestment/Investment	D=Damage Control

RESULT AND DISCUSSION

he research aims to look at future hospital market opportunities in an effort to help the Asahan Sehat Regional Government's Asahan Regency Government Program. Data from 6 hospitals in Asahan Regency was collected and then grouped into strengths and weaknesses in developing a hospital in Asahan Regency. The next stage will be a SWOT analysis and scoring to see the position of the hospital if a new hospital is to be developed in Asahan Regency.

Building a new healthcare facility (hospital) is more than just a construction project. Hospital businesses must consider changes in epidemiology and advances in medical practice to determine the types of facilities and services to be built. In addition, the health care sector is influenced by the local environment, so a strong understanding of the local health care environment where the hospital will operate is important in operations. (Nah and Osifodawodu, 2007). This is in accordance with the mandate of the Minister of Health of the Republic of Indonesia Regulation Number 4 of 2018 that hospitals must provide safe, quality, anti-discriminatory and effective health services by prioritizing the interests of patients in accordance with hospital service standards (Presiden Republik Indonesia, 2009b; Kementerian Kesehatan, 2018).

Table 1. Names of Hospitals and Beds in Asahan Regency

No	Name	Number of Beds
1	H. Abd. Manan Simatupang Hospital	187
2	Setio Husodo Hospital	88
3	Wira Husada Hospital	70
4	Ibu Kartini Hospital	100
5	Methodist Bintang Kasih Hospital	57
6	Bunda Mulia Hospital	60
7	Permata Hati Hospital	25
8	Lina Hospital	34
9	Sripamel Sei Dadap Hospital	40
10	Seger Waras Hospital	74
11	Utama Hospital	68
TOTAL		803

The number of beds currently available in Asahan Regency is recorded at 803 beds, while the 2022 population census shows the population of Asahan Regency is 777,626 people (equivalent to 777 beds), so the ratio of beds to 1,000 population in Asahan Regency is 1.03. This figure shows that the ratio of the number of beds to 1,000 residents in Asahan Regency in 2022 has reached the minimum standard from WHO (Presiden Republik Indonesia, 2009a). However, another thing that must be considered is fulfilling accessibility by considering a wide coverage area, geographical conditions and remote locations that contribute to the time and distance to reach health service facilities (Direktorat Jendral Pelayanan Kesehatan, 2020).

Table 2. Performance Indicators for Several Hospitals in Asahan Regency

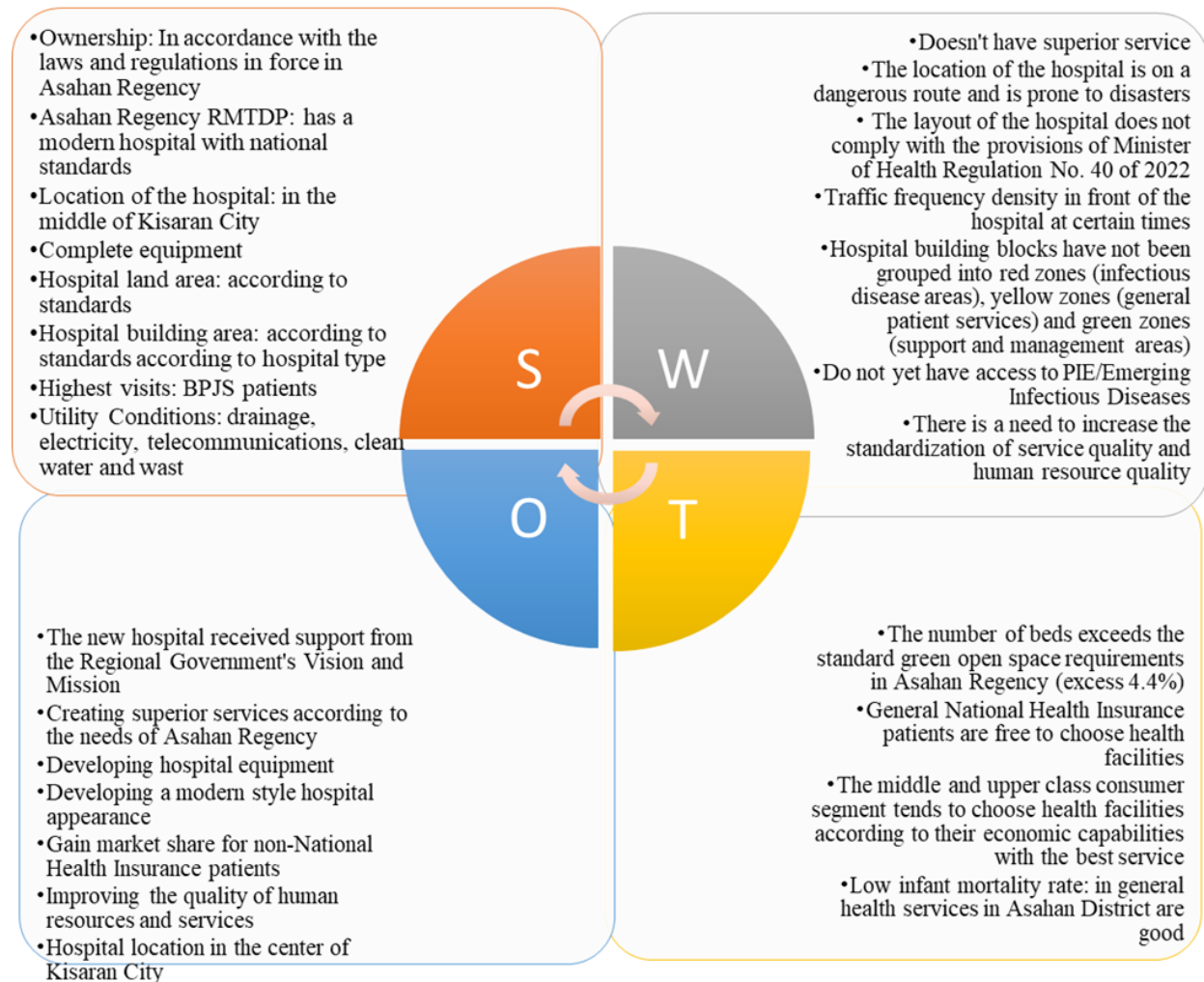
Indicator	H Abdul Manan Simatupang Hospital (2021)	Ibu Kartini Hospital (2019)	Bunda Mulia Hospital (2020)	Permata Hati Hospital (2019)	Seger Waras Hospital (2018)
CHI	78,00	-	-	-	-
BOR	80%	46%	64%	54%	38,6%
LOS	5 hari	3 hari	5 hari	4 hari	2 hari
BTO	42 Kali	38 Kali	45 kali	29 Kali	59,7 kali
TOI	2 hari	5 hari	4 hari	2 hari	3 hari
NDR	14%				0,009
GDR	41%				1%

CHI: Community Health Index; BOR: Bed Occupancy Ratio; LOS: Length of Stay; BTO: Bed Turn Over; TOI: Turn Over Interval; NDR: Net Death Rate; GDR: Gross Daeth Rate

A hospital is a health service institution that provides complete individual health services, providing inpatient, outpatient and emergency services. (Kementrian Sekretariat Negara, 2021). Hospitals have an obligation to provide safe, quality, anti-discriminatory and effective health services by prioritizing the interests of patients in accordance with hospital service standards (Kementerian Kesehatan, 2018). Quality indicators will provide an overview of the level of health services for individuals and communities that can promote optimal health, provided in accordance with service standards and the latest scientific developments and to fulfill the rights and obligations of patients (Kementerian Kesehatan, 2022).

The Bed Occupancy Ratio of several hospitals in Asahan Regency was recorded at >50%, meaning that the utilization rate for hospital beds is above 50%. However, this figure is still small when compared with the ideal BOR parameters according to national health service measurement standards (Depkes RI, 2005) namely 60% - 85%. This condition equates to acute bed occupancy rates in Slovakia's hospitals being well below the average of certain European countries. This low efficiency is mainly caused by inappropriate hospital design, low asset

utilization, and inappropriate functional models (Restricted, 2014). Length of Stay shows the level of efficiency and quality of service. The LOS of several hospitals in Asahan Regency has reached the ideal value based on national health service measurement standards, namely 6-9 days. Turn Over Interval (TOI) describes the average number of days a bed is occupied, from being occupied to the next time it is occupied. The TOI of several hospitals in Asahan Regency has also reached the ideal figure referring to the national health service measurement standard, namely 1-3 days. Bed Turn Over is the use of a bed in one period, several times a bed is used in a certain unit of time. Ideally, in one year the average bed is used 40-50 times. This indicator value is used to plan future hospital development (Rahmadiliyani, Nugroho and Estiyana, 2020).



Quadrant position in the axis as shown in Figure 1

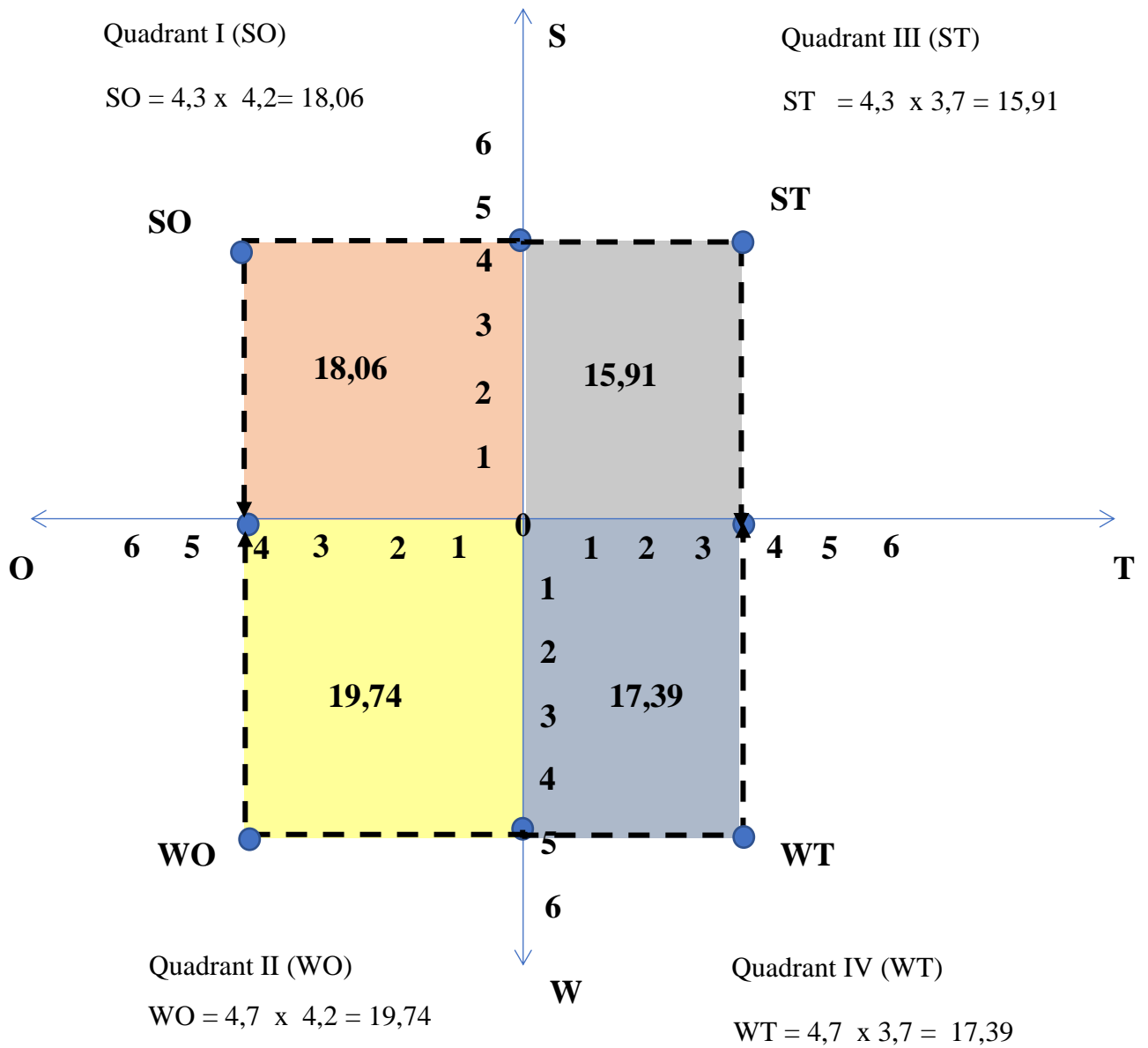


Figure 1. SWOT Analysis Quadrant Position of Future Hospitals in Asahan Regency

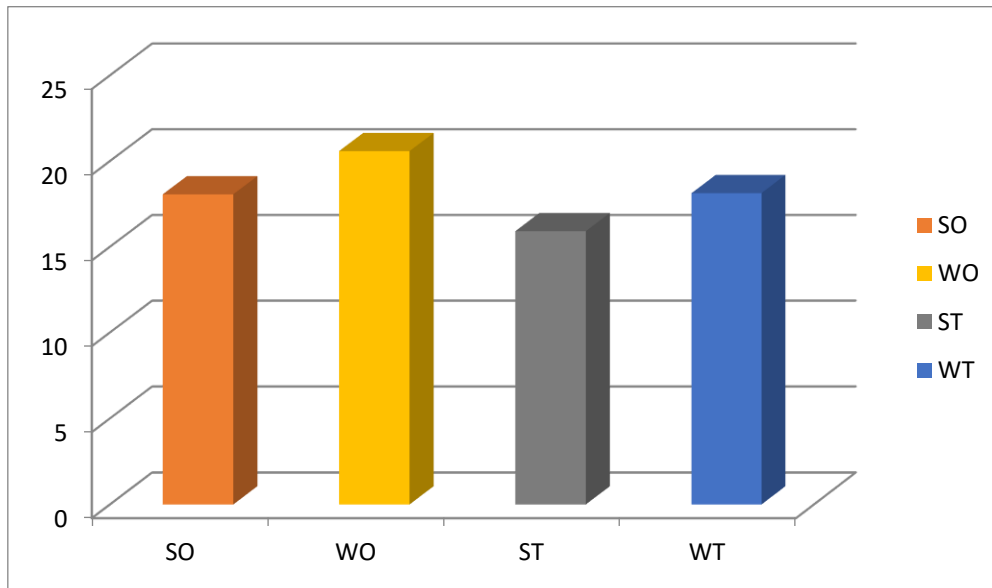


Figure 2. Quadrant Position in the Chart of Future Hospitals in Asahan Regency

The SWOT analysis shows the fact that the existence of the new hospital in Asahan Regency is in Quadrant II, this means that the future hospital in Asahan Regency has weaknesses which can be minimized with several efforts to select a strategic hospital location and in accordance with Government Regulation of the Republic of Indonesia Number 47 of 2021 (Kementrian Sekretariat Negara, 2021). Efforts are made to reduce the density and congestion of the traffic lane in front of the hospital with traffic engineering (Old Colony Planning Council (OCPC), 2015). Hospital building blocks are adapted to the functions of emergency rooms, intensive care and environmental safety. Building blocks are grouped into 3 zones according to the provisions of Minister of Health Regulation No. 40 of 2022 (Kemenkes RI, 2021; Kemenkes, 2022). Creating access to PIE/Emerging Infectious Diseases, increasing standardization of service quality (accreditation, ISO Improvement of quality indicators) and improving the quality of human resources (skilled nurse training) (Kementarian Kesehatan, 2020).

The future hospital in Asahan Regency can make several efforts to obtain opportunities with several conditions, including the Vision and Mission of the Regional Government of Asahan Regency (2021-2026) to have a modern style hospital with national standards. Creating superior services according to the needs of Asahan Regency by paying attention to the tendencies of the 10 biggest diseases. Developing advanced and modern equipment. Developing a modern concept hospital according to the needs of Asahan Regency. Maximizing non-JKN patients by providing hospital facilities and infrastructure in accordance with demand and people's purchasing power (Kemenkes RI, 2021). The location of the hospital is in the city

center so that its presence can be maximized by improving the appearance of the hospital and accessibility. Site assessments are also important to assess possible service delivery programs that will advance healthcare facilities, obtain planning permission, overcome site-specific constraints, possibly build infrastructure and build facilities. This points to a broader hospital masterplan that has the potential to help deliver alternative and more valuable land uses (Kementerian Kesehatan, 2012; Robinson *et al.*, 2020). Maximizing improvements in the quality of human resources and services to support improvements in hospital quality and patient satisfaction which ultimately has the power to increase visits.

Internal aspect to see the strength and ability to survive so that it does not become an obstacle in future hospital operations. One of the Regional Government's missions in the health sector through one of its programs "Asahan Sehat" is to have a modern hospital of national standard (Regulation No. 3 of 2021). So the existence of the future hospital is expected to be able to support the vision and mission of the regional government, supported by equipment, human resources and buildings according to hospital standards. In general, the utility network in Asahan Regency is complete, such as the rainwater runoff drainage network, the PLN electricity network, the telecommunications network, clean water, and the household garbage/waste network in solid form that is transported regularly/scheduled. However, hospital building blocks must prioritize the function of emergency rooms, intensive care and environmental safety. Building blocks or areas in hospitals must be grouped into 3 zones, namely the red zone (patient service area for emerging infectious diseases), the yellow zone (general patient service area), and the green zone (support and management area) (Permenkes No. 40 of 2022 concerning Technical Requirements for Hospital Health Buildings, Infrastructure and Equipment) (Kemenkes, 2022). Hospitals must also have access to PIE/emerging infectious diseases in accordance with standardization of service quality and improving the quality of human resources. The excessive size of the building, technical deficiencies and inappropriate internal functional arrangement of the hospital, limit the possibility of modernization and increasing efficiency and productivity (Restricted, 2014). In the future, hospitals must also consider providing superior services that are needed in Asahan Regency, developing sophisticated and modern equipment, developing modern concept hospitals by developing architectural designs and interior designs that can have a positive effect on patient psychology. A beautiful, functional, efficient and clean building gives a positive impression to all hospital users. So that community groups who are not registered with JKN, especially those from the upper middle class, have various choices of places for treatment.

Middle and upper class community groups have alternative choices of service locations. The group will consider hospitals with good service appeal and attractive buildings as places of service. Aspects of hospital location, service/market needs, infrastructure, competitive aspects, economic aspects also need to be considered in future hospital development (Kementarian Kesehatan RI, 2012; Ginting and Fentiana, 2020).

CONCLUSION

The ratio of beds to 1,000 residents in Asahan Regency is 1.03. The Bed Occupancy Ratio for several hospitals in Asahan Regency was recorded at >50%. LOS for several hospitals in Asahan Regency is 3-5 days. TOI for several hospitals in Asahan Regency is 1-3 days. Bed Turn Over in several hospitals in Asahan Regency is 40-50 times. The SWOT analysis shows the fact that the existence of the new hospital in Asahan Regency is in Quadrant II, meaning that the future hospital has the opportunity to develop in Asahan Regency by minimizing weaknesses. Aspects of hospital location, service/market needs, infrastructure and competitive aspects must be the main focus.

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APPENDIX

QUESTIONNAIRE FOR INSTITUTIONAL SURVEY (HOSPITALS)

- Type of hospital?
- Number of hospital beds?
- Average OPD/ per day
- Average patients referred to other hospitals every month
- Reasons for Reference?
- Total number of surgeries per day
- Total manpower of the hospital

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