SWOT-AHP AS A METHOD OF PUBLIC SERVICE STRATEGY

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ABSTRACT. SWOT-AHP helps companies to develop and plan strategic alternatives to overcome all the challenges faced. The purpose of this study is to determine the public service strategy of the Makassar Laboratory Center. This research is a quantitative research, using the SWOT-AHP approach to determine the right strategy in improving organizational performance. Data is collected from the documentation results and then analyzed according to SWOT-AHP stages. The results of data processing show that in the item of strength, having an international standard TB lab is the most dominant strength possessed by MHLC, in the item of weakness, the biggest weakness is the organizational culture that still tends to be negative (rigid, individual, passive, lack of empathy in providing services, so efforts need to be made for the organization to carry out public services based on public excellent. The biggest opportunity possessed by MHLC is increasing public awareness of the importance of detecting diseases early with laboratory tests, while the biggest threat faced by MHLC is the entry of foreign investors in laboratory services that have more sophisticated systems and equipment (the threat of global competition in the AFTA era). After the SWOT-AHP analysis, 4 strategies emerged, namely: increasing the promotion and technology-based information services, building an integrated information technology system, improving the quality and quantity of human resources, and maximizing tool utilization by adding new types of examinations.

Key words: laboratory; service; SWOT; AHP

SWOT-AHP SEBAGAI METODE STRATEGI PELAYANAN PUBLIK

ABSTRAK. SWOT-AHP membantu perusahaan untuk mengembangkan dan merencanakan alternatif strategis untuk mengatasi semua tantangan yang dihadapi. Tujuan penelitian ini adalah untuk menentukan strategi pelayanan publik Balai Besar Laboratorium Makassar. Penelitian ini merupakan penelitian kuantitatif, dengan menggunakan pendekatan SWOT-AHP untuk menentukan strategi yang tepat dalam meningkatkan kinerja organisasi. Data dikumpulkan dari hasil dokumentasi kemudian dianalisis sesuai tahapan SWOT-AHP. Hasil olah data menunjukkan bahwa pada item kekuatan, memiliki lab TB yang berstandar internasional merupakan kekuatan yang paling dominan yang dimiliki oleh BBLK Makassar, pada item kelemahan, kelemahan terbesar adalah budaya organisasi yang masih cenderung negatif (kaku, individual, pasif, kurang empati dalam memberikan pelayanan, sehingga perlu dilakukan upaya-upaya bagi organisasi untuk melakukan pelayanan publik yang berdasarkan public excellent. Sedangkan peluang yang paling dominan untuk dimanfaatkan adalah kesadaran masyarakat akan pentingnya mendeteksi penyakit sejak dini dengan tes laboratorium sedangkan ancaman terbesar yang dihadapi BBLK Makassar adalah masuknya pemodal asing dalam pelayanan laboratorium yang memiliki sistem dan peralatan yang lebih canggih (ancaman persaingan global di era AFTA). Setelah dilakukan analisis SWOT-AHP, muncul 4 strategi yakni: meningkatkan promosi dan layanan informasi berbasis teknologi, membangun sistem informasi teknologi yang saling terintegrasi, meningkatkan kualitas dan kuantitas SDM, dan memaksimalkan utilisasi alat dengan menambah jenis pemeriksaan baru.

Kata Kunci: laboratorium; pelayanan; SWOT; AHP

INTRODUCTION

Changes and environmental developments in the era of globalization like today have a lot of influence on the order of society which can be seen from various fields of economy, law, government, politics, social, and culture. One of them occurs in government administration, government officials as service providers and public organizations in charge of providing services to the community are obliged to provide good and satisfactory services. (Arhas et al., 2022; Mustafa et al., 2022; Niswaty et al., 2019; Rahman et al., 2022)

The implementation of good services to the community must be supported by employees within government agencies who are competent, disciplined, able to understand and be able to carry out their duties and functions in accordance with the areas of responsibility imposed on them. In addition, they must certainly have a moral commitment and responsibility to society. People certainly want to get good quality services from the government. Quality service or commonly referred to as excellent service is the best service that meets service quality standards.

Public service basically concerns a very broad aspect of life. Service is very important and must be provided by the government which acts as a state

servant and public servant. Because of its orientation to the public or the people, the government strives in such a way as to provide the best service. This has been clearly stated in the preamble to the fourth paragraph of the 1945 Constitution, which covers 4 (four) aspects of the main services of the government apparatus to the community (Madubun &; Akib, 2017). Therefore, service in all aspects must be given to the maximum. To produce maximum service, a strategy is needed to realize this, because as revealed by Priatna (2022), that strategy execution is not always easy, and many obstacles make strategies fail.

Strategy tools to create competitive advantage and then becomes a dynamic action to respond to internal and external advantages (Suwarni et al., 2021). One way that can be done is to determine the right strategy. The right strategy can be done using SWOT analysis. SWOT analysis consists of strengths, weakness, opportunity, and threats is a structured decision-making process originally developed for strategic planning in business. SWOT analysis evaluates internal strengths and weaknesses, as well as external opportunities and threats within the organizational environment. Internal analysis is used to identify the resources, capabilities, core competencies, and competitive advantages inherent in the organization. External analysis identifies market opportunities and threats by looking at competitors' resources, industry environment, and general environment.

Internal analysis of the organization is essential in identifying sources of competitive advantage. This indicates the development of resources that are fast and maintained to remain competitive. The strategic management process begins with an in-depth evaluation of the organization by looking at its internal resources and capabilities, this becomes the source of its core competencies, which in turn creates a competitive advantage. The purpose of external environment analysis is to help organizations recognize major developments and future implications. The external environment consists of variables that are beyond the control of the organization, but require analysis to realign the company's strategy to change the business environment. External analysis identifies possible threats and opportunities for further expansion. Proper internal and external analysis helps the organization to be able to solve the problems faced by the organization.

Solving problems by generating and considering more alternatives built from a more rigorous analysis will promise a more favorable outcome, including providing a long-term direction to go; helping the organization adapt to changes; making an organization more effective; and being able to make the organization. Identify an organization's comparative advantage in an increasingly risky environment. Therefore,

the strategy produced by SWOT analysis needs to be further analyzed using the Analytical Hierarchy Process (AHP) method to produce the best of the best solutions.

Analytical Hierarchy Process is a decision support model developed by Thomas L. Saaty. This decision support model will break down complex multi-factor or multi-criteria problems into a hierarchy. Hierarchy is defined as a representation of a complex problem in a multi-level structure where the first level is the goal, followed by the level of factors, criteria, sub-criteria, and so on down to the last level of alternatives (Kaymaz et al., 2022; J. Lee et al., 2021; Y. Lee et al., 2021). With hierarchy, a complex problem can be broken down into groups which are then arranged into a form of hierarchy so that the problem will appear more structured and systematic.

The ranking of key SWOT factors found through the AHP methodology will help the companies under study to develop and plan strategic alternatives to overcome all the challenges faced. Using AHP, each SWOT group can be created as a pairwise comparison matrix, group weights and intensities and SWOT factors can be measured (William Ho & Xin Ma, 2018; Hanming Li et al., 2021)

The Makassar Health Laboratory Center (MHLC) as a Technical Implementation Unit (TIU) of the Indonesian Ministry of Health located in South Sulawesi, provides services for examination of clinical samples and public health samples. The performance of laboratory services can be seen from the field of clinical laboratory examination services and health tests as well as public health laboratory examination services.

Based on the publication released by BBLK, the consumer satisfaction survey is in the good category, with a percentage of 81.7% below the predetermined target of 83%. Furthermore, based on the 2020-2024 strategic plan, in general, the number of examinations at BBLK in 2015-2019 has increased from year to year, but some examinations have fluctuated, such as in pathology examinations, microbiological examinations, and ECG medical support. This result is material for MHLC to improve services so that the number of examinations can increase from year to year. In addition, the number of Human Resources (HR) owned by MHLC mostly does not have competency certification, even though MHLC is a source of laboratory reference centers in Eastern Indonesia

METHOD

This research is quantitative research with documentation data collection method. The data obtained is secondary data. Data was obtained from the publication of the 2020-2024 strategic plan of the

Makassar Health Laboratory Center. The data taken is the SWOT analysis data of each item (score). Next, the data is rated using a scale of 1-5 to produce a new score. Then the calculation of the AHP matrix for each item is carried out. The next step is to do calculations for each alternative that fits the public service criteria (SWOT-AHP). Furthermore, internal and external calculations are carried out to determine the 4 best strategies.

In the calculation of the AHP matrix, the maximum λ value, Consistency Index (CI) and Consistency Ratio (CR) are determined. This calculation aims to see the judgment of the assessment of SWOT items made in the form of a diagonal matrix, at this stage it will produce a local value. If the CI and CR values are less than 0.1 then the assessment can be said to be consistent, so it can be continued for SWOT-AHP calculations.

$$= \frac{\lambda \max - n}{n - 1}$$

$$CR = \frac{CI}{RI}$$

λ max= eigenvalue matrix
n= number of component elements
RI=random consistency index value

The SWOT-AHP stage is carried out by calculating the global value first, the global value is obtained by multiplying the local value and SWOT factor. SWOT factors are obtained by comparing each S, W, O, and T item. After obtaining the global value, the next step is to calculate the score of each alternative juxtaposed with the SWOT item. Then the total value is calculated by multiplying the global value by the alternative score.

The final stage is the internal-external calculation. Internal calculations are carried out by subtracting the strengths and weaknesses of each alternative. External calculations are carried out by subtracting the opportunities and challenges of each alternative.

RESULTS AND DISCUSSION

Data obtained from the strategic plan of the Makassar Health Laboratory Center were processed according to a predetermined scale and adjusted to the purpose of research focusing on public services. (Table 1)

Based on the calculation results, SWOT matrix information is obtained. S weighs 0.39, W weighs 0.13, O weighs 0.39, and T weighs 0.13. Further can be seen in Table 2:

Table 1. SWOT Analysis

No	Strength Factor	Score
1	Accredited ISO/IEC 17025:2005, ISO/IEC 17043, KALK and ISO/IEC 15189	10
2	Have the latest laboratory equipment in several fields of examination	9,6
3	Having superior and competent human resources in their fields	7,8
4	Have implemented flexible financial management (BLU status)	6,8
5	Eastern Indonesia Regional Health Laboratory Referral Center	5,8
6	As the organizer of the Eastern Indonesia Regional Health Laboratory Quality Test (PME)	10,7
7	As a place for organizing guidance and research	6,5
8	Have competitive rates	8,1
9	Has an international standard TB lab	9,6
	Total	74,90

No	Weakness Factors	Score
1	Less strategic office location	5,3
2	Information systems are not entirely digital-based and integrated	8,5
3	Organizational culture that still tends to be negative (rigid, individual, passive, lack of empathy in providing services)	9,6
4	Weak internal control system	11
5	Promotion and public information services have not been carried out optimally	8,5
6	There are several examination parameters that cannot be carried out and not all examination parameters have been accredited	6,7
7	Planning is not optimal	6,4
8	Do not yet have a database related to the target area	7,9
9	Limited funding for training and improving the skills of both technical and non-technical employees	6,4
10	Still lack of support personnel (non-technical)	7,5
		77,8

No	Opportunity Factor	Score
1	The existence of ministerial policies related to the PPRA program (Antibiotic Resistance Prevention Program)	7,6
2	Laboratory examination is now a determinant of diagnosis	8,3
3	Increased public awareness of the importance of detecting diseases early with laboratory tests	8,3
4	The existence of regulations from the Ministry of Environment, requires every company to have an environmental permit	9,7
5	There is a regulation from the Ministry of Manpower, requiring every company to carry out routine medical check-ups for its employees	7,3
6	Information technology support	8,3
7	Increased trust of laboratories and companies to work together	11,3
8	Research results in the medical field that support laboratory functions	6,4
9	There is certainty of the source of funds from the government	7,6
		74,8

No	Threat Factors	Score
1	Regulatory uncertainty resulting in overlapping functions of government laboratories	12,9
2	Regulations related to BPJS cooperation	5,4
3	Industrial Revolution 4.0	11,7
4	The rapid growth of the number of clinical laboratories	8,8
5	Reduction of government subsidies	10,9
6	The entry of foreign investors in laboratory services that have more sophisticated systems and equipment (the threat of global competition in the AFTA era)	7,7
7	The image of government agencies is still not good in the eyes of the public	7,7
		65,1

Table 2. SWOT Factor Weights

	S	W	O	T	Total	Weight
S	1	3	1	3	8	0,39
W	0,33	1	0,33	1	2,67	0,13
O	1	3	1	3	8	0,39
T	0,33	1	0,33		1,67	0,08
Total					20,33	1

Source: Data processed (2023)

After determining the weight of the SWOT factor, proceed to calculate the SWOT factor item as a whole. Based on the calculation results, the CI value of each SWOT item is below 0.1, meaning that the judgment on the assessment of Strenghts, Weakness, Opportunity, and Weakness items is consistent. So that the resulting data can be trusted. The next stage is to determine the best alternative using SWOT-AHP. For more details can be seen in Table 3:

Based on table 1 There are 10 alternatives that will be tested in this study: maintaining and improving service quality; strengthening networking by utilizing existing regulations, maximizing tool utilization by adding new types of inspections; increase promotion and technology-based information services; improve the quality and quantity of human resources; the realization of consumer satisfaction; create value by vigorously promoting superior services, strengthening asset management (both current and fixed assets) to optimize resources; establish an effective internal control system; Build an integrated information technology system.

All alternatives are calculated to determine the score and total value based on the SWOT item. The score is obtained from the calculation of factor weights for each item, then continued with the calculation of the total value by multiplying the global value by the score of each alternative. The results of data processing show that in the item of strength, having an international standard TB lab is the most dominant strength possessed by MHLC, in the item of weakness, the biggest weakness is the organizational culture that still tends to be negative (rigid, individual, passive, lack of empathy in providing services, so efforts need to be made For organizations to perform public services based on public excellent. While the most dominant opportunity to be utilized is information technology support, while the biggest threat faced by MHLC is the supply of foreign investors in laboratory services who have more sophisticated systems and equipment (the threat of global competition in the AFTA era). More details are presented in Table 4.

After determining the score of each item, the final stage is to determine internal and external factors. Internal factors are the result of the reduction of strength-weakness, and external factors are the reduction of the ng-threat advantage. The calculation results obtained that all strategies are in quadrant III, meaning that the organization must support aggressive strategies. This means that BBLK faces a huge market opportunity, namely by increasing

public awareness of the importance of detecting diseases early with laboratory tests, but on the other hand facing internal obstacles, namely organizational culture that still tends to be negative (rigid, individual, passive, lack of empathy in providing services . These weaknesses must be minimized so that they can seize better market opportunities. For more details can be seen in Table 5 and Figure1.

Table 5. SWOT quadrant determination

	S-W	0-T	Quadrant	Difference
Alt 1	-0,17	1,37	3	1,20
Alt 2	-0,38	1,08	3	0,70
Alt 3	-0,15	1,62	3	1,47
Alt 4	-0,07	1,85	3	1,78
Alt 5	-0,11	1,57	3	1,46
Alt 6	-0,18	1,32	3	1,14
Alt 7	-0,23	1,47	3	1,24
Alt 8	-0,17	1,63	3	1,46
Alt 9	-0,06	1,46	3	1,40
Alt 10	-0,10	1,73	3	1,62
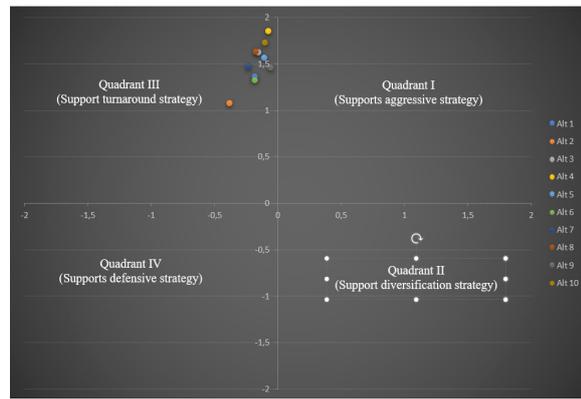
Figure 1. The location of the quadrant in strategy determination.

Based on the results of the SWOT-AHP analysis to face the challenges faced, the 4 most likely strategies are to increase the promotion and technology-based information services, build an integrated information technology system, improve the quality and quantity of human resources, and maximize the utilization of tools by adding new types of examinations.

Table 3. AHP Matrix

S	1	2	3	4	5	6	7	8		9	LV	λ max= 9.73
1	1,0	3,0	3,0	5,0	5,0	3,0	7,0	3,0		1,0	2,9	CI=0.09
2	0,3	1,0	1,0	1,0	3,0	0,3	3,0	0,3		0,3	0,8	CR=0.06
3	0,3	1,0	1,0	2,0	1,0	0,2	3,0	0,3		0,2	0,7	
4	0,2	0,3	0,5	1,0	1,0	0,3	1,0	0,2		0,3	0,4	
5	0,2	0,3	1,0	1,0	1,0	0,3	3,0	0,3		0,2	0,5	
6	0,3	3,0	5,0	3,0	3,0	1,0	5,0	0,2		0,2	1,3	
7	0,1	0,3	0,3	1,0	0,3	0,2	1,0	0,2		0,1	0,3	
8	0,3	3,0	3,0	5,0	3,0	5,0	5,0	1,0		0,3	1,9	
9	1,0	3,0	5,0	3,0	5,0	5,0	7,0	3,0		1,0	3,1	
					Total						11,9	

W	1	2	3	4	5	6	7	8	9	10	LV	λmax=
1	1,0	0,2	0,1	0,3	0,2	0,2	0,3	0,5	0,3	0,2	0,3	10.78
2	5,0	1,0	1,0	1,0	1,0	1,0	2,0	4,0	3,0	1,0	1,6	CI= 0.09
3	7,0	1,0	1,0	2,0	1,0	1,0	3,0	5,0	3,0	2,0	2,0	CR= 0,06
4	4,0	1,0	0,5	1,0	0,5	0,5	1,0	3,0	1,0	1,0	1,0	
5	6,0	1,0	1,0	2,0	1,0	1,0	2,0	4,0	2,0	1,0	1,7	
6	6,0	1,0	1,0	2,0	1,0	1,0	7,0	3,0	2,0	0,5	1,7	
7	3,0	0,5	0,3	1,0	0,5	0,1	1,0	2,0	3,0	0,5	0,8	
8	2,0	0,3	0,2	0,3	0,3	0,3	0,5	1,0	0,2	1,0	0,4	
9	3,0	0,3	0,3	1,0	0,5	0,5	0,3	5,0	1,0	1,0	0,8	
10	5,0	1,0	0,5	1,0	1,0	2,0	2,0	1,0	1,0	1,0	1,3	
					Total						11,7	

W	1	2	3	4	5	6	7	8		9	LV	λ max= 9.53
1	1,0	0,3	0,3	0,5	0,5	0,3	0,3	0,5		0,3	0,5	CI=0.07
2	3,0	1,0	1,0	2,0	2,0	2,0	2,0	2,0		0,3	1,4	CR=0.06
3	3,0	1,0	1,0	2,0	2,0	1,0	3,0	2,0		1,0	1,5	
4	2,0	0,5	0,5	1,0	1,0	0,5	1,0	1,0		0,5	0,8	
5	2,0	0,5	0,5	1,0	1,0	0,3	1,0	2,0		0,5	0,8	
6	3,0	0,5	1,0	2,0	3,0	1,0	1,0	1,0		1,0	1,2	
7	4,0	0,5	0,3	1,0	1,0	1,0	1,0	3,0		1,0	1,1	
8	2,0	0,5	0,5	1,0	0,5	1,0	0,3	1,0		0,5	0,7	
9	3,0	3,0	1,0	2,0	2,0	1,0	1,0	2,0		1,0	1,5	
					Total						9,6	

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T	1	2	3	4	5	6	7	LV	
1	1,0	3,0	1,0	0,2	0,5	0,1	1,0	0,7	λ max= 7.31
2	0,3	1,0	1,0	0,3	0,3	0,2	1,0	0,5	CI=0.05
3	1,0	1,0	1,0	0,5	0,3	0,2	1,0	0,6	CR=0.03
4	5,0	3,0	2,0	1,0	1,0	0,3	3,0	1,5	
5	2,0	3,0	4,0	1,0	1,0	0,5	3,0	1,6	
6	7,0	6,0	6,0	3,0	2,0	1,0	6,0	3,1	
7	1,0	1,0	1,0	0,3	0,3	0,2	1,0	0,6	
			Total					8,6	

Table 4. SWOT Matrix -AHP

No	Strength Factor			Score										Total Value									
		LV	GV	Al 1	Al2	Al 3	Al 4	Al 5	Al 6	Al 7	Al 8	Al 9	Al 10	Al 1	Al2	Al 3	Al 4	Al 5	Al 6	Al 7	Al 8	Al 9	Al 10
1	Accredited ISO/IEC 17025:2005, ISO/IEC 17043, KALK and ISO/IEC 15189	0,24	0,10	0,62	0,18	0,71	0,79	0,75	0,36	0,41	0,17	0,29	0,52	0,06	0,02	0,07	0,08	0,07	0,03	0,04	0,02	0,03	0,05
2	Have the latest laboratory equipment in several fields of examination	0,07	0,03	0,62	0,47	0,88	0,79	0,19	0,48	0,41	0,22	0,29	0,65	0,02	0,01	0,02	0,02	0,00	0,01	0,01	0,01	0,01	0,02
3	Having superior and competent human resources in their fields	0,06	0,02	0,53	0,47	0,53	0,42	0,94	0,60	0,68	0,50	0,57	0,35	0,01	0,01	0,01	0,01	0,02	0,01	0,02	0,01	0,01	0,01
4	Have implemented flexible financial management (BLU status)	0,04	0,01	0,21	0,18	0,18	0,16	0,19	0,24	0,27	0,22	0,57	0,13	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,01	0,00
5	Eastern Indonesia Regional Health Laboratory Referral Center	0,05	0,02	0,26	0,74	0,71	0,42	0,38	0,36	0,27	0,67	0,29	0,52	0,00	0,01	0,01	0,01	0,01	0,01	0,00	0,01	0,01	0,01
6	As the organizer of the Eastern Indonesia Regional Health Laboratory Quality Test (PME)	0,11	0,04	0,26	0,79	0,35	0,42	0,19	0,36	0,27	0,44	0,29	0,52	0,01	0,03	0,01	0,02	0,01	0,02	0,01	0,02	0,01	0,02
7	As a place for organizing guidance and research	0,03	0,01	0,18	0,24	0,18	0,16	0,19	0,24	0,14	1,00	0,29	0,52	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,01	0,00	0,01
8	Have competitive rates	0,16	0,06	0,42	0,71	0,71	0,42	0,25	0,48	0,41	0,17	0,29	0,26	0,03	0,04	0,04	0,03	0,02	0,03	0,03	0,01	0,02	0,02
9	Has an international standard TB lab	0,26	0,10	0,83	0,85	0,88	0,79	0,94	0,60	0,68	0,67	0,57	0,52	0,08	0,09	0,09	0,08	0,09	0,06	0,07	0,07	0,06	0,05
	Total			3,93	4,62	5,12	4,37	4,00	3,72	3,55	4,06	3,43	4,00	0,22	0,22	0,27	0,24	0,23	0,18	0,18	0,16	0,15	0,18

No	Weakness Factors			Score										Total Value									
		LV	GV	Al 1	Al2	Al 3	Al 4	Al 5	Al 6	Al 7	Al 8	Al 9	Al 10	Al 1	Al2	Al 3	Al 4	Al 5	Al 6	Al 7	Al 8	Al 9	Al 10
1	Less strategic office location	0,27	0,04	0,04	0,03	0,05	0,06	0,06	0,34	0,05	0,06	0,06	0,05	0,00	0,00	0,00	0,00	0,00	0,01	0,00	0,00	0,00	0,00
2	Information systems are not entirely digital-based and integrated	1,61	0,21	0,31	0,34	0,20	0,29	0,06	0,34	0,23	0,38	0,06	0,41	0,07	0,07	0,04	0,06	0,01	0,07	0,05	0,08	0,01	0,09
3	Organizational culture that still tends to be negative (rigid, individual, passive, lack of empathy in providing services)	2,04	0,27	0,36	0,18	0,15	0,09	0,51	0,40	0,40	0,28	0,13	0,07	0,10	0,05	0,04	0,02	0,14	0,11	0,11	0,08	0,03	0,02
4	Weak internal control system	1,04	0,14	0,13	0,12	0,15	0,06	0,35	0,18	0,14	0,06	0,47	0,13	0,02	0,02	0,02	0,01	0,05	0,02	0,02	0,01	0,06	0,02
5	Promotion and public information services have not been carried out optimally	1,69	0,22	0,31	0,49	0,20	0,51	0,06	0,05	0,40	0,06	0,06	0,32	0,07	0,11	0,04	0,11	0,01	0,01	0,09	0,01	0,01	0,07
6	There are several examination parameters that cannot be carried out and not all examination parameters have been accredited	1,74	0,23	0,31	0,12	0,08	0,24	0,12	0,40	0,40	0,47	0,06	0,13	0,07	0,03	0,02	0,05	0,03	0,09	0,09	0,11	0,01	0,03
7	Planning is not optimal	0,80	0,10	0,08	0,06	0,10	0,06	0,24	0,18	0,30	0,09	0,41	0,11	0,01	0,01	0,01	0,01	0,02	0,02	0,03	0,01	0,04	0,01
8	Do not yet have a database related to the target area	0,44	0,06	0,08	0,06	0,30	0,12	0,06	0,05	0,18	0,16	0,13	0,32	0,00	0,00	0,02	0,01	0,00	0,00	0,01	0,01	0,01	0,02
9	Limited funding for training and improving the skills of both technical and non-technical employees	0,82	0,11	0,31	0,18	0,15	0,26	0,51	0,14	0,09	0,13	0,06	0,21	0,03	0,02	0,02	0,03	0,06	0,01	0,01	0,01	0,01	0,02
10	Still lack of support personnel (non-technical)	1,26	0,17	0,08	0,06	0,05	0,06	0,06	0,05	0,05	0,06	0,06	0,05	0,01	0,30	0,21	0,01	0,01	0,01	0,01	0,01	0,01	0,01
	Total			2,11	1,71	1,47	1,72	2,20	2,25	2,25	1,98	1,48	1,75	0,40	0,65	0,44	0,31	0,36	0,39	0,42	0,32	0,21	0,28

No	Opportunity Factor			Score										Total Value									
		LV	GV	Al 1	Al2	Al 3	Al 4	Al 5	Al 6	Al 7	Al 8	Al 9	Al 10	Al 1	Al2	Al 3	Al 4	Al 5	Al 6	Al 7	Al 8	Al 9	Al 10
1	The existence of ministerial policies related to the PPRA program (Antibiotic Resistance Prevention Program)	0,46	0,18	0,18	0,71	0,18	0,16	0,14	0,23	0,21	0,20	0,23	0,14	0,03	0,13	0,03	0,03	0,03	0,04	0,04	0,04	0,04	0,03
2	Laboratory examination is now a determinant of diagnosis	1,41	0,56	0,62	0,18	0,71	0,42	0,57	0,23	0,21	0,53	0,23	0,57	0,34	0,10	0,39	0,23	0,32	0,13	0,12	0,30	0,13	0,32
3	Increased public awareness of the importance of detecting diseases early with laboratory tests	1,53	0,60	0,62	0,18	0,47	0,79	0,71	0,62	0,57	0,53	0,23	0,38	0,37	0,11	0,28	0,48	0,43	0,37	0,34	0,32	0,14	0,23
4	The existence of regulations from the Ministry of Environment, requires every company to have an environmental permit	0,81	0,32	0,18	0,71	0,18	0,16	0,43	0,23	0,21	0,53	0,23	0,38	0,06	0,23	0,06	0,05	0,14	0,07	0,07	0,17	0,07	0,12

No		LV	GV	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8	Alt 9	Alt 10	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8	Alt 9	Alt 10
5	There is a regulation from the Ministry of Manpower, requiring every company to carry out routine medical check-ups for its employees	0,84	0,33	0,18	0,71	0,18	0,16	0,43	0,23	0,21	0,53	0,23	0,38	0,06	0,23	0,06	0,05	0,14	0,08	0,07	0,18	0,08	0,13
6	Information technology support	1,25	0,49	0,47	0,35	0,74	0,79	0,38	0,62	0,57	0,60	0,92	0,71	0,23	0,17	0,36	0,39	0,19	0,30	0,28	0,29	0,45	0,35
7	Increased trust of laboratories and companies to work together	1,07	0,42	0,71	0,35	0,53	0,79	0,71	0,62	1,07	0,20	0,62	0,71	0,30	0,15	0,22	0,33	0,30	0,26	0,45	0,08	0,26	0,30
8	Research results in the medical field that support laboratory functions	0,73	0,29	0,18	0,18	0,18	0,42	0,14	0,62	0,21	0,20	0,23	0,43	0,05	0,05	0,05	0,12	0,04	0,18	0,06	0,06	0,07	0,12
9	There is certainty of the source of funds from the government	1,53	0,60	0,35	0,18	0,71	0,79	0,38	0,23	0,57	0,61	0,46	0,64	0,21	0,11	0,43	0,48	0,23	0,14	0,34	0,37	0,28	0,39
	Total			3,47	3,53	3,86	4,47	3,76	3,62	3,86	3,96	3,38	4,36	1,65	1,27	1,89	2,16	1,86	1,57	1,78	1,87	1,52	1,98

No	Threat Factors	Score											Total									
		LV	GV	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8	Alt 9	Alt 10	Alt 1	Alt 2	Alt 3	Alt 4	Alt 5	Alt 6	Alt 7	Alt 8	Alt 9	Alt 10
1	Regulatory uncertainty resulting in overlapping functions of government laboratories	0,67	0,06	0,27	0,54	0,08	0,07	0,18	0,07	0,07	0,14	0,08	0,06	0,01	0,03	0,00	0,00	0,01	0,00	0,00	0,01	0,00	0,00
2	Regulations related to BPJS cooperation	0,53	0,04	0,07	0,54	0,08	0,07	0,12	0,50	0,34	0,14	0,08	0,47	0,00	0,02	0,00	0,00	0,01	0,02	0,01	0,01	0,00	0,02
3	Industrial Revolution 4.0	0,62	0,05	0,07	0,29	0,46	0,50	0,24	0,07	0,07	0,14	0,08	0,38	0,00	0,01	0,02	0,03	0,01	0,00	0,00	0,01	0,00	0,02
4	The rapid growth of the number of clinical laboratories	1,53	0,13	0,50	0,07	0,31	0,50	0,44	0,40	0,56	0,29	0,08	0,47	0,06	0,01	0,04	0,06	0,06	0,05	0,07	0,04	0,01	0,06
5	Reduction of government subsidies	1,57	0,13	0,50	0,29	0,62	0,54	0,35	0,07	0,58	0,29	0,08	0,25	0,06	0,04	0,08	0,07	0,05	0,01	0,07	0,04	0,01	0,03
6	The entry of foreign investors in laboratory services that have more sophisticated systems and equipment (the threat of global competition in the AFTA era)	3,12	0,26	0,50	0,29	0,38	0,54	0,44	0,50	0,56	0,29	0,08	0,47	0,13	0,07	0,10	0,14	0,11	0,13	0,14	0,07	0,02	0,12
7	The image of government agencies is still not good in the eyes of the public	0,61	0,05	0,27	0,07	0,31	0,07	0,12	0,58	0,07	0,14	0,08	0,06	0,01	0,00	0,02	0,00	0,01	0,03	0,00	0,01	0,00	0,00
	Total			2,17	2,07	2,24	2,28	2,08	2,18	2,25	1,60	0,54	2,16	0,29	0,19	0,26	0,31	0,29	0,24	0,31	0,22	0,05	0,26

The biggest strength possessed by MHLC is that it has an international standard tuberculosis laboratory. TB laboratory facilities are an important component of a comprehensive health care system. In an increasingly competitive industry, costs and customer expectations are rising rapidly, so they can manage these facilities more efficiently and effectively.

Tuberculosis continues to be a major health challenge globally despite efforts to combat the disease. By having international standard facilities, MHLC will be a reference from Eastern Indonesia. This will be beneficial if the community can know the existence of the facility. This is in accordance with the strategy that needs to be carried out by MHLC, namely by conducting strategy-based promotions and information services. With the promotion that can be reached by everyone, it allows people to use the services of MHLC.

To be effective, promotion must be done in the form of communication, more emphasis is needed on the use of existing theoretical models of health promotion and understanding of health literacy. The results of the study of Davis et al. (2015) To ensure optimal results, messages must be patient-centered, accessible, acceptable, actionable, and in easy-to-understand format and language.

The biggest weakness possessed by MHLC is the organizational culture that still tends to be negative (rigid, individual, passive, lack of empathy in providing services. Therefore, improving the quality and quantity of human resources is a must. Research results Shimomura et al. (2013) indicates that the institution must organize human resources accordingly from the point of view of customer needs.

The success or failure of a modern business organization depends on the quality of its human resources. Well-trained and highly developed employees are considered the cornerstone for such success. (Gabbett, 2020; Sharma & Taneja, 2018) Human Resources can be improved through education and training activities in improving performance, in order to carry out full work with a great sense of responsibility towards the institution to face competition. The main point to winning the competition and maintaining the viability of the institution is to create a competitive advantage, a competitive advantage can be created by quality and capable resources.

The biggest opportunity possessed by MHLC is increasing public awareness of the importance of detecting diseases early with laboratory tests. With increasing public awareness, people will more often check their health if there are symptoms of the disease experienced, this allows the disease not to grow. Public awareness to conduct examinations is health literacy. Health literacy is defined as people's knowledge, motivation, and competence to access, understand, assess, and apply health information to make judgments and decisions regarding health care, disease prevention, and health promotion to maintain or improve quality of life. According to Moriyama et al. (2020) Health literacy is reported to be positively associated with several health-promoting behaviors.

The biggest threat posed by MHLC is the entry of foreign investors in laboratory services that
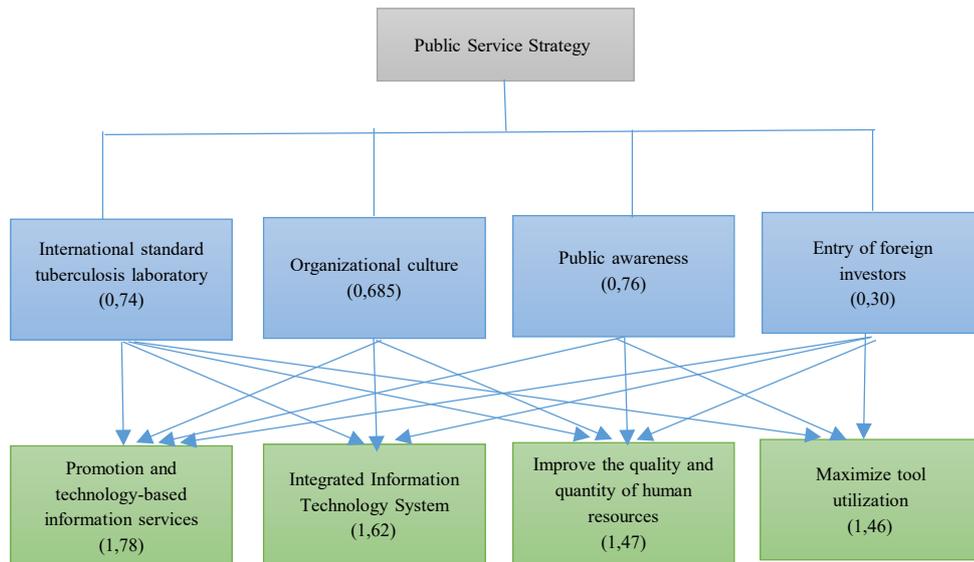
Figure 2: SWOT-AHP Diagram

have more sophisticated systems and equipment (the threat of global competition in the AFTA era). Competitors are companies that belong to the same strategic group tend to identify each other as threats to the organization (Beninger &; Francis, 2021; Gur &; Greckhamer, 2019; Hsieh & Hyun, 2018; Ye et al., 2022)

The results of the research of Williamson et al. (2021) Outperforming foreign competitors, companies not only need to understand successively high-end segments on the market ladder, but also need to be able to provide the level of quality and performance expected by similar customer segments. To achieve this, the strategy that needs to be applied in addition to those already described is to maximize tool utilization by adding new types of checks. So that customers do not need to go elsewhere to do medical examinations. In general, the results of SWOT-AHP are depicted in the form of a diagram, which is presented in Figure 2.

CONCLUSION

The Makassar Health Laboratory Center located on Jalan Perintis Kemerdekaan KM 11 Makassar is a vertical technical implementation unit owned by the Ministry of Health of the Republic of Indonesia which is under and responsible to the Directorate General of Health Services. The results of data processing show that in the item of strength, having an international standard TB lab is the most dominant strength possessed by MHLC, in the item of weakness, the biggest weakness is the organizational culture that still tends to be negative (rigid, individual, passive, lack of empathy in providing services, so efforts need to be made for the organization to carry out public services based on public excellent. While the most

dominant opportunity to be utilized is information technology support, while the biggest threat faced by MHLC is the supply of foreign investors in laboratory services who have more sophisticated systems and equipment (the threat of global competition in the AFTA era). There are 10 strategic offers offered, namely maintaining and improving service quality; strengthen networking by leveraging existing regulations; maximize tool utilization by adding new types of checks; increase technology-based information promotion and services; improve the quality and quantity of human resources; the realization of consumer satisfaction; create value by vigorously promoting superior services; strengthen asset management (both current, fixed assets) to optimize resources; establish an effective internal control system; and build an integrated information technology system. ASWOT-AHP analysis has been carried out, 4 strategies have emerged, namely: increasing the promotion and technology-based information services, building an integrated information technology system, improving the quality and quantity of human resources, and maximizing tool utilization by adding new types of examinations.

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