

Integrated marketing strategy to improve financial efficiency in hospitals

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Abstract: Hospital sustainability is critical to the SDGs, requiring cost and technology efficiency, but it faces challenges of high upfront costs. Operational changes, complex regulations, and supplier dependency hamper cost efficiency. Sustainability requires green and social strategies. Previous studies have shown that efficient cost management strategies are important, with specific challenges such as diversification, risk, and code errors. However, high investment, technology dependency, cybersecurity, automation, and insurance collaboration affect hospital flexibility and operations. The study offers insights into how hospitals invest in technology, staff training, and cybersecurity to improve integrated marketing strategies for the financial efficiency of hospitals in the Jakarta area of Indonesia. This study will analyze hospital marketing strategies to improve financial efficiency. It analyzes hospital financial efficiency using SWOT and QSPM. These two strategic analysis tools are used to identify strengths, weaknesses, opportunities, and threats that affect hospital financial efficiency. The results of this study will be used to provide strong, data-driven strategic recommendations. Hospitals must adapt to changes in healthcare technology through investment in technological innovation and staff training. Implementing modern technology and automating registration systems will improve operational efficiency and patient satisfaction. In addition, it highlights the hospital's strategic priorities to increase competitiveness: investment in technology and staff training, transparent pricing policies, cybersecurity and electronic medical records, automation for operational efficiency, and collaboration with insurance and digital marketing. These strategies are essential for the relevance and efficiency of hospital services.

Keywords: Hospital services, Hospital, SDGs, Operational efficiency, Staff training.

1. Introduction

Hospital sustainability is a crucial issue in efforts to achieve the Sustainable Development Goals (SDGs) set by the United Nations [1, 2]. In the context of the health sector, cost efficiency is one of the main challenges that must be faced so that hospitals can operate sustainably while meeting service quality standards [3, 4]. Focusing on cost efficiency is not only related to budget management but also has an impact on the quality of health services received by patients. Hospital sustainability in terms of cost efficiency requires a systematic approach to manage resources effectively, reduce waste, and ensure optimal budget utilization. Hospitals must consider various factors, such as technology, workforce, and operational processes, to improve efficiency. The implementation of appropriate information technology, such as hospital information systems (HIS), can help in managing patient data, scheduling, and more accurate financial reporting [5-7]. In addition, efficient procurement strategies and good inventory management also contribute to cost savings. However, the journey towards cost efficiency in the hospital sector is not without obstacles. One of the main obstacles is the high initial cost of technology and infrastructure investments [8, 9]. While these investments can provide long-term benefits in terms

of efficiency and cost savings, the initial burden is often challenging for hospitals, especially those with limited budgets.

In addition, changes in operational processes often require training and adaptation of the workforce. Implementing new systems or changes in procedures can generate resistance from staff who are comfortable with the old ways. Inadequate training and lack of support from management can slow the change process and reduce the effectiveness of cost-efficiency efforts. Another barrier is complex rules and regulations [10, 11]. Hospitals must comply with a variety of healthcare standards and regulations that often change policies related to costs and spending. Compliance with these regulations requires close oversight and additional resources, which can distract from focusing on cost-efficiency efforts. Another significant constraint is dependence on suppliers and service partners. Hospitals often rely on suppliers for medical equipment and pharmaceuticals [12-14]. Price fluctuations and unstable supplies can affect budgets and cost planning. Effective contract negotiations and careful procurement strategies are needed to overcome these dependencies. In achieving the SDGs, hospitals must pay attention to long-term sustainability by integrating environmentally and socially friendly practices. Efforts to reduce the environmental impact of hospital operations, such as medical waste management and energy efficiency, are an important part of sustainability strategies [15, 16]. While these measures may increase initial costs, they can reduce long-term negative impacts and support the achievement of the SDGs related to health and well-being and action on climate change. Overall, hospital sustainability in cost efficiency is a critical aspect in ensuring that healthcare institutions can continue to provide quality services while achieving sustainable development goals. Overcoming existing barriers and constraints requires a planned and sustainable approach, involving all stakeholders, and integrating best practices in cost management and resource management.

Existing studies reveal that Senanayake, et al. [17] the decline in inpatient costs is consistent, but increases sharply at the end of life, requiring efficient cost management strategies. Study Spoden, et al. [18] revealed preoperative risk evaluation improves treatment decisions for cost-effectiveness of treatment. The study Yuliasari, et al. [19] revealed that the Pharmacy Installation of Hospital X is in the second quadrant of SWOT, requiring a diversification strategy for development. The study Mendoza [20] states that cost reductions can be integrated with cost shifting when overhead costs are high and cannot be cross-subsidized. The study Siedlecki, et al. [21] revealed that hospitals in remote areas have better financial conditions than urban hospitals. The study Albagmi, et al. [22] revealed that 32% of primary and 5.3% of secondary code errors impacted the quality of service and patient safety, as well as hospital finances. The study Lee [23] reveals Declining assets, increasing liabilities, and medical deficits at national university hospitals; financial conditions worsen. Study Dhufera, et al. [24] stated that Trauma care due to traffic accidents causes catastrophic health expenditure for 67% of households and impoverishes 24%. The study Xiong, et al. [25] stated that nosocomial infections significantly increase hospitalization costs, economic burden, and length of stay in surgical patients. The study Takaku and Yokoyama [26] revealed that the monthly loss per bed increased by about JPY 600,000 due to treating COVID-19 patients. The study Maher, et al. [27] states Patient safety strategies include education, safety culture, managerial support, safe environment, regulation, and regular monitoring.

The study Nugraheni and Kirana [28] SWOT analysis shows that RS DKT Kediri is in Quadrant II, facing major challenges but has significant strengths. The study Yuliasari, et al. [19] revealed that the Pharmacy Installation of Hospital X is in quadrant two, requiring a diversification strategy for development to face greater threats.

Existing findings have not contributed to the priority of high initial investment costs for new technology and staff training, which can be burdensome for hospitals with limited resources. In addition, reliance on technology also increases the risk of system failures that can disrupt operations. In terms of cybersecurity, while important, maintaining sophisticated systems requires additional resources and

specialized expertise, which can be burdensome for small hospitals. Imperfect automation implementations can lead to technical glitches or misalignments in workflows. Collaboration with insurance can also affect the flexibility of hospitals in setting prices, while digital marketing that is too dependent on a particular platform poses risks if algorithms change or the effectiveness of strategies decreases.

This study will offer how hospital strategies with priorities that need to be prioritized in advanced technology investments, staff training, and cybersecurity are essential to keep hospital services relevant and safe. Price transparency builds trust, while automation and collaboration with insurance and digital marketing improve operational efficiency and expand patient reach with minimal promotional costs. To improve the effectiveness of development strategies, hospitals in Jakarta need to immediately implement QSPM (Quantitative Strategic Planning Matrix). QSPM will help in ranking the results of the SWOT analysis by providing a quantitative assessment of strengths, weaknesses, opportunities, and threats. This approach is very important to ensure that the chosen strategy is truly optimal and able to face challenges and take advantage of opportunities better. With SWOT-QSPM, hospitals can develop a more focused strategic plan that has a positive impact on long-term success.

This study aims to analyze and formulate an effective integrated marketing strategy to improve financial efficiency in hospitals. The main focus of this study is to identify ways in which hospitals can optimize collaboration with insurance companies, utilize digital technology, and implement transparent pricing policies to attract more patients and reduce promotional costs, while maintaining service quality and patient data security. strategies involving collaboration with insurance companies and digital marketing allow hospitals to reach a wider target market with lower promotional costs. This is in line with the goal of improving financial efficiency, where hospitals can reduce operational expenses related to traditional promotions while increasing revenue through greater patient volume. The use of appropriate digital marketing can optimize patient reach, while transparent pricing strategies increase patient trust, thereby strengthening the hospital's position in market competition.

This research contributes to the development of an integrated marketing strategy that combines collaboration with insurance companies and the use of digital technology to improve financial efficiency in hospitals. By optimizing this collaboration, hospitals can attract more patients with lower promotional costs. On the other hand, efficient digital marketing will help reduce dependence on platforms that are vulnerable to algorithm changes, so that hospitals can still reach a wider audience. This research also provides guidance for hospitals in designing more cost-effective marketing strategies, improving financial performance without sacrificing service quality.

The development of an AI-powered, voice-controlled academic assistant has the potential to radically streamline these processes [29] empowering researchers to focus on the core aspects of their work. By leveraging natural language processing, machine learning, and knowledge representation systems, this assistant would automate the tasks of literature search, citation management, and bibliography generation. Researchers could interact with the assistant through simple voice commands, thereby minimizing time spent on these tedious tasks.

2. Methodology

2.1. Design

This study is a descriptive study that aims to analyze and understand the actual conditions of financial efficiency in hospitals through the use of two strategic analysis tools, namely SWOT (Strengths, Weaknesses, Opportunities, Threats) and QSPM (Quantitative Strategic Planning Matrix) [27, 30, 31]. Descriptive study was chosen because this method allows researchers to describe in detail the phenomena that exist in a specific context, in this case the financial efficiency of hospitals. With this approach, research can provide a clear picture of current conditions, identify influencing factors, and describe the relationship between existing variables[22, 32]. SWOT Analysis is used to identify strengths, weaknesses, opportunities, and threats related to the hospital's financial efficiency [26]. The scientific reason for using SWOT is because this method provides a systematic framework for

evaluating internal and external factors that affect hospital performance [24, 33]. Thus, SWOT helps in identifying strategic areas that can be improved or optimized to support financial efficiency. After SWOT Analysis, QSPM is used to develop and prioritize the most effective strategies based on the results of the SWOT analysis [34, 35]. QSPM allows researchers to quantify the relative attractiveness of each identified strategy, thereby allowing the selection of the most appropriate strategy to be implemented [27, 36]. The decision to use QSPM is because this method provides an objective approach to prioritize strategies based on calculated weights and scores, which ensures that the strategies selected are those that best support the hospital's financial efficiency goals. By combining SWOT and QSPM, this research can provide strong, data-based strategic recommendations that not only describe the current condition but also provide clear guidance for future decision making.

2.2. Research Informants

The selection of three main stakeholders, namely financial management, service unit heads, and marketing teams, as informants in this study was based on logical considerations related to their strategic roles in hospital operations that affect financial efficiency.

- a. Financial managers have a deep understanding of cash flow, budget allocation, and cost control in hospitals [37, 38]. They also have data and insights on how strategic decisions across units impact overall financial performance. Therefore, they are the primary source of information for understanding how marketing elements impact financial efficiency [17].
- b. The head of the service unit is responsible for the daily operations and quality of services provided to patients [32]. They have direct insight into how products (medical services) are provided and how operational processes are run efficiently. Their participation is essential to identifying whether current service practices support or hinder the hospital's financial efficiency [39-41].
- c. The marketing division plays a key role in attracting patients and promoting hospital services [33]. They have knowledge of the marketing strategies used and their impact on the hospital's image and patient volume. Information from the marketing team helps in understanding the cost-effectiveness of promotional strategies and how this contributes to financial efficiency.

2.3. Operational Research Variables

The operational variables in this study use the 7P parameters, covering:

- a. Product, this section will measure stakeholder perceptions of the quality and diversity of products/services offered by the hospital, as well as their relationship to hospital operating costs and revenues. Questions in this section include assessing the relevance of products to patient needs and their impact on revenues [42].
- b. Price, this section evaluates the hospital's pricing strategy, including competitive prices and the ability of these prices to cover costs and support the hospital's financial sustainability [43]. Respondents will be asked to assess whether the price set is balanced with the quality of service provided [44].
- c. Promotion, this section focuses on the effectiveness of promotions carried out by the hospital, both through traditional and digital media. Questions will evaluate the impact of promotions on increasing the number of patients and whether the promotion is in accordance with the budget allocation [45].
- d. Place, this section evaluates the physical location and ease of access to the hospital and its impact on the number of patient visits. Respondents will assess how location and facilities affect the operational efficiency of the hospital [46].
- e. People, this section will assess the skills and performance of hospital staff, and their impact on patient satisfaction and service efficiency. This question will also look at the extent to which hospital HR can assist in efficient cost management [47].

- f. Process, this section focuses on the efficiency of operational processes in the hospital, including patient service flows, use of technology, and how these processes contribute to financial efficiency [48, 49]. Respondents will be asked to rate whether existing processes support cost savings without compromising service quality [50].
- g. Physical Evidence, this section assesses the physical aspects of hospital facilities, such as cleanliness, comfort, and completeness of medical equipment. Questions will evaluate how this physical evidence affects the hospital's image and appeal to patients, as well as its relationship to the efficiency of hospital budget use [51].

2.4. Research Instrument

This research instrument is designed to evaluate the financial efficiency of hospitals using seven marketing parameters, namely Product, Price, Promotion, Place, People, Process, and Physical Evidence. This instrument will be implemented in the form of a questionnaire that will be filled out by three main stakeholders in the hospital, namely financial management, head of service units, and marketing team. Data collection will be carried out through direct observation of the three selected stakeholders. They will be given time to fill out the questionnaire in detail, based on their experiences and perceptions in hospital operations. The results of this questionnaire will be used to identify areas where the hospital can improve its financial efficiency through optimization of marketing strategies. The data collected will be analyzed to find the relationship between the seven marketing parameters and hospital financial efficiency, which can later be used for recommendations for improvements in improving integrated marketing strategies in hospitals in the Central Jakarta area, Indonesia.

2.5. Research Procedures

The process of collecting SWOT factors (strengths, weaknesses, opportunities and threats) is carried out through observation and interviews to identify strengths, weaknesses, opportunities and threats for the Hospital [52, 53]. Each SWOT factor is then given a weight and a rating, where the total weight of strengths and weaknesses should equal 1.00, and the total weight of opportunities and threats should equal 1.00 [19, 54, 55]. Ratings are given with a value of 1 for not important, 2 for least important, 3 for important, and 4 for very important on the strength and opportunity factors [34, 56]. As for weaknesses and threats, the value used is 1 for not important, 2 for less important, 3 for important, and 4 for very important [28, 57]. These values are then multiplied by the weights to produce a total attractiveness score. For example, if strength A has a weight of 0.25 and a rating of 4, then its attractiveness score is 1.00 (0.25×4) [35]. Alternative strategies are determined based on the highest attractiveness value, for example a strategy with an attractiveness value of 3.20 will be preferred over a strategy with a value of 2.75. QSPM (Quantitative Strategic Planning Matrix) strategy decisions are taken from the highest to the lowest total attractiveness value [27, 58]. The results of this analysis are interpreted to achieve the research objectives and provide recommendations for the hospital industry in the Jakarta area, Indonesia [11, 59].

3. Results and Discussion

3.1. Results

Observation and Interview Results Regarding SWOT in Hospitals in the Jakarta Area

The results of observations and interviews regarding SWOT analysis in hospitals in the Jakarta area identified elements of strengths, weaknesses, opportunities, and threats along with statements and codes which are presented in Table 1.

Table 1.
Observation Results.

Element	Strength		Weakness		Opportunity		Threat	
	Statement	Code	Statement	Code	Statement	Code	Statement	Code
Products	Hospital medical services are periodically evaluated to ensure high quality and that patient needs are met.	STH1	Periodic evaluation of medical services can be time-consuming and costly, reducing short-term efficiency.	WKS1	Diversifying medical services can attract more patients and increase hospital revenue.	OPT1	Competition with other hospitals offering similar services can reduce market share and revenue.	TH1
	Technology-based healthcare innovations increase efficiency and accelerate the diagnosis and treatment process.	STH2	The use of technology in healthcare requires large initial investments and training for medical staff.	WKS2	The development of telemedicine allows for wider patient reach with lower operational costs.	OPT2	Rapid changes in healthcare technology can make existing services obsolete if they do not adapt quickly.	TH2
Price	The hospital offers competitive care packages for various income levels, maintaining a balance between costs and services.	STH3	Overly competitive care packages can reduce profit margins, especially if they are not balanced with operational efficiency.	WKS3	Dynamic pricing based on market demand can increase profits during peak demand periods.	OPT3	Rising operating costs, such as medical supplies and labor, may force hospitals to raise prices for services.	TH3
	A transparent and easily understood pricing policy for patients increases customer trust and satisfaction.	STH4	Transparent pricing policies can be difficult to implement because of the complexity of healthcare costs.	WKS4	Implementing a microinsurance system or subsidy program can expand access to health services for a larger market segment.	OPT4	Pressure to keep service prices competitive can reduce profit margins and affect service quality.	TH4
Promotion	Digital health promotion programs enable hospitals to reach more patients at low marketing costs.	STH5	Digital promotions may not reach all patient segments, especially those with less access to technology.	WKS5	Social media-based health campaigns can expand public awareness at relatively low promotional costs.	OPT5	Reliance on digital promotion risks facing technological disruption or changes in digital platform algorithms.	TH5
	Collaboration with insurance companies to promote hospital services increases patient flow with minimal promotional costs.	STH6	Collaboration with insurance can limit hospitals in providing non-standard services that certain patients need.	WKS6	Collaboration with technology companies can expand promotional networks through digital health applications.	OPT6	Increasing competition in digital marketing can increase promotional costs and reduce campaign effectiveness.	TH6
Place	The strategic location of the hospital facilitates access for patients, increasing the number of visits and operational efficiency.	STH7	Strategic locations can have higher operating costs due to expensive land rental or purchase prices.	WKS7	The use of satellite clinics or mobile health services can reach wider areas without major investments in infrastructure.	OPT7	Infrastructure limitations in certain areas can limit the expansion of hospital services and reduce accessibility.	TH7

	The online registration system allows patients to access services without having to come in person, saving time and costs.	STH8	Online registration systems are prone to technical issues that can hinder service and reduce patient satisfaction.	WKS8	Developing health services in rural or remote areas can improve the image of hospitals as inclusive service providers.	OPT8	Natural disasters or environmental issues can impact hospital operations, especially if the strategic location is in a disaster-prone area.	TH8
People	Regular training for medical personnel and staff ensures efficient and high-quality services.	STH9	Regular training for medical personnel requires costs and time, which can disrupt the daily operations of the hospital.	WKS9	Improving technology-based training programs can improve staff skills, optimize performance and patient satisfaction.	OPT9	A shortage of skilled medical personnel or high turnover rates can disrupt service and operational efficiency.	TH9
	The hospital management team is experienced in financial management and is able to optimize the use of resources.	STH10	Reliance on experienced management without regeneration can lead to stagnation and lack of innovation.	WKS10	Providing incentives to employees for innovation can increase efficiency and cost savings across a variety of hospital processes.	OPT10	Competition in recruiting experts from other hospitals can increase labor costs and reduce profits.	TH10
Process	The use of automation systems in patient registration and management reduces waiting times and increases efficiency.	STH11	Automating the registration process can be expensive to implement and requires complex technical customization.	WKS11	Implementation of an AI-based management system can increase the speed and accuracy of decision making in hospital operations.	OPT11	Failure to implement automation systems or new technology can slow down operations and increase costs.	TH11
	An integrated and efficient procurement process reduces hospital operational costs.	STH12	An efficient procurement process can be hampered by regulations and bureaucracy that slow down implementation.	WKS12	Utilizing Big Data for predictive analysis can increase efficiency in procurement of goods and resource management.	OPT12	Reliance on digital systems is vulnerable to cyber attacks that can disrupt operations and patient data security.	TH12
Physical Evidence	Modern and clean hospital facilities create a comfortable environment for patients, increasing trust and repeat visits.	STH13	Modern facilities require large investments in infrastructure maintenance and renewal which can reduce financial efficiency.	WKS13	Using environmentally friendly design in hospital facilities can reduce long-term energy and operational costs.	OPT13	Inadequate maintenance of physical facilities can lower the reputation of the hospital and reduce the number of patient visits.	TH13
	Supporting technologies, such as electronic medical record systems, improve the accuracy of patient data and the efficiency of medical services.	STH14	Supporting technologies such as electronic medical records are vulnerable to cyber attacks and require expensive security systems.	WKS14	Utilizing IoT-based technology for medical equipment can maximize the effectiveness and efficiency of health services.	OPT14	Failure to comply with safety standards or regulations may result in legal sanctions or loss of operating license.	TH14

3.2. Hospital Analysis in Jakarta Area

Analysis of hospitals in the Jakarta area, based on internal company data and using the Marketing Mix (7P), shows that the elements used are in Table 2.

Table 2.
Internal Company.

Internal Company					
No	Marketing Mix (7P)	Strength Code	Weight (Weight)	Mean Rating	Score (WxR)
1	Products	STH1	0.018	1.3	0.024
2		STH2	0.027	2.0	0.054
3	Price	STH3	0.041	3.0	0.122
4		STH4	0.036	2.7	0.096
5	Promotion	STH5	0.045	3.3	0.150
6		STH6	0.018	1.3	0.024
7	Place	STH7	0.036	2.7	0.096
8		STH8	0.045	3.3	0.150
9	People	STH9	0.018	1.3	0.024
10		STH10	0.023	1.7	0.038
11	Process	STH11	0.041	3.0	0.122
12		STH12	0.023	1.7	0.038
13	Physical Evidence	STH13	0.023	1.7	0.038
14		STH14	0.018	1.3	0.024
		Total (S)			1.00
No	Marketing Mix (7P)	Weakness Code	Weight (Weight)	Mean Rating	Score (WxR)
1	Products	WKS1	0.036	2.7	0.096
2		WKS2	0.036	2.7	0.096
3	Price	WKS3	0.036	2.7	0.096
4		WKS4	0.032	2.3	0.074
5	Promotion	WKS5	0.036	2.7	0.096
6		WKS6	0.036	2.7	0.096
7	Place	WKS7	0.045	3.3	0.150
8		WKS8	0.059	4.3	0.254
9	People	WKS9	0.041	3.0	0.122
10		WKS10	0.063	4.7	0.294
11	Process	WKS11	0.054	4.0	0.216
12		WKS12	0.036	2.7	0.096
13	Physical Evidence	WKS13	0.059	4.3	0.254
14		WKS14	0.023	1.7	0.038
		Total (W)		74.0	1.27
Total Weight of Internal Factors			1.00		
SUM OF S + W VALUES					2.27

Analysis of hospitals in the Jakarta area, based on internal companies and using the Marketing Mix (7P), shows that the elements in the external company are in Table 3.

Table 3.
External Company.

External Company					
No	Marketing Mix (7P)	Opportunity Code	Weight (Weight)	Mean Rating	Score (WxR)
1	Products	OPT1	0.017	1.7	0.03
2		OPT2	0.041	4.0	0.16
3	Price	OPT3	0.010	1.0	0.01
4		OPT4	0.031	3.0	0.09
5	Promotion	OPT5	0.031	3.0	0.09
6		OPT6	0.024	2.3	0.06
7	Place	OPT7	0.024	2.3	0.06
8		OPT8	0.024	2.3	0.06
9	People	OPT9	0.024	2.3	0.06
10		OPT10	0.038	3.7	0.14
11	Process	OPT11	0.014	1.3	0.02
12		OPT12	0.034	3.3	0.11
13	Physical Evidence	OPT13	0.014	1.3	0.02
14		OPT14	0.051	5.0	0.26
		Total (O)			0.60
No	Marketing Mix (7P)	Threat Code	Weight	Mean Rating	Score (WxR)
1	Products	TH1	0.048	4.7	0.224
2		TH2	0.034	3.3	0.114
3	Price	TH3	0.048	4.7	0.224
4		TH4	0.048	4.7	0.224
5	Promotion	TH5	0.048	4.7	0.224
6		TH6	0.045	4.3	0.193
7	Place	TH7	0.045	4.3	0.193
8		TH8	0.048	4.7	0.224
9	People	TH9	0.041	4.0	0.164
10		TH10	0.038	3.7	0.138
11	Process	TH11	0.041	4.0	0.164
12		TH12	0.041	4.0	0.164
13	Physical Evidence	TH13	0.048	4.7	0.224
14		TH14	0.051	5.0	0.257
		Total (T)		97.3	1.34
Total Internal Factor Weight			1.00		
TOTAL VALUE O + T					1.94

Table 4.
Internal - External Matrix.

Internal - External Matrix			IFAS Matrix Score		
			2.27		
			Strong (3.0 - 4.0)	Average (2.0 - 2.99)	Weak (1-1.99)
EFAS Matrix Score	1.94	Strong (3.0 - 4.0)	I: Growth and Build	II: Growth and Build	III: Hold and Maintain
		Average (2.0 - 2.99)	IV: Growth and Build	V: Hold and Maintain	VI: Harvest or Divest
		Weak (1-1.99)	VII: Hold and Maintain	VIII: Harvest or Divestment	IX: Harvest or Divestment

Hospital organizations face a situation where strength is relatively low and external threats are quite high, so the right strategy is to minimize threats by increasing strength (Table 4). Hospitals in the Jakarta area that are in the "Harvest or Divestiture" quadrant face conditions where internal strength is relatively low, while external threats are quite high, such as increasing competition or stricter regulations. To respond to this situation, hospitals need to maximize short-term revenue by focusing on optimizing existing assets and products without making additional large investments. Reducing operating costs and capital expenditures must be done so that profits remain maximized. In addition, reducing investment in less profitable areas while maintaining existing services will help hospitals earn

revenue as long as possible. Hospitals must also improve efficiency in all processes to maintain profitability. If there are units or services that are no longer profitable, divestiture steps in the form of terminating or selling the unit must be considered. Financial and human resources also need to be diverted to more profitable sectors, while conducting a thorough evaluation of the service portfolio to focus on areas with better growth potential or stability. This strategy overall aims to reduce losses, maintain short-term profitability, and ensure that energy and resources are focused on more promising opportunities.

Table 1.
SWOT Matrix.

	Strength		Weakness	
Element	Statement	Code	Statement	Code
Products	Hospital medical services are periodically evaluated to ensure high quality and that patient needs are met.	STH1	Periodic evaluation of medical services can be time-consuming and costly, reducing short-term efficiency.	WKS1
	Technology-based healthcare innovations increase efficiency and accelerate the diagnosis and treatment process.	STH2	The use of technology in healthcare requires large initial investments and training for medical staff.	WKS2
Price	The hospital offers competitive care packages for various income levels, maintaining a balance between costs and services.	STH3	Overly competitive care packages can reduce profit margins, especially if they are not balanced with operational efficiency.	WKS3
	A transparent and easily understood pricing policy for patients increases customer trust and satisfaction.	STH4	Transparent pricing policies can be difficult to implement because of the complexity of healthcare costs.	WKS4
Promotion	Digital health promotion programs enable hospitals to reach more patients at low marketing costs.	STH5	Digital promotions may not reach all patient segments, especially those with less access to technology.	WKS5
	Collaboration with insurance companies to promote hospital services increases patient flow with minimal promotional costs.	STH6	Collaboration with insurance can limit hospitals in providing non-standard services that certain patients need.	WKS6
Place	The strategic location of the hospital facilitates access for patients, increasing the number of visits and operational efficiency.	STH7	Strategic locations can have higher operating costs due to expensive land rental or purchase prices.	WKS7

		The online registration system allows patients to access services without having to come in person, saving time and costs.	STH8	Online registration systems are prone to technical issues that can hinder service and reduce patient satisfaction.	WKS8
	People	Regular training for medical personnel and staff ensures efficient and high-quality services.	STH9	Regular training for medical personnel requires costs and time, which can disrupt the daily operations of the hospital.	WKS9
		The hospital management team is experienced in financial management and is able to optimize the use of resources.	STH10	Reliance on experienced management without regeneration can lead to stagnation and lack of innovation.	WKS10
	Process	The use of automation systems in patient registration and management reduces waiting times and increases efficiency.	STH11	Automating the registration process can be expensive to implement and requires complex technical customization.	WKS11
		An integrated and efficient procurement process reduces hospital operational costs.	STH12	An efficient procurement process can be hampered by regulations and bureaucracy that slow down implementation.	WKS12
	Physical Evidence	Modern and clean hospital facilities create a comfortable environment for patients, increasing trust and repeat visits.	STH13	Modern facilities require large investments in infrastructure maintenance and renewal which can reduce financial efficiency.	WKS13
		Supporting technologies, such as electronic medical record systems, improve the accuracy of patient data and the efficiency of medical services.	STH14	Supporting technologies such as electronic medical records are vulnerable to cyber attacks and require expensive security systems.	WKS14
Element	Opportunity Statement	Code			

Products	Diversifying medical services can attract more patients and increase hospital revenue.	OPT1	Technology-based healthcare service innovation with the development of telemedicine and the use of IoT-based technology for medical equipment to expand patient reach, increase diagnostic efficiency, and maximize the effectiveness of healthcare services (STH2, OPT2 and OPT14)	Leveraging IoT and Big Data-based technologies to optimize service automation and operational efficiency, despite requiring large initial investments (WKS2, OPT14, OPT12)
	The development of telemedicine allows for wider patient reach with lower operational costs.	OPT2	Hospitals can offer competitive treatment packages, while diversifying medical services and implementing microinsurance or subsidy systems to expand access to health services for different income levels and market segments (STH3, OPT1, and OPT4)	Developing telemedicine to expand patient reach and reduce operational costs, while continuing to invest in training and use of new technologies (WKS9, OPT2, OPT9)
Price	Dynamic pricing based on market demand can increase profits during peak demand periods.	OPT3	The use of online registration systems with the use of satellite clinics or mobile health services, as well as the implementation of AI-based management systems, to improve patient access, operational efficiency, and fast and accurate decision making (STH8, OPT7, OPT11)	Using satellite clinics or mobile health services to reach remote areas without major investment in infrastructure, but still considering high operational costs in strategic locations (WKS7, OPT7, OPT8)
	Implementing a microinsurance system or subsidy program can expand access to health services for a larger market segment.	OPT4	Integrated and efficient procurement processes can be enhanced by leveraging Big Data for predictive analytics and incentivizing employees for innovation, which will increase efficiency, reduce operational costs, and motivate innovation in hospital processes (STH12,	Integrating AI-based management systems to improve data security and service efficiency, despite the risk of cyber attacks on technologies such as electronic medical records (WKS14, OPT11, OPT14)

			OPT12, and OPT10)			
Promotion	Social media-based health campaigns can expand public awareness at relatively low promotional costs.	OPT5	Digital health promotion programs can be combined with social media-based health campaigns and the development of health services in rural or remote areas to increase public awareness, reach more patients, and strengthen the hospital's image as an inclusive service provider (STH5, OPT5, and OPT8)		Enhancing technology-based training programs for medical staff, while providing incentives for innovation, to address the cost and time challenges involved in periodic training (WKS9, OPT9, OPT10)	
	Collaboration with technology companies can expand promotional networks through digital health applications.	OPT6				
Place	The use of satellite clinics or mobile health services can reach wider areas without major investments in infrastructure.	OPT7				
	Developing health services in rural or remote areas can improve the image of hospitals as inclusive service providers.	OPT8				
People	Improving technology-based training programs can improve staff skills, optimize performance and patient satisfaction.	OPT9				
	Providing incentives to employees for innovation can increase efficiency and cost savings across a variety of hospital processes.	OPT10				
Process	Implementation of an AI-based management system can increase the speed and accuracy of decision making in hospital operations.	OPT11				
	Utilizing Big Data for predictive analysis can increase efficiency in procurement of goods and resource management.	OPT12				
Physical Evidence	Using environmentally friendly design in hospital facilities can reduce long-term energy and operational costs.	OPT13				
	Utilizing IoT-based technology for medical equipment can maximize the effectiveness and efficiency of health services.	OPT14				
	Threat					

	Statement	Code			
Products	Competition with other hospitals offering similar services can reduce market share and revenue.	TH1	Hospitals need to invest in technological innovation and accelerate adaptation to changes in healthcare technology to keep services from becoming outdated. Staff training should also be improved to ensure they can operate the latest technology (STH2, TH2).		Technology Investment Optimization Hospitals can implement a phased investment strategy in health technology. Starting with the technology that has the greatest impact on operations, and ensuring efficient periodic training for medical personnel. In addition, the use of technology must also be followed by improving data security systems to prevent cyber attacks (WKS14, TH12, WKS9, WKS2, TH2)
	Rapid changes in healthcare technology can make existing services obsolete if they do not adapt quickly.	TH2	Hospitals must maintain a balance between cost and quality of service with transparent pricing policies. This will increase patient confidence while maintaining profit margins in the face of rising operating costs (STH3, STH4, TH3, TH4).		Service Adjustment and Operational Efficiency To face price and service competition, hospitals can develop competitive service packages while still ensuring operational efficiency, by integrating automation in several registration and service processes. In addition, the procurement process also needs to be optimized to run more efficiently (WKS12, TH1, TH4, WKS3, WKS11).
Price	Rising operating costs, such as medical supplies and labor, may force hospitals to raise prices for services.	TH3	By implementing electronic medical record systems and automation, hospitals must also focus on cybersecurity to protect patient data from cyber attacks that could potentially disrupt operations (STH14, TH12).		Operational Risk Management and Location Hospitals need to consider the risks of expensive strategic locations by optimizing operational cost management. In addition, it is also necessary to consider the impact of the environment or natural disasters on hospital operations and prepare contingency plans (TH8, WKS7).
	Pressure to keep service prices competitive can reduce profit margins and affect service quality.	TH4	The use of automation systems in registration, patient management, and procurement of goods should be optimized to reduce waiting times and increase efficiency. However, these systems must be implemented well to avoid operational disruptions		Regeneration and Innovation in Management To avoid stagnation due to dependence on existing management, hospitals must implement a strategy of management regeneration and continuous innovation, by ensuring the sustainability of innovation at every level. This is also related to improving the capabilities of medical personnel and staff through regular training (WKS9,

			(STH11, TH11).		WKS10, TH9).	
Promotion	Reliance on digital promotion risks facing technological disruption or changes in digital platform algorithms.	TH5	Hospitals need to increase collaboration with insurance companies to attract more patients with minimal promotional costs, while developing efficient digital marketing strategies so as not to rely too much on platforms that may face algorithm changes (STH5, STH6, TH5, TH6).		Optimizing Digital Marketing and Promotion Hospitals need to diversify their marketing strategies to reach a wider patient segment, not just relying on digital promotions. This also needs to be done by monitoring the costs and effectiveness of marketing campaigns, to avoid increasing ineffective promotional costs (TH6, WKS5, TH5).	
	Increasing competition in digital marketing can increase promotional costs and reduce campaign effectiveness.	TH6				
Place	Infrastructure limitations in certain areas can limit the expansion of hospital services and reduce accessibility.	TH7				
	Natural disasters or environmental issues can impact hospital operations, especially if the strategic location is in a disaster-prone area.	TH8				
People	A shortage of skilled medical personnel or high turnover rates can disrupt service and operational efficiency.	TH9				
	Competition in recruiting experts from other hospitals can increase labor costs and reduce profits.	TH10				
Process	Failure to implement automation systems or new technology can slow down operations and increase costs.	TH11				
	Reliance on digital systems is vulnerable to cyber attacks that can disrupt operations and patient data security.	TH12				
Physical Evidence	Inadequate maintenance of physical facilities can lower the reputation of the hospital and	TH13				

	reduce the number of patient visits.					
	Failure to comply with safety standards or regulations may result in legal sanctions or loss of operating license.	TH14				

Table 6.
QSPM Assessment.

Internal Company				Strategy I		Strategy II		Strategy III		Strategy IV		Strategy V	
N o	Marketing Mix (7P)	Strength Code	Weight (Weight)	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value
1	Products	STH1	0.015	1.0	0.015	2.0	0.030	2.0	0.030	2.0	0.030	2.0	0.030
2		STH2	0.030	2.0	0.059	2.0	0.059	2.0	0.059	2.0	0.059	2.0	0.059
3	Price	STH3	0.045	3.0	0.134	3.0	0.134	1.7	0.074	1.7	0.074	2.3	0.104
4		STH4	0.040	2.7	0.106	3.7	0.145	4.3	0.172	4.3	0.172	4.3	0.172
5	Promotion	STH5	0.050	3.3	0.165	3.3	0.165	3.7	0.182	3.7	0.182	2.7	0.132
6		STH6	0.020	1.3	0.026	1.3	0.026	2.3	0.046	2.3	0.046	3.0	0.059
7	Place	STH7	0.025	1.7	0.041	2.3	0.058	2.3	0.058	2.3	0.058	2.3	0.058
8		STH8	0.050	3.3	0.165	3.3	0.165	3.3	0.165	3.3	0.165	3.3	0.165
9	People	STH9	0.020	1.3	0.026	1.3	0.026	1.3	0.026	1.3	0.026	1.3	0.026
10		STH10	0.025	1.7	0.041	1.7	0.041	1.7	0.041	1.7	0.041	1.7	0.041
11	Process	STH11	0.045	3.0	0.134	2.3	0.104	2.3	0.104	2.3	0.104	2.3	0.104
12		STH12	0.025	1.7	0.041	1.7	0.041	1.7	0.041	1.7	0.041	1.7	0.041
13	Physical Evidence	STH13	0.025	1.7	0.041	1.7	0.041	1.7	0.041	1.7	0.041	1.7	0.041
14		STH14	0.020	1.3	0.026	1.3	0.026	1.3	0.026	1.3	0.026	1.3	0.026
		Total (S)			1.02		1.06		1.07		1.07		1.06
N o	Marketing Mix (7P)	Weakness Code	Weight (Weight)	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value
1	Products	WKS1	0.040	2.7	0.106	2.7	0.106	2.7	0.106	2.7	0.106	2.7	0.106
2		WKS2	0.040	2.7	0.106	2.7	0.106	2.7	0.106	2.7	0.106	2.7	0.106
3	Price	WKS3	0.040	2.7	0.106	2.7	0.106	3.7	0.145	3.7	0.145	3.3	0.132
4		WKS4	0.050	3.3	0.165	3.3	0.165	2.3	0.116	2.3	0.116	3.3	0.165
5	Promotion	WKS5	0.040	2.7	0.106	2.7	0.106	2.7	0.106	2.7	0.106	3.0	0.119

6		WKS6	0.025	1.7	0.041	2.0	0.050	2.0	0.050	2.0	0.050	2.0	0.050
7	Place	WKS7	0.035	2.3	0.081	2.3	0.081	3.3	0.116	3.3	0.116	3.0	0.104
8		WKS8	0.045	3.0	0.134	2.0	0.089	2.3	0.104	2.3	0.104	2.7	0.119
9	People	WKS9	0.025	1.7	0.041	1.7	0.041	1.7	0.041	1.7	0.041	1.7	0.041
10		WKS10	0.050	3.3	0.165	3.3	0.165	3.3	0.165	3.3	0.165	3.3	0.165
11	Process	WKS11	0.059	4.0	0.238	3.7	0.218	3.7	0.218	3.7	0.218	3.7	0.218
12		WKS12	0.035	2.3	0.081	2.3	0.081	2.3	0.081	2.3	0.081	2.3	0.081
13	Physical Evidence	WKS13	0.064	4.3	0.279	4.3	0.279	4.3	0.279	4.3	0.279	4.3	0.279
14		WKS14	0.025	1.7	0.041	1.7	0.041	1.7	0.041	1.7	0.041	1.7	0.041
		Total (W)		67.3	0.98	68.3	0.91	70.3	0.93	70.3	0.93	71.7	0.94
Total Weight of Internal Factors			1.00										
SUM OF S + W VALUES					2.00		1.98		2.00		2.00		2.00
External Company													
N o	Marketing Mix (7P)	Opportunity Code	Weight (Weight)	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value
1	Products	OPT1	0.020	1.7	0.03	1.7	0.033	1.7	0.033	1.7	0.033	2.3	0.046
2		OPT2	0.047	4.0	0.19	3.7	0.174	3.3	0.158	3.0	0.142	3.3	0.158
3	Price	OPT3	0.012	1.0	0.01	1.0	0.012	2.0	0.024	1.3	0.016	3.3	0.040
4		OPT4	0.036	3.0	0.11	3.7	0.130	3.0	0.107	3.0	0.107	2.0	0.071
5	Promotion	OPT5	0.036	3.0	0.11	4.0	0.142	3.0	0.107	3.0	0.107	1.7	0.059
6		OPT6	0.028	2.3	0.06	2.3	0.065	2.3	0.065	2.7	0.074	2.0	0.055
7	Place	OPT7	0.016	1.3	0.02	1.3	0.021	2.0	0.032	2.0	0.032	3.0	0.047
8		OPT8	0.028	2.3	0.06	2.3	0.065	2.3	0.065	2.3	0.065	2.3	0.065
9	People	OPT9	0.028	2.3	0.06	2.3	0.065	2.3	0.065	2.3	0.065	2.3	0.065
10		OPT10	0.047	4.0	0.19	4.0	0.190	4.0	0.190	4.0	0.190	4.0	0.190
11	Process	OPT11	0.016	1.3	0.02	1.3	0.021	1.3	0.021	1.3	0.021	1.3	0.021
12		OPT12	0.024	2.0	0.05	2.0	0.047	2.0	0.047	2.0	0.047	2.0	0.047
13	Physical Evidence	OPT13	0.016	1.3	0.02	1.3	0.021	1.3	0.021	1.3	0.021	1.3	0.021

14		OPT14	0.043	3.7	0.16	2.3	0.101	2.3	0.101	2.3	0.101	2.3	0.101
		Total (O)			0.50		0.45		0.45		0.45		0.45
No	Marketing Mix (7P)	Threat Code	Weight	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value	Mean Attraction	Total Attraction Value
1	Products	TH1	0.028	2.3	0.065	3.3	0.092	3.3	0.092	3.3	0.092	3.0	0.083
2		TH2	0.040	3.3	0.132	3.3	0.132	3.3	0.132	4.3	0.171	3.3	0.132
3	Price	TH3	0.055	4.7	0.258	4.7	0.258	4.7	0.258	4.7	0.258	3.7	0.203
4		TH4	0.055	4.7	0.258	4.7	0.258	4.7	0.258	4.7	0.258	3.0	0.166
5	Promotion	TH5	0.055	4.7	0.258	4.7	0.258	3.3	0.184	3.0	0.166	1.3	0.074
6		TH6	0.051	4.3	0.223	4.3	0.223	4.0	0.206	4.0	0.206	3.0	0.154
7	Place	TH7	0.040	3.3	0.132	3.3	0.132	2.3	0.092	2.0	0.079	3.3	0.132
8		TH8	0.055	4.7	0.258	4.7	0.258	4.7	0.258	4.7	0.258	4.7	0.258
9	People	TH9	0.032	2.7	0.084	2.7	0.084	2.7	0.084	2.7	0.084	2.7	0.084
10		TH10	0.028	2.3	0.065	2.3	0.065	2.3	0.065	2.3	0.065	2.3	0.065
11	Process	TH11	0.032	2.7	0.084	2.7	0.084	2.7	0.084	2.7	0.084	2.7	0.084
12		TH12	0.032	2.7	0.084	2.7	0.084	2.7	0.084	2.7	0.084	2.7	0.084
13	Physical Evidence	TH13	0.055	4.7	0.258	4.7	0.258	4.7	0.258	4.7	0.258	4.7	0.258
14		TH14	0.047	4.0	0.190	2.7	0.126	2.7	0.126	2.7	0.126	2.7	0.126
		Total (T)		84.3	1.02	84.0	0.96	81.0	0.96	80.7	0.96	76.3	0.96
Total Internal Factor Weight			1.00										
TOTAL VALUE O + T					1.53		1.41		1.41		1.41		1.41
Total Attraction Value					3.53		3.38		3.40		3.40		3.41
Ranking					1		5		4		3		2

3.3. *SWOT Matrix*

The SWOT matrix is a strategic analysis tool that identifies an organization's strengths, weaknesses, opportunities, and threats. In this matrix, internal strengths and weaknesses are identified along with external opportunities and threats. This assessment helps organizations formulate strategies that capitalize on strengths and opportunities, while addressing weaknesses and threats.

3.4. *QSPM Assessment*

The QSPM (Quantitative Strategic Planning Matrix) assessment for companies includes an evaluation of five strategies based on the Marketing Mix (7P) analysis. Table 6, the assessment includes the strength code, weight, and average attractiveness of each strategy, as well as the total attractiveness value for each strategy. This evaluation aims to determine the priority of the strategy by considering the company's internal strengths and strategic attractiveness.

4. Discussion

4.1. *Selected Strategy Strength – Threat (SO) Quadrant*

Hospitals need to invest in technological innovation and accelerate adaptation to changes in health technology so that services do not become outdated. Staff training should also be improved to ensure they can operate the latest technology (STH2, TH2) Strategy I.

Technological innovation in hospitals is a crucial element in maintaining the relevance and quality of healthcare services in the modern era. With the rapid development of technology, hospitals must be able to invest in the latest healthcare devices and systems, such as the use of IoT (Internet of Things) for medical equipment, as well as electronic medical records. These investments will enable faster, more accurate, and more efficient services, improving the overall patient experience. However, technological innovation alone is not enough. Hospitals also need to ensure that their human resources are able to operate the technology optimally. Regular and structured staff training is key to ensuring that any new technology can be implemented properly without disrupting operations. In many cases, sophisticated medical technology requires specialized expertise, so in-depth training is essential. Adapting quickly to technological changes also means that hospitals must be prepared to face new challenges that may arise, such as implementation costs and the need for infrastructure updates. This finding is in line with Pradana, et al. [41] and Sucia and Belasunda [60] without rapid innovation and adaptation, hospitals risk being left behind by more progressive competitors in technology-based healthcare services.

Hospitals must maintain a balance between cost and quality of service with a transparent pricing policy. This will increase patient confidence while maintaining profit margins in the face of rising operating costs (STH3, STH4, TH3, TH4) Strategy II.

Hospitals must carefully maintain a balance between operational costs and service quality to remain competitive and trustworthy. A transparent pricing policy is key to increasing patient trust. When patients understand the details of healthcare costs, they will be more confident and feel that the costs charged are fair. However, this price transparency also requires efficient operational management, so that hospitals do not only rely on price increases to cover increased operational costs. Operational efficiency can be achieved through process optimization, such as automation of registration and procurement systems, reduced waiting times, and the use of technology that can increase productivity. If hospitals are able to reduce costs without sacrificing service quality, profit margins can be maintained, even when operational costs, such as labor, equipment, and infrastructure, continue to increase. This finding is in line with Pradana and Hariastuti [40] and Aprilila, et al. [29]. Therefore, this strategy requires a fine balance between maintaining high quality of service and continually seeking ways to

improve efficiency, whether through technology, staff training, or careful resource management, so that the hospital remains competitive and financially sustainable.

By implementing electronic medical record systems and automation, hospitals must also focus on cybersecurity to protect patient data from cyber attacks that have the potential to disrupt operations (STH14, TH12) Strategy III.

The implementation of electronic medical record systems and automation in hospitals is essential to improve efficiency and quality of service. These systems enable faster, more accurate, and integrated management of patient data, allowing doctors and medical staff to provide better care. However, the implementation of this technology also increases the risk of cybersecurity. Cybersecurity is crucial because patient data is highly sensitive information. Cyberattacks, such as hacking or ransomware, can result in major losses, both financially and to the hospital's reputation. Data breaches can damage patient trust, while operational disruptions due to cyberattacks can slow down or even stop healthcare services. These findings are in line with Komari, et al. [61] therefore, hospitals need to focus on developing a strong security system to protect patient data. This includes the use of encryption, firewalls, and advanced security protocols, and staff training on cybersecurity practices. In addition, investment in security technology and regular audits are also needed to ensure that systems are protected from evolving cyber threats, so that hospital operations continue to run smoothly and safely.

The use of automation systems in registration, patient management, and procurement of goods should be optimized to reduce waiting time and increase efficiency. However, these systems must be implemented well to avoid operational disruptions (STH11, TH11) Strategy IV.

The use of automation systems in hospitals, especially in registration, patient management, and procurement, is very important to improve operational efficiency. With automation, patient waiting times can be reduced significantly, because processes that are usually done manually become faster and more accurate. In addition, automation also helps hospital management in monitoring patient flow, stock of goods, and other logistical needs, so that resources can be managed more efficiently.

However, the implementation of this automation system must be done carefully. If not designed and implemented properly, automation can actually cause operational disruptions, such as technical errors, inaccessible systems, or unsynchronized data. This can hinder service and reduce patient satisfaction. This finding is in line with Yuliasari, et al. [19] therefore, hospitals need to ensure that the technology chosen is appropriate to their needs, operated by trained staff, and supported by adequate security and maintenance systems. With good implementation, automation can increase productivity, reduce human error, and provide a better experience for patients, while maintaining smooth hospital operations.

Hospitals need to increase collaboration with insurance companies to attract more patients with minimal promotional costs, while developing efficient digital marketing strategies so as not to rely too much on platforms that may face algorithm changes (STH5, STH6, TH5, TH6) Strategy V.

Hospitals need to increase collaboration with insurance companies to expand access to healthcare services for patients with lower promotional costs. This collaboration can benefit both parties: hospitals can reach more patients who are interested in their services due to insurance coverage, while insurance companies can offer more attractive packages to their clients. This collaboration also helps reduce the high costs of traditional marketing, such as advertising and promotions, which often do not provide maximum results. This finding is in line with Budde, et al. [62] where hospitals must develop an efficient digital marketing strategy to offset promotional costs and reach a wider audience. Digital marketing, such as social media campaigns, SEO, and web-based content, offers a cost-effective way to attract new patients. However, hospitals must be careful not to rely too heavily on a single digital platform because their algorithms change frequently, which can affect the visibility and effectiveness of a campaign. Diversifying digital marketing strategies by using multiple platforms and techniques will help hospitals stay adaptive and continue to attract patients despite changes in algorithms or market trends.

4.2. QSPM based Strategy Ranking

The ranking results in the QSPM (Quantitative Strategic Planning Matrix) analysis provide insight into the priority strategies that hospitals must take to increase their competitiveness. Here is an in-depth explanation of the five strategies ranked by the number of their attractiveness scores:

4.2.1. Investment in Technology and Staff Training (3.53)

This strategy has the highest appeal, showing that technological innovation and staff training are essential. With rapid changes in healthcare technology, hospitals must invest in the latest systems to ensure services remain relevant and competitive. Ongoing training for staff is also essential to enable them to make the most of technology.

4.2.2. Transparent Pricing Policy (3.41)

The balance between operational costs and service quality with transparent pricing policies is in second place. Price transparency can increase patient trust and help maintain profit margins, especially in the face of rising operational costs.

4.2.3. Cyber Security and Electronic Medical Records (3.40)

Implementation of electronic medical record systems and cybersecurity is the third priority. This emphasizes the importance of protecting patient data from cyber attacks that can disrupt operations and damage the hospital's reputation.

4.2.4. Automation for Operational Efficiency (3.40)

The automation strategy of patient registration and management systems ranked fourth. Operational efficiency can be improved with automation, but it must be implemented carefully so as not to cause technical disruptions.

4.2.5. Collaboration with Insurance and Digital Marketing (3.38)

Collaboration with insurance companies and developing digital marketing strategies are also important. Although ranked last, this strategy still has high appeal because it can help hospitals reach more patients with minimal promotional costs.

5. Conclusion

This SWOT strategy study, reveals the need to adapt to changes in healthcare technology through investment in technological innovation and staff training to operate it optimally. By implementing modern technologies, such as IoT and electronic medical records, healthcare services can be improved, although such investments also bring challenges, including cybersecurity risks. To maintain patient trust and satisfaction, hospitals need to implement transparent pricing policies, while increasing operational efficiency. Automation of registration systems, patient management, and procurement are important steps to reduce waiting times, but must be implemented well so as not to disrupt operations. Collaboration with insurance companies is also key to attracting more patients with minimal promotional costs. In addition, developing an effective digital marketing strategy, without relying too much on one platform, will help hospitals maintain competitiveness and operational sustainability amidst the dynamics of the market and ever-evolving technology. The QSPM study reveals that the QSPM shows that investment in technology and staff training (3.53) is the most important strategy, as technological innovation and continuous training are crucial to maintaining the relevance and competitiveness of hospitals. Transparent pricing policies (3.41) came in second, with a focus on balancing operational costs and service quality, as well as increasing patient trust. Cybersecurity and electronic medical records (3.40) came in third, emphasizing the need to protect patient data from

cyber threats. Automation for operational efficiency (3.40) came in fourth, with attention to careful implementation to prevent technical disruptions. Finally, collaboration with insurance and digital marketing (3.38) although in last place, remain important as they can help expand patient reach with low promotional costs.

Transparency:

The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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