

ANTECEDENTS OF PATIENT SATISFACTION AND ITS IMPACT ON WORD OF MOUTH: A STUDY ON OUTPATIENTS AT XYZ PRIVATE HOSPITAL IN MAKASSAR CITY

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ABSTRACT

Word of mouth is beneficial for hospitals as it provides essential feedback for every department, attracts new patients, retains loyal ones, and ensures the hospital's business sustainability. This is particularly crucial for private hospitals in maintaining profitability, service continuity, and reputation amid increasingly intense competition in the hospital industry. The objective of this research is to determine the influence of patient satisfaction antecedents in outpatient services on word of mouth. These antecedents will be assessed from the factors of people, process, and physical evidence, which are elements of the marketing mix. This quantitative study used the distribution of questionnaires to sample respondents within the research population. Four hypothesis pathways were analyzed using PLS-SEM. Primary data were collected from outpatient patients at private hospital XYZ in Makassar city in April 2023, with a total of 208 respondents. The results indicate that the factors of people, process, and physical evidence positively influence patient satisfaction, with the people variable having the strongest positive influence among the three independent variables. Moreover, patient satisfaction has a strong positive impact on word of mouth. This research is expected to contribute to private hospitals by improving their outpatient services, enhancing word of mouth, and elevating the hospitals' image.

Keywords: *marketing mix, outpatient services, patient satisfaction, word of mouth*

INTRODUCTION

The healthcare industry is increasingly advancing and evolving in line with global developments and plays a crucial role in a country's progress.

Hospitals are comprehensive health institutions that require appropriate marketing strategies to adapt and thrive with the times. In Indonesia, the hospital business has seen rapid growth year after year. According to the Central Bureau of

Statistics, Indonesia's population is projected to continually increase from 275 million in 2022 to 294 million by 2030.¹ The hospital bed ratio in Indonesia, which is the number of beds per 1,000 population, is still below the WHO standard (3 hospital beds: 1,000 population). It stood at 1.20 per 1,000 population in 2021, an improvement from 1.04 in 2017.² Another demographic aspect to consider is the uneven distribution and availability of hospitals, primarily concentrated on the Java island, indicating higher potential for hospital development outside Java.

This research conducted a case study at XYZ hospital, a leading private hospital in Makassar city. The hospital serves as the first choice for residents of Makassar and surrounding areas, and it also functions as a referral center for patients from other provinces, boasting international-standard private care. Therefore, XYZ hospital presents an intriguing subject for analyzing private hospital management in the Eastern Indonesia region. Additionally, private hospital patients typically possess upper-middle socioeconomic status and high levels of education, allowing them to reflect the expectations and aspirations of hospital customers. While XYZ hospital boasts a respectable Google review rating of 4.5, interviews with operational management revealed a target Google review rating of 4.6 for 2022, which remains unachieved. This discrepancy presents a gap phenomenon explored within this research.

Research subject focused on outpatient services since they reflect the quality of hospital services.³ The outpatient service in a hospital is a primary gateway where patients can get to know and experience medical treatment in the hospital. It is through this experience that word of mouth can be formed.

Word of mouth influences patient visits to hospitals and improves hospital profitability.⁴ Previous empirical research has found that word of mouth is a good marketing medium for a company,⁵ including for hospitals.⁶⁻⁸ Word of mouth is useful for hospitals as it provides essential feedback for every department within the hospital, attracts new patients, retains loyal patients, and ensures the hospital's business sustainability. This is crucial for hospitals, especially private ones, in maintaining profitability, service continuity, and reputation amid the increasingly intense hospital business competition.⁸

According to Akbolat *et al.*,⁸ word of mouth is a result of patient satisfaction and experience that is beneficial for patients and also valuable for others in need of similar health services. Patient satisfaction is an interactive process between the patient and the hospital, reflecting the quality of medical care received by the patient.⁹ Patient satisfaction highlights to which a patient's expectations, goals, and aspirations are met by the hospital in its medical service area,¹⁰ thus serving as an indicator of success for hospitals or healthcare providers. A study by Hsu *et al.*¹¹ found that patient satisfaction is the most influential factor for word of mouth. Research by Akbolat *et al.*⁸ also showed that patient satisfaction has a direct positive influence on word of mouth.

The marketing mix theory (people, process, and physical evidence) can be one of the antecedents influencing patient satisfaction. Studies by Nasution *et al.*¹² and Lubis *et al.*¹³ found that the "people" factor (medical staff, including doctors and nurses, as well as administrative staff who are polite, neatly dressed, and communicate well) has a positive influence and a significant relationship with patient

satisfaction. Another study conducted by Chana *et al.*,¹⁴ also found a positive influence of the "people" factor on patient satisfaction. The "process" factor in hospital management assists in ensuring the availability and consistency of medical service quality.¹⁵ The process factor is one of the factors influencing patients' behavior in choosing and visiting a particular hospital.¹⁶ Several studies^{17,18} found a positive influence between the process factor and patient satisfaction. The "physical evidence" factor includes the environment where services are provided and the infrastructure that can facilitate the performance of service operations. Impressions from the physical evidence factor support patient satisfaction¹⁵ and influence patient visits to the hospital.¹⁶ Research by Sreenivas *et al.*¹⁹ identified physical appearance of the hospital as one of the key factors for patients when choosing a hospital. These studies suggest that a good perception of physical evidence will influence patient satisfaction.

Based on the description above, this study aims to determine the influence of patient satisfaction antecedents in relation to the marketing mix in outpatient services on word of mouth and to provide references and input for hospital management to improve outpatient services. Another objective is to contribute to the literature on patient satisfaction and word of mouth in outpatient care.

METHOD

This research is a quantitative study that tests variables based on measurable data. Data collection is conducted by distributing questionnaires through a Google form to respondents in the target research population. The target population

for this study is outpatient patients with private financing during the month of April 2023 at private hospital XYZ in the city of Makassar. The minimum sample size in this study was 160 samples, calculated using the inverse square root method.²⁰ The sampling technique used was probability sampling, resulting in a total of 208 respondents who met the minimum sample size requirement.

The independent variables in this study are the people, process, and physical evidence. Meanwhile, the mediating variable is patient satisfaction, and the research object as the dependent variable is word of mouth. This study used Likert Scale, consisted of five answer choices: 1- strongly disagree, 2 for disagree, 3 for neutral, 4 for agree, and 5 for strongly agree. The research questionnaire contained statements related to the study's variables, complemented by five answer choices on the Likert Scale ranging from 1 to 5. There were also questions about the respondents' profiles and behaviors related to outpatient services at XYZ Hospital.

The PLS-SEM method in this study used the SmartPLS 4 software to observe the path analysis in understanding the influence between variables. PLS-SEM consists of two elements, namely the outer model and the inner model. The outer model is used to assess the quality of variable measurement by testing reliability and validity. Reliability testing is done by measuring the outer loading and composite reliability values. An outer loading value above 0.5 could still be accepted if construct validity and reliability met the requirements. Construct reliability is assessed from the composite reliability with the criterion value above 0.7. As for convergent validity, it is assessed by the AVE (Average variance extracted) with a limit above 0.5 to be stated as valid

criteria.²¹ Next, discriminant validity testing was conducted using the Fornell-Larcker Criterion, which states that the construct value of each variable must be higher compared to the construct values of other latent variables.

The inner model is used for evaluating the relationships among variables in a research model. In the analysis of the inner model, the measurement of collinearity testing is performed using the Variance Inflation Factor (VIF), R-square (R²) or coefficient of determination, as well as path coefficients and hypothesis testing. In the

collinearity test, a VIF value greater than 5 indicates a problem of multicollinearity in the research model. The R² value ranges from 0 to 1, where a higher value indicates a greater influence of the independent variables on the dependent variable.²¹

RESULTS AND DISCUSSIONS

Demographic Profile

The respondent data for this research was obtained from online questionnaires distributed in April 2023 to 208 respondents. The demographic profile is presented in Table 1.

Table 1. Respondent Profile

Description	Category	Amount	Percentage
Gender	Man	73	35%
	Woman	135	65%
	Total	208	100%
Age	<20 years old	3	1%
	21-30 years old	42	20%
	31-40 years old	79	38%
	41-50 years old	55	26%
	51-60 years old	25	12%
	>60 years old	4	2%
	Total	208	100%
Marriage Status	Single	63	30%
	Married	139	67%
	Divorced	6	3%
	Total	208	100%
Education Level	High School or Equivalent	58	28%
	Bachelor/S1 or equivalent	138	66%
	Magister/S2 or equivalent	12	6%
	Doktoral/S3 keatas	0	0%
	Total	208	100%

Based on Table 1, out of the 208 respondents, 65% were female and 35% were male. This data indicates that the outpatient clinic of private hospital XYZ in Makassar city is visited more by female

patients. In terms of age, the largest age group visiting the outpatient clinic was the 31-40 age group, accounting for 38%, followed by the 41-50 age group at 26% and the 21-30 age group at 20%.

Meanwhile, the age group above 50 years old accounted for only 14%. This suggests that many respondents in their productive age seek outpatient health services in hospitals and are also related to the use of technology at a young age, hence they are more familiar with filling out online questionnaires.

In terms of marital status, a majority of 67% of respondents were married, indicating that patients with families pay more attention to health and have financial assistance from their partners. Regarding the educational background, a majority of 72% of respondents had completed undergraduate and postgraduate studies, indicating respondents have good capability and understanding of the questionnaire content, as well as awareness of quality health. In terms of occupation, the majority were private employees at 43%, followed by entrepreneurs or self-employed at 20%, and housewives at 15%. In terms of monthly income, 51% of respondents had an income below ten million per month, and 33% of respondents had an income between ten to twenty million per month. Both of these aspects show that respondents have a relatively stable income each month and good purchasing power. Respondents with a good educational background, stable jobs, and income will seek quality health services

and are willing to use their personal funds to obtain such services.

Based on the distribution of residence locations, the majority of respondents came from the city of Makassar, accounting for 76%, followed by cities around Makassar at 20%, and even from outside the province of South Sulawesi at 4%. This aligns with the strategic location of the hospital in the city of Makassar and its reputation as a well-known hospital in the province of South Sulawesi. In terms of the type of outpatient patients, it is dominated by old or recurring patients, accounting for 71%. This indicates that outpatient clinic patients are quite satisfied with the existing services and choose to return for future visits.

The demographic profile of these respondents can provide input for the hospital's management in devising marketing plans to increase the number of patients with private financing. For example, by creating service packages tailored for women of productive age, priced affordably, for patients who are actively working and require health checks appropriate to their needs. Additionally, there could be rewards for loyal patients.

Outer Model

The result of reliability and convergent validity tests is presented in Table 2.

Table 2. Outer Model Analysis Result

Variable	Indicator	Outer loading	Composite Reliability (CR)	Average Variance Extracted (AVE)
People	PL2	0.828	0.898	0.708
	PL4	0.881		
	PL5	0.862		
	PL6	0.836		
	PL7	0.798		
Process	PR2	0.874	0.853	0.652

Variable	Indicator	Outer loading	Composite Reliability (CR)	Average Variance Extracted (AVE)
	PR3	0.882		
	PR6	0.853		
	PR8	0.581		
Physical evidence	PE1	0.780	0.881	0.619
	PE3	0.801		
	PE4	0.745		
	PE5	0.889		
	PE7	0.778		
	PE8	0.718		
Patient Satisfaction	PS1	0.836	0.936	0.758
	PS2	0.889		
	PS3	0.918		
	PS4	0.856		
	PS5	0.888		
	PS7	0.834		
Word of Mouth	WOM1	0.874	0.940	0.751
	WOM2	0.912		
	WOM3	0.925		
	WOM4	0.870		
	WOM5	0.718		
	WOM6	0.673		

Based on Table 2, the outer loading value was above 0.5 and composite reliability was above 0.7 for all its indicators, indicating that all indicators used were reliable for measuring their latent variables. Furthermore, From the table, all variables, e.g., the people, process, physical evidence, patient satisfaction, and word of mouth variables showed values of AVE

were above 0.5, indicating that all the above variables were valid.

Subsequently, a discriminant validity test was conducted to see if the latent variable had well-discriminated indicators, so it could be used to measure the variable. The discriminant validity test is presented in Table 3.

Table 3. Fornell-Larcker Test Result

	Patient Satisfaction	People	Physical evidence	Process	Word of Mouth
Patient Satisfaction	0.870				
People	0.800	0.841			
Physical evidence	0.727	0.632	0.787		
Process	0.785	0.758	0.761	0.807	
Word of Mouth	0.828	0.731	0.664	0.765	0.834

Table 3 showed that the Fornell-Larcker test result were satisfactory. Thus, the research model had been tested for its reliability and validity and could proceed with the structural model/inner model analysis and hypothesis testing.

Inner Model

The results showed a Variance Influence Factor (VIF) < 5 for the relationship between patient satisfaction and word of mouth, people and patient satisfaction, and physical evidence with patient satisfaction, as well as process with patient satisfaction. This indicated that the relationships among these variables did not have multicollinearity problems.

Furthermore, the result of the

coefficient of determination test showed that the variable "patient satisfaction" can be explained by the variables "people," "process," and "physical evidence" by 74.1%, while the remaining 25.9% is explained by other variables outside of the study. The variable "word of mouth" can be explained by "patient satisfaction" by 68.6%, and the remaining 31.4% is explained by other variables outside of this research model. Therefore, this research model can still be further developed with larger and more specific sample testing or replicated in future studies targeting different populations.

The results of the path coefficient and hypothesis testing is presented in Table 4.

Table 4. Hypothesis Testing with path coefficient

Hypothesis	<i>Standardized Path coefficient</i>	<i>p-values</i>	Decision
H1: The "People" factor has a positive influence on patient satisfaction in the outpatient services of private hospital XYZ in Makassar.	0.451	0.000	Supported
H2: The "Process" factor has a positive influence on patient satisfaction in the outpatient services of private hospital XYZ in Makassar.	0.253	0.001	Supported
H3: The "Physical Evidence" factor has a positive influence on patient satisfaction in the outpatient services of private hospital XYZ in Makassar.	0.249	0.000	Supported
H4: The "Patient Satisfaction" factor has a positive influence on word of mouth in the outpatient services of private hospital XYZ in Makassar.	0.828	0.000	Supported

Based on the hypothesis testing, it appears that all four hypothesis pathways in the research model significantly influence

and support all variables. Each variable has a positive coefficient value consistent with the proposed hypothesis direction.

For hypothesis H1, it has a moderate positive path coefficient value of 0.451, which indicates that the "people" variable has a moderate positive influence on patient satisfaction. The p-value for H1 is 0.000, indicating that the "people" variable has a significant impact on patient satisfaction. Both of these findings suggest that H1 or the first hypothesis is supported. If the "people" variable increased, it is followed by an increase in the patient satisfaction variable regarding outpatient clinic services at private hospital XYZ in Makassar. The result of hypothesis H1 supports previous research findings¹²⁻¹⁴ stating that the "people" variable had a positive and significant relationship with patient satisfaction.

For hypothesis H2, it has a weak positive path coefficient value of 0.253 towards patient satisfaction and a p-value of 0.001. This indicates that the "process" variable has a positive and significant impact on patient satisfaction, supporting H2 or the second hypothesis. If the "process" variable increases, it will result in an increase in the patient satisfaction variable regarding outpatient clinic services at private hospital XYZ in Makassar. The result of hypothesis H2 is consistent with previous research findings^{14,17} which stated that the "process" variable positively influenced patient satisfaction.

In hypothesis H3, a weak positive path coefficient of 0.249 was found towards patient satisfaction, along with a p-value of 0.000, indicating that the physical evidence variable has a positive and significant

impact on patient satisfaction. Therefore, H3 or the third hypothesis is supported. If the physical evidence variable increases, it will also be followed by an increase in the patient satisfaction variable regarding outpatient services at XYZ Hospital. For the physical evidence variable, the results of hypothesis H3 are also in line with previous studies^{14,16,22}, which state that physical evidence positively affects patient satisfaction

For hypothesis H4, it has a strong positive path coefficient towards word of mouth with a p-value of 0.000. This shows that the "patient satisfaction" variable has a strong positive and significant influence on word of mouth, supporting H4 or the fourth hypothesis. If the "patient satisfaction" variable increased, it will result in an increase in the word of mouth variable regarding outpatient clinic services at private hospital XYZ in Makassar. The impact of patient satisfaction on word of mouth has been previously researched.^{8,11,23} These studies found that patient satisfaction has a positive and significant effect on word of mouth, which is consistent with the results of hypothesis H4.

Analysis of Importance-Performance Map Analysis (IPMA) Result

The Importance-Performance Matrix Analysis (IPMA) is used to evaluate the importance of variables in the research model and the extent to which these variables influence the desired outcomes. The results of the IPMA are presented in Figure 1.

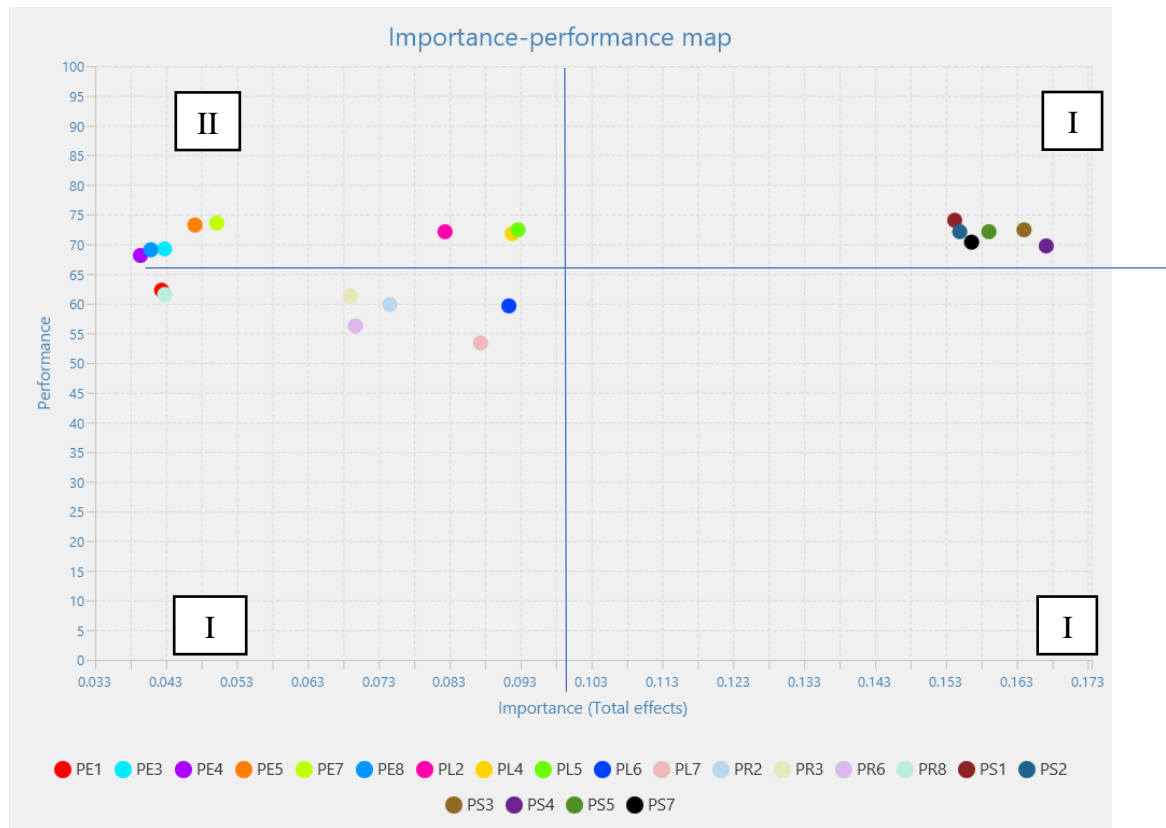


Image 1. Importance-Performance Map Analysis (IPMA) Mapping

In Quadrant I, all indicators from patient satisfaction (friendliness, explanation, attention, therapy, doctor reputation, and outpatient clinic comfort) and two indicators from the variable people, e.g., PL4 (doctor's attention to patients) and PL5 (doctor's responsiveness in examining patients), already show good performance and need to be maintained. Most of the indicators in Quadrant I are closely related to the services of specialist doctors, in line with the results of hypothesis H1, which states that the people variable has the largest positive influence among the three independent variables studied.

In this quadrant, it is clear that patients feel satisfied in the outpatient clinic because they have met and received services from specialist doctors. Therefore, the availability of specialist doctors is a primary concern for hospital management.

Every patient who comes to the hospital is expected to receive specialist doctor services that match the patient's condition. The number of practice hours, schedule arrangements, and the arrangement of specialist doctor rooms play a crucial role in maintaining patient satisfaction. Management needs to build good communication and relationships with specialist doctors to facilitate practice schedule arrangements. There are many challenges in arranging practice schedules, including doctors taking both scheduled and sudden leave, doctors attending courses, seminars, or studies out of town or abroad, doctors working at other hospitals, doctors who are also lecturers, and unforeseeable events like illnesses and bereavement.

Hospital management plays a role in helping specialist doctors feel comfortable working, supported in developing their

competencies, and assisted in times of adversity. On the other hand, hospital management also needs to manage outpatient scheduling so patients continue to receive quality service, regardless of internal issues. Besides maintaining the loyalty of specialist doctors who have worked at the hospital, management needs to evaluate the performance of specialist doctors and seek solutions to improve the performance of less productive doctors. Another way to ensure the availability of specialist doctors is to recruit new ones. Considerations in recruiting specialist doctors include community needs, the type of service the hospital wants to enhance, and the availability of rooms and practice hours for outpatient services. The demographic profile of hospital visitors, a list of the most common diseases, a list of the most frequent surgical procedures, and input from the team of specialist doctors can be considerations for management to recruit the specialist doctors the hospital needs.

In Quadrant II, there is only one indicator, PL6, concerning the reliability of doctors in treating other doctors, which has not shown good performance. This can be a primary concern for hospital managers to evaluate matters related to the level of patient trust in the reliability of specialist doctors. One factor related to patient trust in specialist doctors is the doctor's reputation. Psychologically, patients will more easily trust the competence of a doctor if they see tangible evidence such as displayed doctor's charter or certificate, the doctor's degree displayed on the signboard, and details about the expertise and work experience of specialist doctors on social media and public seminars. Another factor is the personal nature of each specialist doctor. Doctors who communicate

effectively, have good ethics, empathize with patients, are responsive, and provide continuous care will offer a positive experience for patients and increase patient trust.

Hospital management can assist doctors in this regard by ensuring doctors are comfortable while working in the outpatient clinic, ensuring doctors are supported by alert and professional nurses, ensuring the comfort of the clinic room and the equipment used by doctors is in good condition, and providing easy information about the completeness of supporting services (laboratory, radiology, and pharmacy) and a short administrative flow to doctors. Specialist doctors will feel more comfortable working if they understand what they can do and what the hospital provides, and these specialist doctors will appear more professional in the eyes of patients. In addition, management can also build patient trust in specialist doctors at the administrative stage. Easy access to register with a doctor, certainty of appointment time with a doctor, and information about the doctor's practice schedule will increase patient trust in the reliability and professionalism of the doctor.

The type of patient also plays a role in the level of trust in specialist doctors. Long-term or repeat patients tend to trust specialist doctors more than new patients. To increase the trust of new patients, one way is to enhance the recommendations for specialist doctors. Positive recommendations or word of mouth from family, friends, or other patients can be a meaningful factor in building patient trust. Management can provide support for specialist doctors to develop their knowledge through seminars or medical training, and then assign the hospital's marketing department to increase

socialization about the competence of specialist doctors owned by the hospital to the surrounding community through social media as well as public education and seminars.

In quadrant III, there are six indicators: PL2, PE3, PE4, PE5, PE7, PE8. The PL2 indicator, which refers to the patience of specialist doctors in explaining, turns out not to be essential for patients. If we look at the PS2 indicator in quadrant I, which states that patients are satisfied with the explanations given by specialist doctors, it can be concluded that the quality of the explanation's content is considered important for patients. However, it should also be noted that patience in patient education is still needed when doctors encounter patients with hearing impairments or the elderly.

The other five indicators 're from physical evidence, which concern the arrangement or layout, air temperature, lighting, cleanliness of medical equipment, and outpatient signage. The hospital has allocated a significant budget for facility improvements and the rejuvenation of air conditioning and lighting systems to comply with government standards set in the Health Minister Regulation no. 7 of 2019. Although layout, air temperature, lighting, cleanliness of medical equipment, and signage are still not considered important by patients, the hospital still focuses on managing these aspects properly. Periodic improvements still need to be carried out, applying a priority scale and savings without reducing equipment quality, to ensure that there's no budget overshooting. From the consumer's perspective, a poorly organized layout and unclear room signage can confuse outpatient patients. If the air temperature is too hot or too cold, lighting that's too bright

or too dim can also make both patients and hospital staff uncomfortable. If medical equipment is not clean, there's a risk of equipment breaking down quickly and being potentially infectious, endangering both patients and medical staff using the equipment. These issues can lead to negative word of mouth in the future, which the hospital seeks to avoid. A crucial consideration for the hospital is how to maintain quality without overspending.

CONCLUSION

Based on the result and discussion in the previous chapter, it can be concluded that the "people" factor has been proven to have a significant moderate positive influence on patient satisfaction. The "process" factor has been proven to have a significant weak positive influence on patient satisfaction. The "physical evidence" factor has been proven to have a significant weak positive influence on patient satisfaction. Among the three independent variables studied, the "People" variable has the strongest positive influence compared to the other independent variables. In addition, the "process" variable has a slightly higher positive influence compared to the "physical evidence" variable. Patient satisfaction variable has also been significantly proven to have a positive influence on Word of Mouth.

This research has its limitations, one of which is in terms of distributing the questionnaire which was done online. Several factors influence the respondents in filling out the questionnaire, including mood, the respondent's level of busyness, and the time gap between filling out the questionnaire and the actual experience when consulting with doctors in the

outpatient clinic. To minimize these limitations, it is suggested that data collection or distribution of questionnaires to be conducted directly at the hospital after the patients finish consulting with specialist doctors in the outpatient clinic. Additionally, the time to distribute the questionnaire was quite limited, resulting in a not very large sample size. Future research is recommended to test hypotheses on a larger sample size or different target populations. Furthermore, the types of outpatient clinics visited by patients were

not categorized in this study, offering an opportunity for future studies to investigate specific outpatient clinic types according to the doctor's specialization available in the hospital.

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