



Analysis of The Influence Total Quality Management Strategy in Improving Service Quality at Andimas Merangin Hospital

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INTRODUCTION

The healthcare sector plays a critical role in promoting societal well-being and has experienced considerable growth in recent years. This expansion is driven by multiple factors, including the rising prevalence of chronic diseases, increasing population density, an aging demographic, and widespread adoption of unhealthy lifestyle behaviors (Suman & Prajapati, 2021). One of the health service industries that plays a role in organizing health services to the community is the Hospital (Van Zyl-Cillie et al., 2024).

Hospitals, as healthcare service providers, face numerous problems in fulfilling service standards, including issues related to healthcare personnel, service duration, and the public's level of health knowledge Ridwan (2025) and level poverty public (Hasmi et al., 2024). These factors are the cause of the poor image of hospital services (Shortell et al., 2021).

Various strategies have been developed to enhance service quality in hospitals, one of which is Total Quality Management (TQM). TQM is a structured methodology aimed at

improving service quality through continuous improvement practices, with the ultimate goal of achieving patient satisfaction (Tessema et al., 2024).

Previous studies have demonstrated that the implementation of Total Quality Management (TQM) has a significant positive impact on service quality. Daqar (2020), The study revealed a positive and direct relationship between four Total Quality Management (TQM) factors customer satisfaction, employee engagement, continuous improvement Arhin et al., (2024), and top management commitment are positively associated with service quality, whereas a negative direct relationship has been observed between process orientation and service quality (Ikeotuonye et al., 2025).

The study found a significant positive relationship between the implementation of Total Quality Management (TQM) and overall hospital performance (Lepistö et al., 2024). Further findings revealed that the top management leadership construct was the most influential factor contributing to hospital performance (Halawa et al., 2024), whereas training was identified as the least contributing factor (Tessema et al., 2024).

Although Andimas Hospital has implemented Total Quality Management (TQM), there has been no notable improvement in the quality of services provided to the community. This is reflected in a consistent decline in the number of patient visits over the past three years. In 2022, the hospital recorded 23.012 visits; this number dropped to 22.192 in 2023, and further declined to 10.717 as of June 2024. Interviews with hospital service users revealed widespread dissatisfaction, with many patients reporting a perceived decline in service quality at Andimas Hospital in Merangin Regency.

Implementing TQM practices to improve customer satisfaction has become imperative. This study will examine specific elements of Total Quality Management such as quality control mechanisms, employee involvement, and continuous improvement processes—to evaluate their effectiveness in enhancing patient satisfaction.

Based on the aforementioned phenomenon, previous studies have generally reported a positive relationship between the implementation of Total Quality Management (TQM) and service quality in hospitals. However, at the research site Andimas Hospital in Merangin Regency a contrasting pattern has emerged, where the relationship appears to be negative. Furthermore, no prior studies on TQM have been conducted at this institution. These two aspects represent the key novelties of the present study.

METHODS

This study employed a quantitative research approach using a cross-sectional design. The research was conducted at Andimas Hospital in Merangin Regency from April to June 2024. The study population comprised all health workers at the hospital, totaling 202 individuals. A total sampling technique was used, thereby including the entire population.

Data collection was carried out using a structured questionnaire that measured several components of Total Quality Management (TQM), including customer focus, overall employee involvement, process orientation, integrated systems, strategic and systematic approaches, continuous improvement, fact-based decision-making, communication, and service quality improvement. The questionnaire utilized a Guttman scale format.

Prior to deployment, the questionnaire was validated by three experts in quality management, yielding a Content Validity Index (CVI) of 0.92, indicating excellent content validity. The collected data were analyzed using SPSS, with bivariate analysis conducted through the Chi-Square test, and multivariate analysis using Logistic Regression. The Chi-Square test was selected due to its suitability for examining the relationship between two categorical variables and for identifying significant differences between observed and expected frequencies. Logistic Regression was applied due to the binary nature of the dependent variable.

This study received ethical approval from the Research Ethics Committee under Reference Number: 007/KEPPK/UNPRI/IV/2024. Ethical considerations included ensuring participant confidentiality and obtaining informed consent through signed agreements.

RESULTS

Table 1. Sociodemographic data of the respondents (N=202)

Variable	Frequency	Percentage
Age		
< 26 years	2	1.0
26-35 years	58	28.7
> 45 years	142	70.3
Gender		
Man	78	38.6
Woman	124	61.4
Education		
Bachelor's Degree	174	86.1
Master's Degree	28	13.9
Total	202	100

A total of 202 healthcare workers at Andimas Hospital, Merangin Regency participated in this study. As shown in Table 1, the majority of respondents were aged over 45 years (70.3%), female (61.4%), and held a bachelor's degree (86.1%).

Table 2. Distribution of Variables at Andimas Hospital Merangin Regency (N=202)

Variable	Frequency	Percentage
Focus on Customer		
Not enough	86	42.6
Good	116	57.4
General Employee Engagement		
Not enough	85	42.1
Good	117	57.9
Focus on the Process		
Not enough	83	41.1
Good	119	58.9
Integrated System		
Not enough	91	45.0
Good	111	55.0
Strategic and Systematic Approach		
Not enough	82	40.6
Good	120	59.4
Continuous Improvement		
Not enough	81	40.1
Good	120	59.9
Decision Based on Facts		
Not enough	81	40.1
Good	121	59.9
Communication		
Not enough	86	42.6
Good	116	57.4
Improving Service Quality		
Not enough	84	41.6
Good	118	58.4
Total	202	100

Table 2 indicates that several key TQM components were perceived as insufficient by a substantial portion of respondents. Specifically, 42.6% of respondents reported insufficient focus on customers, 42.1% noted inadequate employee engagement, and 45.0% highlighted weaknesses in the integrated system. Other components such as continuous improvement, fact-based decision-making, and communication also showed similar trends, with around 40% reporting inadequacies.

**Table 3. Cross Tabulation of Service Quality Improvement at Andimas Hospital
Merangin Regency**

Variable	Improving Service Quality						p value	OR
	Not enough		Good		Total			
	f	%	f	%	f	%		
Focus on Customer								
Not enough	45	22.3	41	20.3	86	42.6	0.012	2.167
Good	39	19.3	77	38.1	116	57.4		
General Employee Engagement								
Not enough	47	23.3	38	18.8	85	42.1	0.001	2.674
Good	37	18.3	80	67.8	117	57.9		
Focus on the Process								
Not enough	42	20.8	41	20.3	83	41.1	0.042	1.878
Good	42	20.8	77	38.1	119	58.9		
Integrated System								
Not enough	60	29.7	31	15.3	91	45.0	0.000	7.016
Good	24	11.9	87	43.1	111	55.0		
Strategic and Systemic Approach								
Not enough	53	26.2	29	14.4	82	40.6	0.000	5.247
Good	31	15.3	89	44.1	120	59.4		
Continuous Improvement								
Not enough	46	22.8	35	17.3	81	40.1	0.001	2.871
Good	38	18.8	83	41.1	121	59.9		
Decision Based on Facts								
Not enough	46	22.8	35	17.3	81	40.1	0.001	2.871
Good	38	18.8	83	41.1	121	59.9		
Communication								
Not enough	49	24.3	37	18.3	86	42.6	0.001	3.065
Good	35	17.3	81	40.1	116	57.4		
Total	84	41.6	118	58.4	202	100		

Based on the results presented in Table 3, the Chi-Square test indicated significant associations between all observed Total Quality Management (TQM) variables and service quality improvement among the 202 respondents. Specifically, 42.6% of respondents reported inadequate customer focus, with a p-value of 0.012, indicating a statistically significant relationship between customer focus and service quality improvement. Furthermore, 42.1% reported insufficient employee involvement, with a p-value of 0.001, suggesting a significant effect of general employee engagement on service quality.

Additionally, 41.1% of respondents indicated a lack of process orientation ($p = 0.042$), 45.0% perceived the integrated system as inadequate ($p = 0.000$), and 40.6% reported weaknesses in the strategic and systematic approach ($p = 0.000$), all of which were significantly associated with service quality outcomes.

Moreover, 40.1% of respondents cited insufficient continuous improvement practices ($p = 0.001$), while 40.1% noted a lack of fact-based decision-making ($p = 0.001$), and 42.6%

reported poor communication practices ($p = 0.001$). These findings collectively confirm that each of these TQM components significantly influences the improvement of service quality at Andimas Hospital.

Table 4. Results of the Second Stage of Logistic Regression Analysis

Variable	B	p-value	Exp(B) OR	95% CI For Exp (B)
Focus on customers	-0.037	0.920	0.963	0.464-2.000
General employee engagement	0.087	0.840	1,090	0.471-2.527
Focus on the process	-0.811	0.068	0.444	0.186-1.061
Integrated system	1,505	0,000	4,504	2,245-9,038
Strategic and systematic approach	1,974	0.006	2,648	1,315-5,332
Continuous improvement	-0.505	0.295	0.603	0.234-1.554
Communication	0.239	0.573	1,270	0.553-2.919

Table 4 presents the results of the multivariate logistic regression analysis. The integrated system variable was found to be the most dominant factor influencing service quality, with a statistically significant p-value of 0.000 and an odds ratio (OR) of 4.504 (95% CI = 2.245–9.038). This suggests that respondents who perceived weaknesses in the integrated system were over 4.5 times more likely to report poor service quality. Similarly, the strategic and systematic approach variable also showed a significant positive association with service quality ($p = 0.006$, OR = 2.648). Other variables such as focus on the process, communication, and continuous improvement did not reach statistical significance in the multivariate model.

DISCUSSION

Not all health workers demonstrate adequate customer focus, as not all are involved in identifying patient needs or in communicating those needs across departments. In contrast, the human resources required by hospitals are fundamentally regulated through hospital accreditation standards, which define the necessary quantity, qualifications, and supporting service facilities that must be available. Standardized components such as human resources, management systems, and technology are essential to compete effectively and to establish hospitals that provide high-quality healthcare services. These elements are critical indicators for enhancing hospital reputation and profitability. Therefore, aligning all aspects of hospital operations toward a customer-focused approach is imperative.

The results of this study are in line with previous research Almutairi (2024) The findings revealed that although awareness of the importance of Total Quality Management (TQM) in healthcare is increasing, several barriers persist. These include moderate levels of

patient satisfaction, low job satisfaction among nursing staff, and cultural challenges experienced by expatriate healthcare workers.

However, the findings of this study are not consistent with those of previous research by Alshourah (2021) which stated that the implementation of Total Quality Management (TQM) has a positive effect on the quality of hospital services. Haroun et al., (2022) reported that TQM had a positive impact on patient care outcomes.

Creating a competitive advantage in healthcare services requires the active involvement of all employees, as their engagement is essential for achieving sustainable high performance (Aoun et al., 2018). Therefore, it is essential to understand the dimensions of employee sustainability that develop within the workplace. Based on the results of this study, it was found that all hospital staff work collaboratively in carrying out their tasks. Staff members share collective responsibility for work quality and uphold the principle of shared effort light duties are shared equally, and heavy responsibilities are carried together. In fulfilling institutional duties, hospital staff support and contribute to one another.

Furthermore, team members demonstrate a strong commitment to team success. They optimize their individual capabilities, understand their respective roles clearly, and align their efforts toward achieving organizational goals. Each team member exhibits a high level of awareness and willingly applies their full potential to contribute to the hospital's overall performance (Aichouni et al., 2023) .

Work engagement represents a form of positive energy that plays a crucial role in sustaining employee performance over time (Hamidi et al., 2021). Work engagement implies that employees will be focused, dedicated, and energetic in performing their duties, which in turn enhances their performance. Consequently, work engagement holds significant potential to improve organizational success and competitiveness factors that are critically important in today's dynamic healthcare environment. Furthermore, the limitations and capabilities of service providers play a key role in shaping the quality of service interactions. Effective service delivery requires a sense of empathy and alignment between the provider and the recipient, fostering a shared understanding. This suggests that every form of service provided must be attentive to the unique challenges faced by those receiving the service, ensuring that care is not only functional but also compassionate and responsive (Wu et al., 2022). Service recipients require a strong sense of attentiveness from service management, particularly in recognizing the urgency of timely service delivery and adapting to evolving service expectations. It is essential for providers to understand and anticipate changes that may lead to dissatisfaction or complaints, and to proactively address them. This ensures that services are delivered in

alignment with the operational goals of the provider while also meeting the expectations and needs of the recipients (Shortell et al., 2021). There are quality plans that encompass all departments, accompanied by ongoing cultural changes aimed at continuous improvement. Over the past two years, these efforts have demonstrated measurable progress in service quality. Furthermore, long-term strategic plans are being implemented with a strong focus on employee development and engagement (Texeira-Quiros et al., 2022) .

In establishing a strategic and systematic approach to improving service quality at Andimas Hospital in Merangin Regency, the system design phase is of paramount importance (Vassos et al., 2024). The importance of strategic planning is recognized by hospital management; however, planning is often conducted solely to fulfill immediate business requirements rather than as part of a long-term organizational strategy (Yahiaoui et al., 2022). The alignment of business needs, applications, and technology tends to be reactive rather than driven by a comprehensive organizational strategy (Hoogestraat et al., 2024). Intensive communication must be maintained between the hospital and the system developer to ensure that the hospital can clearly articulate its needs and expectations, which must be fully understood and accurately interpreted by the developer (Hammami et al., 2022). Clear boundaries must also be established and discussed between both parties to prevent future repudiation or disagreements arising from differing perceptions of the system's scope issues that often only emerge after the system has been completed and is ready for implementation (Gomez et al., 2023) .

The researchers assume that the implementation of Total Quality Management (TQM) in hospital service delivery can have a significant positive impact, provided that hospital management and human resources establish effective communication with patients. In this context, several key elements are essential, including familiarity, attentiveness, emotional calmness, and appropriate non-verbal expressions from both staff and patients. Therefore, if patient complaints regarding communication transparency persist, healthcare staff should enhance their communication patterns by fostering familiarity, attentiveness, emotional ease, and positive non-verbal cues. These improvements are crucial for achieving higher levels of patient satisfaction.

CONCLUSIONS

There is a statistically significant relationship between several Total Quality Management (TQM) components and service quality improvement. These include customer focus ($p = 0.012$), overall employee involvement ($p = 0.001$), process orientation ($p = 0.042$),

integrated systems ($p = 0.000$), strategic and systematic approaches ($p = 0.000$), continuous improvement ($p = 0.001$), fact-based decision-making ($p = 0.001$), and communication ($p = 0.001$). These findings are further supported by the observed decline in patient visits to the hospital, which may reflect deficiencies in service quality. It is recommended that hospital management implement continuous monitoring to ensure that TQM practices are effectively executed, with the aim of improving service quality and, subsequently, increasing patient visits. The implementation of TQM in hospitals carries wide-ranging implications, including enhanced service quality, increased patient satisfaction, improved operational efficiency, and overall performance enhancement. TQM enables hospitals to foster continuous improvement, reduce errors, and establish a culture of quality at all organizational levels.

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