



A Balanced Scorecard Analysis to Evaluate Consumer, Employee Satisfaction, and Internal Business Processes in dr. Kariadi Hospital

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Abstract

The hospital is a service organization for patients (consumers). Service is expected to provide comprehensive consumer desires. Previous research has not much elaborated on the balanced scorecard and analysis of the constituent factors of customer and employee satisfaction. This study aims to analyze the balanced scorecard, the constituent factors of customer and employee satisfaction in dr. Kariadi Hospital. The number samples used as many as 72 consumer respondents who use hospital services and 27 hospital employees. The research method uses a balanced scorecard and analysis of the constituent factors of customer and employee satisfaction. The analysis results show that the human resource factor still requires improvement compared to the customer factor. This study confirms that efforts to provide optimal service have been made to satisfy customers. But on the other hand, efforts to provide satisfaction to employees are still lacking; therefore, efforts are needed to provide satisfaction.

INTRODUCTION

Hospital is one of the health facilities where health efforts are carried out to realize optimal health degrees for the community by providing quality and affordable services, not just for profit. These goals can be achieved not only through sufficient and competent human resources but also work optimally according to the organization's vision and mission. Within the hospital organization, many activities are organized by various professions, including doctors, administrative staff, service personnel, and several other professions, including ATLM (Medical Laboratory Staff Analyst) and PPTD (Blood Transfusion Service Officer). Hospital functions can run if there is a comprehensive management system that starts from the strategic planning process, both long term and short term (Jiang et al., 2018). One of the services in hospitals that is very important in healing disease and restoring health is the blood transfusion service managed by the

Hospital Blood Transfusion Unit (UTDRS).

Blood transfusion service is one of the health efforts to ensure the availability of blood or blood components that are safe, easily accessible, and affordable to the community. Services provided include planning, mobilizing, and preserving blood donors, supplying blood, distributing blood, and providing blood to patients to cure disease and restore health. Blood and blood products play an important role in health care. The availability, security, and ease of access to blood and blood products must be guaranteed, following the World Health Assembly (WHA) on availability, safety, and quality of blood products, that the ability to meet their own needs for blood and blood products (self-sufficiency in the supply of blood and blood products) and their safety is one of the important national health care goals.

Several hospitals have now established UTDRS as part of hospital services, including dr Kariadi Hospital. This UTDRS was only established about 2 years ago and has never been

assessed using a balanced scorecard. UTD RSUP dr Kariadi can carry out various activities, including taking blood donors for internal needs, without being dependent on the Indonesian Red Cross Blood Transfusion Unit (UTD PMI). UTD RSUP dr Kariadi is a development of the Hospital Blood Bank (BDRS), which was previously available at the hospital. The basis for establishing the UTD (Blood Transfusion Unit) at dr. Kariadi Hospital is for the efficiency and effectiveness of blood services to provide more excess contributions for patients at dr. Kariadi Hospital and for the hospital itself. Based on the pre-survey from the management that there were several blood vacancies, the length of time for procurement and management of blood and the size of the claim for financing the demand for blood added to the reasons for establishing UTDRS at dr. Kariadi Hospital. During the operational time of UTDRS,

A balanced scorecard has a privilege in terms of a more competitive measurement because, in addition to considering financial aspects, it also considers non-financial aspects. The term balanced scorecard consists of two words: balanced and scorecard (Shrivastava & Shrivastava, 2019). The word balanced can be interpreted as a balanced performance measured from two sides, namely the financial and non-financial sides, covering the short and long term and involving internal and external parts. At the same time, the notion of a scorecard is a card used to record the score of performance results for current conditions or for planning for the future.

The balanced scorecard is part of the strategic management system formulated to effectively achieve the organization's vision and mission. The balanced scorecard provides a procedure for breaking organizational goals down into goals in various perspectives completely with clear measures. The balanced scorecard is a mechanism to make the organization focus on strategy because implementing the balanced scorecard allows all units to contribute measurably to the implementation of the organization's strategy. A balanced scorecard also provides a causal relationship between strategic goals set by the organization so that it can be seen how the balanced scorecard translates organizational goals and strategies into a set of performance benchmarks that are interconnected with one another (Hakim et al., 2021). Performance is an aspect that becomes a benchmark for the level of success of a company in achieving the targets that have been set. Performance measurement is an activity of assessing the achievement of certain targets based on orga-

nizational strategy in a certain period following the objectives or assessment of the effectiveness and efficiency of organizational activities as an evaluation of the company's performance and planning goals in the future. A performance assessment needs to be carried out objectively to increase competitive advantage through increased productivity and good service, and responsiveness to customers (Cebeci, 2018)

Many companies that adopt the balanced scorecard method show significant changes, including increasingly customer-oriented management, product quality improvement, emphasis on teamwork, and future-oriented management, so it is recommended to apply the balanced scorecard in the performance assessment of health organizations. Hospitals are public service health organizations, and the right choice for performance measurement is the balanced scorecard method, which measures performance both in terms of financial (financial) and non-financial (non-financial) because hospitals must be able to provide financial and non-financial accountability to the government area and the service user community. Evaluation performance of a company cannot only be seen from the financial side. Still, it should also be viewed from a non-financial perspective because if you only look at the financial size, you will not be able to give a real picture of the company's condition. A balanced scorecard has a privilege in terms of a more competitive performance appraisal because, in addition to considering financial aspects, it also considers non-financial aspects (Munayang et al., 2017)

One of the health organizations/government agencies that must provide financial and non-financial accountability to the government and the community is the hospital. One of the most important hospital services is the blood transfusion service, managed by the Hospital Blood Transfusion Unit (UTDRS), including dr. Kariadi Hospital, where UTDRS was only established about two years ago, and there has never been a performance assessment using the balanced scorecard method. UTDRS is a development of the BDRS (Hospital Blood Bank), which was previously available at the hospital. The basis for establishing UTD at dr. Kariadi Hospital is for the efficiency and effectiveness of blood services to provide more excess contribution for patients at dr. Kariadi Hospital and for the hospital itself.

A performance-based system is needed to improve organizational performance. Reliable performance measurement has a reliable and quality performance measurement system, so it

is necessary to measure performance that pays attention to financial and non-financial aspects to design a more comprehensive performance measurement system called the balanced scorecard. The balanced scorecard is a performance measurement method that does not only reflect on financial performance but also on non-financial performance. The non-financial aspect has received serious attention because the increase in financial performance comes from non-financial aspects. If the company is going to improve its performance, the focus of the company's attention will be on improving non-financial performance. The balanced scorecard provides a framework for management to translate the organization's mission and strategy into objectives and measures that can be viewed from four perspectives. Initially, the balanced scorecard was designed for use in the private sector, and many public organizations have adopted it, of course with modifications to suit the needs of the organization (Dyahariesti et al., 2021)

The balanced scorecard is considered suitable for public sector organizations because it emphasizes quantitative-financial and the qualitative and non-financial aspects. Most early scorecards in the public sector featured operational excellence strategies aimed at helping employees do their jobs more efficiently. The balanced scorecard method is used by companies that produce goods, and organizations that provide services, including hospitals, have also used this method (Citradika & Satrio, 2021). WHO (World Health Organization) Technical Report Series states that "hospitals are an integral part of a social and health organization with the function of providing complete, curative, preventive health services to the community, and outpatient services that reach the whole family". As an organization, hospitals must provide accountability to the government and the community. Accountability must be able to reflect financial and non-financial aspects; therefore, a method is needed to measure performance that can assess all aspects. The balanced scorecard is one method of evaluating a company's performance that can fully reflect the company covering all aspects.

It is hoped that by using the balanced scorecard, non-financial aspects are also included in the hospital's performance assessment so that performance measurement will better reflect organizational performance with better performance measurement. The difficulty of determining the strategy, one of the main problems in applying the original concept of the BSC, is the placement of a financial perspective on top. For that reason,

many public sector organizations reorganize the construction of the BSC by changing the hierarchy, with the customer perspective considered most important. Currently, there are still many weaknesses in public services by government officials, so they cannot meet the quality expected by the community. It is necessary to develop a community satisfaction index to assess service quality levels (Gao & Gurd, 2015).

Customers are all people who demand the company meet certain quality standards that will influence the company's performance; in hospitals, it can be interpreted as patients who receive services and employees as internal customers (Rahimi et al., 2018). Every patient has the right to obtain quality health services according to professional standards and standard operating procedures and obtain effective and efficient services to avoid physical and material losses. The determining factor for the success of today's health care organizations lies in how well management builds commitment, especially the performance of employees as internal customers, and how well executives and all employees at all levels emphasize the importance of patient retention (Pena et al., 2013).

The customer perspective is a perspective that measures the company's performance related to customer satisfaction, customer retention (customer retention on company products), new customer acquisition (ability to reach new customers), and customer profitability. Organizations are required to provide good service quality (service excellence). Commitment to customer-oriented service quality is a major prerequisite in supporting the success of a business. Therefore, service quality must be a serious concern for the organization's management.

Measuring customer satisfaction is difficult; the data obtained is subjective according to the respondents' answers according to their experiences. Customer expectations can be shaped by past experiences, comments from relatives, and information from the media. Satisfied customers are loyal longer, are less price-sensitive, and leave favorable comments about the company. Community satisfaction is the result of public opinion and assessment of the performance of the services provided. Measurement of customer satisfaction is closely related to product quality (goods or services). The customer perspective is a benchmark for employees as assets, users, or outputs from implementing HR (Human Resources) strategies that impact customers. This perspective describes how the organization looks in the eyes of the customer.

The balanced scorecard approach may require the performance of internal processes that are determined based on the expectations of certain external parties. The company must determine the processes and competencies in its excels and the measures to assess the performance of these processes and competencies. The analysis of the company's internal business processes is carried out through a value chain analysis. From the perspective of internal business processes, strategic goals are set in the form of improving product quality, increasing speed and quality of service, and maximizing assets optimally (Kamra et al., 2016). The internal business process perspective is a concept that integrates the innovations that the company will make to its internal processes by taking into account the current and future needs of consumers and looking for solutions to meet the needs of consumers in the future. The internal business perspective is a perspective that analyzes innovation (product design process), operation process (product manufacture and delivery), and after-sales service process (Ritchie et al., 2019).

The fourth aspect that is an element of measuring organizational performance in the balanced scorecard method is the process of growth and learning, which is a process that originates from human resources, organizational systems, and procedures. Various perspectives of growth and learning are the foundation of success for a knowledge-worker organization while still paying attention to the system and organizational factors. This perspective is a control effort to achieve superior outcomes in the three perspectives of financial, customer, and internal business processes.

Human resources must develop if the company wants prosperity, and employee knowledge must be productive to provide customer value. Employees will give their commitment if they feel an emotional bond with a company. Companies facing global competition need employees who are smart, innovative and be creative master computers, and easily adapt to changes in the business environment. Companies must pay attention to things that can reduce the company's image in the eyes of customers, preferably new employees who are not trained, do not commit, do not have the competence to answer customer questions, and do not be hired directly to deal with customers. Three categories are important in growth and learning: employee competence, technology infrastructure, and corporate culture. The Growth and Learning Perspective has strategic goals and objectives that will affect the inter-

nal business process perspective and the customer perspective (Karisa & Wainaina, 2020).

The organization's ability to learn and grow comes from three sources: employee capabilities, information system capabilities, and organizational procedures. Three key organizational growth and learning factors include employee capabilities, information systems capabilities, and organizational culture. Employee capabilities can be built by carrying out education and training for personnel and applying the knowledge and skills to work. Employee growth opportunities can be provided in the form of skills training. Training is an activity carried out to improve employees' ability in their work. One of the key factors in building this capability is employee satisfaction. Employee satisfaction can be seen in rewards, promotions, turnover, relationships with superiors and co-workers, and perceptions of their work (Rompas et al., 2019).

METHODS

The study was conducted at dr. Kariadi hospital takes a sample of 72 consumers and 27 hospital employee respondents. The strategy used in sampling is to provide questionnaires to consumers and hospital employees to fill out statements related to research questions. This study aims to analyze the Balance scorecard and the compiling factors of satisfaction for both consumers and hospital employees. The satisfaction results will be analyzed to elaborate on the organization's internal business processes. The research uses a quantitative approach that produces factor analysis to determine the factors that cause the level of customer and employee satisfaction. Factor analysis using principal component analysis (PCA) with varimax rotation and eigenvalue 1.

RESULT AND DISCUSSIONS

Customer retention analysis uses data on the number of customers analyzed in the year divided by the number of customers in the previous year. Customer retention shows that customers are loyal to the service of the blood transfusion unit. Based on data in 2020, the number of customers in the blood transfusion unit was 3,809, while in 2021, the number of customers increased to a total of 8,208 customers. Based on these data, the resulting customer retention values are:

$$\text{Consumer Retention} = \frac{\text{Total consumer in } t\text{-year}}{\text{Total consumer in } t-1\text{ year}} \times 100\%$$

$$\text{Consumer Retention} = \frac{8.208}{3.809} \times 100\% = 2.15$$

The analysis results obtained a value of 2.15, indicating that customer retention has a high value. This value indicates that the number of customers has increased from the previous year. The value of 2.5 indicates that the customer has increased by more than two times, and the services provided by the blood transfusion unit have a positive indication, meaning that the customer has experienced an increase in the number. There are no customers who leave the blood transfusion unit. The services provided at the blood transfusion unit are deemed to have met expectations, and customers do not move to another place. Based on the analysis results, it can be seen that the blood transfusion unit has succeeded in retaining customers, so there is no transfer of old customers. Based on the analysis results, efforts to maintain are considered successful because the blood transfusion service unit already has a higher number of customers than the previous year. This indicates that there is a rapid growth in the number of customers. Customer retention is associated with services that meet the criteria, and customers are satisfied with the services provided. The ability to provide optimal service is an essential aspect, so that customers feel that the blood transfusion unit has taken actions that align with expectations (Cebeci, 2018). Activities are undertaken to retain customers are essential for the blood transfusion unit to develop further in the field of excellent service.

Customer acquisition analysis relates to the activities carried out by the blood transfusion unit to acquire new customers. The comparison is done by analyzing the number of new customers compared to the total customers owned by the blood transfusion unit. The purpose of the analysis is to see the percentage growth in the number of new customers in the blood transfusion unit. In 2021 the number of subscribers is 8,208, while in 2020, the number of subscribers is 3,809, so the total number of subscribers in the last two years is 12,017. The growth in the number of customers in 2021 is 4,399. Based on the data that has been described, it can be calculated the percentage of customer acquisition of:

$$\text{Consumer Acquisition} = \frac{\text{New Consumer}}{\text{Total consumer}} \times 100\%$$

$$\text{Consumer Acquisition} = \frac{4.399}{12.017} \times 100\% = 36,6\%$$

Based on the results of the analysis, it can be seen that there is an increase in the number of customers by 36.6%, which indicates that there is a significant growth in 2021. Customer acquisition is a process of getting new customers, so

there is an increase in old customers. The results showed the acquisition of customers and a significant number of new customers in the blood transfusion unit. Activities carried out at the blood transfusion unit have provided comfort for existing customers so that there is potential for positive information for the community. This positive information develops so that there are new customers who are affected by information coming from old customers.

The activity carried out by the blood transfusion unit is an activity that aims to increase the number of customers so that customer acquisition carried out on activities from the customer perspective obtain a positive response. The results showed that the increase in new customers was carried out in 2020 and 2021. The activities carried out by the blood transfusion unit after providing optimal service gave rise to significant new customers, namely one-third of the old customers. The activities carried out by the blood transfusion unit indicate that there are efforts to develop the organization leading to customer orientation so that the efforts made are to improve service and performance to get a significant number of new customers (Gao & Gurd, 2015).

Analysis of growth and learning includes employee retention and analysis of employee satisfaction. Employee retention analysis discusses the level of transfer or departure of employees in the blood transfusion unit. The employee satisfaction index describes various work-related factors and the institution's satisfaction. Based on this description, it will be described in detail related to employee retention and satisfaction analysis.

Employee retention is the turnover of new employees and the exit of old employees. In simple terms, employee retention can be interpreted as the number of new employees leaving and entering an organization. This study is intended to measure employee retention. The lower the retention, the more comfortable the organization at work. The higher the retention, the more dynamic and organization that causes the level of turnover of employees to increase. In 2020 the number of employees was 33, and out of the blood transfusion unit, as many as 6, leaving 27 employees. In 2021, no employees left the blood transfusion unit, currently, there are 27 employees. Based on this information, employee retention can be calculated as follows:

$$\text{Employee Retention} = \frac{\text{Total Employee} - \text{Employee resignation}}{\text{Total Employee}} \times 100\%$$

$$\text{Employee Retention 2020} = \frac{33-6}{33} \times 100\% = 81.8\%$$

$$\text{Employee Retention 2021} = \frac{27-0}{27} \times 100\% = 100\%$$

Based on the results of the analysis, it can be seen that the employee retention rate in 2021 has increased when compared to 2020. The results of this study indicate that there are efforts to improve the organization to maintain the number of employees and improve the quality of the environment where they work. The results of this study indicate that the hospital's blood transfusion unit has succeeded in maintaining the number of employees so that employees have an organizational culture and environment that provides comfort in working. The level of entry and exit of employees is getting smaller; it indicates that the work location's environment makes employees to feel at home in doing their jobs (Deng et al., 2018; Shin et al., 2018; Trivellas et al., 2013). On the other hand, when the work location has discomfort, it will be marked by the increasing number of employees coming in and out.

Table 1. KMO and Bartlett's Test for Consumer

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.723
Bartlett's Test of Sphericity	Approx. Chi-Square	1582.955
	df	91
	Sig.	.000

The KMO and Bartlett's Test results in Table 1 show a value of 0.723 and a significance of 0.000, indicating that the sample has met the adequacy.

Table 2. Factor Analisis Result for Consumer

Factor	1	2
Promptness	0.031	0.848
Friendliness	-0.049	0.898
Neatness	0.877	0.065
Convenience	0.925	-0.102
Requirements	0.914	-0.045
Clarity	-0.516	0.791
Service	0.154	0.543
Responsibility	0.874	-0.001
Queue	0.838	-0.099
Overall	-0.555	0.774
Facility	-0.048	0.897
Skill	-0.179	0.866
Fairness	0.961	-0.089
Safety	0.903	-0.243

Based on the analysis results in Table 2, several factors make up the level of customer satisfaction. The level of customer satisfaction is composed of several factors related to hospital services and the ability of officers to provide services to consumers. Two main factors make up customer satisfaction with services at the hospital. The first factor is the neatness contained in the service at the hospital. The neatness factor is an important factor related to the aesthetics of the officers' services so that consumers feel optimally served when they get services. Another factor that composes is comfort and requirements that are following hospital regulations. These factors provide an essential aspect for hospital services to satisfy consumers. Another factor is responsibility and queues, which are important to ensure that consumers are served optimally. The factors of justice and work safety are essential parts for hospitals to provide services. These factors are included in the first factor that composes the level of customer satisfaction. The second factor that composes customer satisfaction is speed, friendliness, clarity of service, and services in general, facilities, and employee expertise. These factors provide an essential role for the organization, namely the hospital, to provide services that meet consumer expectations.

Table 3. KMO and Bartlett's Test for Hospital Employee

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.642
Bartlett's Test of Sphericity	Approx. Chi-Square	227.674
	df	91
	Sig.	.000

The results of the KMO and Bartlett's Test in Table 3 for hospital employees indicate a value of 0.642 and a significance of 0.000, indicating that the sample has met the adequacy.

Table 4. Factor Analysis Result for Hospital Employee

Factor	1	2	3
Basic Orientation	0.310	0.174	-0.824
Employee Needs	0.786	-0.056	-0.176
Work Satisfaction	0.548	-0.139	0.545
Proudness	0.617	0.012	0.498
Low Turn Over	-0.911	-0.156	0.106
Low Retention	-0.883	0.094	-0.022
Training	0.122	0.584	0.061
Engagement	0.655	-0.14	0.321
Motivating	-0.183	0.852	0.068
Satisfaction	-0.195	0.88	0.054
Appreciation	-0.071	0.905	0.215
Information Access	0.207	0.79	-0.101
Facility	0.345	0.368	0.265
Technology	-0.556	-0.544	0.113

Based on factor analysis in Table 4, it can be seen that several aspects generate the level of employee satisfaction. Three main factors can determine the level of employee satisfaction. The factors that make up the first level of employee satisfaction are employee needs and desires, job satisfaction, pride in working in an organization, low turnover rate, low job retention rate, employee engagement with the organization, and mastery of technology. The first factor relates to organizational and employee ties. These factors indicate aspects essential in an organization to form employee job satisfaction. The second aspect that is arranged to determine the level of employee satisfaction is motivational training and appreciation given by the organization to outstanding employees. The basic work orientation is the third aspect that composes the level of employee satisfaction.

CONCLUSION AND RECOMMENDATION

Based on the analysis results from the customer perspective, the customer growth rate from 2020 to 2021 has a very significant increase, which is 215%. The increase in customers was due to the need for blood transfusions, which gave rise to many customers. The aspect of continuous service thanks to an increase in the number of customers who access the blood transfusion unit. Overall, the analysis results indicate that the customer perspective aspects of the internal business processes of growth and learning have had satisfactory results. However, compared to

customer aspects and internal business processes, aspects of growth and learning, especially for employees, still require improvement, so this will lead to employee satisfaction.

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