

Quick Ratio Analysis in Stock of Drug Inventory in Pharmacy Services in Pharmacies

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Abstract

This study aims to analyze the financial liquidity condition of the Gembleb Farma Pharmacy, Trenggalek Regency using the Quick Ratio method. The data used includes current assets, drug inventory, and current liabilities from the financial statements for the period September 2024. The results showed that the value of current assets was IDR 45,000,000, drug inventory was IDR 15,000,000, and current liabilities were IDR 12,000,000. Based on the Quick Ratio calculation, a value of 2.5 is obtained. This value indicates that the Gembleb Farma Pharmacy has a very good ability to meet its short-term obligations without relying on drug inventory. The results of this study also show that drug inventory management in pharmacies is at an optimal level, so it does not burden cash flow. In addition, the low current liabilities reflect the pharmacy's minimal reliance on short-term debt. Surplus liquid assets provide flexibility for pharmacies to expand their business, improve services, and make investments in the future. This study concludes that the liquidity condition of Gembleb Farma Pharmacy is very healthy, as indicated by the Quick Ratio which is far above the ideal standard of 1.0

Keywords: Quick Ratio; Liquidity; Current Assets; Current Liabilities; Inventory Management

1. Introduction

Pharmacy is one of the pharmaceutical service facilities that has a strategic role in maintaining the availability of drugs to meet the needs of patients and the community (KEMENKES RI, 2020). Pharmaceutical services in pharmacies include not only the distribution and delivery of drugs, but also ensuring the quality, safety, effectiveness, and efficiency of drug use (Cipolle, RJ et al., 2012). In carrying out its role, drug stock management in pharmacies is the main key to the success of optimal service (Mukherjee, T. et al., 2019). Poorly managed drug supplies can have an impact on decreasing the quality of service, financial losses, and patient disappointment due to drugs not being available when needed (Hasan, MR, & Hossain, MM, 2021).

The development of the pharmaceutical and business world, drug stock management must be carried out systematically, especially in terms of financial management (Herliana, T., & Winoto, A., 2019). One of the main indicators in measuring the ability of pharmacies to manage drug inventory is through liquidity ratios, including the Quick Ratio (Brigham, EF, & Houston, JF 2019). The Quick Ratio or quick ratio is a financial analysis tool that measures the ability of a company, in this case a pharmacy, to meet its short-term obligations with current assets owned, without taking into account inventory (Ross, SA et al., 2020). This ratio inventory is often considered less liquid than other current assets, such as cash or receivables (Weygandt, JJ, 2018). The application of the Quick Ratio to pharmacies can help evaluate whether drug stock management is efficient and financially healthy (Koh, SCL et al., 2006).

The context of pharmaceutical services in pharmacies has a major challenge in maintaining a balance between drug availability and stock efficiency (Lu, H., & Shang, C., 2017). Pharmacies must ensure that the drugs provided are sufficient for patient needs at all times, but on the other hand, excessive inventory can lead to waste, the risk of expired drugs, and tie up large amounts of capital (Kemenkes RI, 2021). This is where the role of Quick Ratio analysis becomes crucial, because this indicator helps evaluate the extent to which drug stock availability affects pharmacy liquidity in the short term (Pratama, RA, & Setyawan, S. 2018).

Pharmacies still face challenges in managing optimal drug stock. Issues such as overstock, stockout, and expired drugs are often recurring problems (Putra, RI, & Sari, N., 2020). Excess stock causes large amounts of working capital to be held back, which can hamper overall pharmacy operations (Zikmund, WG, 2019). Meanwhile, running

out of stock can lead to customer dissatisfaction, reduce the reputation of the pharmacy, and even lose revenue opportunities (Porter, ME, 2008). Analysis of financial aspects, such as the use of Quick Ratio, can provide a clearer picture of the efficiency of drug stock management in pharmacies (Ghazali, I., & Ratmono, D. 2020).

The application of financial analysis in pharmacy management has not been fully implemented by most pharmacy owners in Indonesia (Hutabarat, M. 2019). Some pharmacies may only focus on operational aspects such as drug sales and procurement, but ignore the importance of liquidity evaluation in stock management (Yulianto, H., & Indiryani, M., 2018). Lack of understanding of financial indicators, including the Quick Ratio, makes stock management tend to be carried out conventionally without clear and measurable parameters (Pandey, IM, 2018). This study is relevant to provide guidance and insight into the importance of the Quick Ratio in assessing pharmacy liquidity and managing drug stock more effectively (Ali, HF, & Khan, AS 2019).

The increasing number of pharmacies in Indonesia which is increasingly competitive also demands innovation in financial management and drug stock (Widodo, S., & Astuti, D. 2020). Based on data from the Indonesian Ministry of Health, the growth of pharmacies in Indonesia has increased significantly along with the public's need for easier access to drugs (Moekijat, 2019). Not all pharmacies are able to survive in the long term due to financial problems, including inefficiencies in inventory management (Noer, H., & Nugroho, D. 2020). This confirms that Quick Ratio analysis can be one solution in facing these challenges (Zimmerer, TW, & Scarborough, NM, 2015).

The implementation of information technology systems in pharmacies today has provided great opportunities in managing drug stocks more accurately and in real-time (Stevenson, WJ, 2018). The use of technology such as inventory management systems can help pharmacies calculate liquidity ratios more quickly and efficiently (Paramitah, R., & Kusuma, D., 2021). Integrating Quick Ratio analysis with modern technology will be a step forward in ensuring better drug stock management (Suharto, A., & Ramawati, E., 2018).

This study is also relevant to the principles of pharmaceutical economics, which emphasize efficiency and effectiveness in the use of resources in the pharmaceutical field (Handoko, TH, 2019). Good drug stock management not only supports the financial sustainability of pharmacies, but also supports broader health service goals, namely ensuring adequate access to drugs for the community (Kaplan, RS, & Norton, DP 2004). By using the Quick Ratio, pharmacies can find out the extent to which drug stock affects financial conditions, so that decisions related to procurement, sales, and stock management can be made more wisely (Vitasari, R., & Hidayat, T. 2018).

This research is expected to provide real benefits for pharmacy owners, pharmacists, and related parties in managing drug stocks and maintaining the financial health of pharmacies (Kurniawan, A., & Wijaya, H., 2021). By understanding and implementing Quick Ratio analysis, pharmacies can achieve an optimal balance between stock availability and financial liquidity, thereby increasing the competitiveness and sustainability of the pharmacy business amidst fierce competition.

2. Methodology

This study was conducted in September 2024 at Gembleb Farma Pharmacy, Trenggalek Regency, with the aim of analyzing the efficiency of drug stock management through the calculation of the Quick Ratio as an indicator of short-term financial liquidity. The location was selected purposively, because Gembleb Farma Pharmacy met the criteria as a research location that had adequate financial data, an ongoing drug stock management system, and competent pharmaceutical personnel. With a quantitative descriptive approach, this study focuses on collecting financial figures that are analyzed systematically to provide a factual picture of the financial condition and management of drug inventory at the pharmacy.

Data collection in this study was conducted using two main techniques, namely interviews and documentation. Interviews were conducted directly with pharmacy owners, pharmacy managers, and pharmaceutical personnel responsible for the procurement and management of drug stocks. The interviews aimed to obtain in-depth information related to the drug stock management system, drug procurement procedures, obstacles faced in maintaining stock availability, and the pharmacy's understanding of financial indicators such as the Quick Ratio. Interviews used structured question guidelines so that the data collected remained consistent and in accordance with the research objectives. The documentation technique focused on collecting financial data in the form of records of income and expenses during the research period, financial balance sheets, and drug stock inventory reports. The data includes components of current assets, short-term liabilities, and drug inventory values, which are then used as the basis for calculating the Quick Ratio.

The Quick Ratio calculation formula used in this study is:

$$\text{QuickRatio} = \frac{\text{AsetLancar} - \text{Persediaan}}{\text{KewajibanLancar}} \quad (1)$$

Quick Ratio chosen because this indicator is able to describe the pharmacy's ability to meet its short-term obligations without taking into account the value of inventory. Drug stocks often take time to be converted into cash, so they cannot be fully relied on as liquid current assets. Thus, the results of the Quick Ratio calculation will provide a more accurate picture of the pharmacy's financial liquidity.

The research variables used consist of independent variables and dependent variables. The independent variable in this study is the management of drug stock in pharmacies, which includes the quantity of inventory, frequency of procurement, and effectiveness of drug stock distribution. The dependent variable is the Quick Ratio as an indicator of the pharmacy's financial liquidity. These two variables are interrelated, where the efficiency of drug stock management will have an impact on the Quick Ratio value and, ultimately, the overall liquidity condition of the pharmacy.

Data analysis techniques are carried out through several systematic stages. The first stage is data collection through interviews and financial documentation. The collected data is then processed and calculated using the Quick Ratio formula to obtain the pharmacy's financial liquidity value. In the next stage, the processed data is analyzed descriptively to interpret the calculation results and evaluate the pharmacy's financial condition. The results of the Quick Ratio calculation will be compared with general liquidity standards, where the ideal ratio is in the range of 1: 1 or more. If the Quick Ratio value obtained is low, this can be an indication of inefficiency in drug stock management, such as excessive inventory or less than optimal cash flow. The final stage in data analysis is to draw conclusions from the research results, which are compiled systematically and comprehensively to provide a clear picture of the effectiveness of drug stock management at Gembleb Farma Pharmacy and its impact on financial liquidity.

To ensure the validity of the data, this study applied triangulation of methods and sources. Interview data was compared with financial documentation data to verify the consistency of the information. In addition, validation was carried out by reconfirming the data with the pharmacy to ensure the accuracy and validity of the information used in the study. The research instruments used included structured interview guidelines, data documentation sheets to record figures from financial reports, and tools such as calculators and Excel spreadsheets to perform calculations and data analysis.

In conducting this research, researchers uphold research ethics, such as maintaining the confidentiality of pharmacy data, requesting approval before data collection, and ensuring that the data obtained is used solely for academic purposes. This research is expected to produce useful outputs, both for Gembleb Farma Pharmacy and related parties. The results of this study will provide a comprehensive picture of the effectiveness of drug stock management and the Quick Ratio value as an indicator of the pharmacy's financial condition. In addition, the findings of this study can also be the basis for recommendations for pharmacy owners to optimize drug inventory management in order to improve financial efficiency and ensure the sustainability of pharmacy operations.

With this structured and systematic method, the study will produce valid, accurate, and relevant analysis in evaluating drug stock management and liquidity conditions at Gembleb Farma Pharmacy. The entire research process, from data collection, analysis, to interpretation of results, is carefully designed to provide significant contributions to pharmaceutical management, especially in pharmacy financial management. This study is expected to be a practical reference in improving pharmacy performance in terms of drug stock management and better financial planning in the future.

3. Results and Discussion

This study aims to analyze the financial liquidity conditions of Gembleb Farma Pharmacy, Trenggalek Regency using the Quick Ratio calculation. The financial data collected includes current assets, drug inventory, and current liabilities, which are the main components in the Quick Ratio calculation. The data was obtained from the pharmacy's financial report documentation for the period September 2024. The results of processing the collected financial data can be seen in Table 1 below:

Table 1. financial data

Financial Components	Value (Rp)
Current assets	45,000,000

Drug Supplies	15,000,000
Current Liabilities	12,000,000

From the data above, the Quick Ratio calculation is done using the following formula:

$$\text{Quick Ratio} = \frac{45.000.000 - 15.000.000}{12.000.000}$$

$$\text{Quick Ratio} = \frac{30.000.000}{12.000.000} = 2,5 \quad (2)$$

Interpretation of Quick Ratio Results

Based on these calculations, the Quick Ratio of Gembleb Farma Pharmacy during the research period showed a value of 2.5. This figure indicates that the current assets owned by the pharmacy, after deducting inventory, can cover current liabilities by 2.5 times. The ideal standard for Quick Ratio is generally 1.0 or more, which means that the company or pharmacy has sufficient ability to pay short-term liabilities with current assets that are easily converted into cash. With a result of 2.5, the liquidity condition of Gembleb Farma Pharmacy can be said to be very good, because the Quick Ratio value obtained is far above the minimum standard value.

This value indicates that the pharmacy has sufficient liquid asset reserves to pay all short-term liabilities without relying on inventory value. The context of pharmacy financial management, considering that drug inventory often cannot be immediately converted into cash. Drug inventory takes time to sell or distribute, so it cannot be fully relied on as a source of quick liquidity.

Financial Condition Analysis of Gembleb Farma Pharmacy

The high Quick Ratio calculation results reflect efficiency in managing current assets and managing pharmacy liabilities. With current assets of Rp 45,000,000 and current liabilities of Rp 12,000,000, the pharmacy has a significant excess of current assets after deducting the value of inventory. This condition provides several positive indications, including:

1. Ability to Pay Obligations on Time. With a Quick Ratio value of 2.5, the pharmacy has a very good ability to pay short-term obligations, such as debt payments to drug suppliers, employee salaries, and other operational costs. This reflects healthy and effective financial management.
2. Maintained Inventory Management. The drug inventory value of Rp 15,000,000 shows that the pharmacy maintains drug stock at a reasonable level. Inventory is not excessive, so it does not disrupt the pharmacy's cash flow. Good inventory management helps prevent the risk of loss due to expired drugs or unsold dead stock.
3. Balance Between Assets and Liabilities. The pharmacy's current assets after deducting the inventory value still reach Rp30,000,000, while current liabilities are only Rp12,000,000. This balance shows that the pharmacy has excess liquid assets that can be used for other purposes, such as investment in business development or service improvement.
4. Low Dependence on Short-Term Debt. Relatively small current liabilities compared to current assets indicate that Apotek Gembleb Farma has low dependence on short-term debt. This condition reduces financial risk and increases flexibility in managing pharmacy operations.

Relationship of Results to Drug Stock Management

The results of this study also reflect the efficiency in managing drug stock at Gembleb Farma Pharmacy. Although the drug inventory reached Rp 15,000,000, this value did not interfere with the pharmacy's ability to meet short-term obligations. This shows that drug procurement is carried out with good planning, so that the available drug stock is in accordance with patient needs and market demand.

Efficient drug stock management not only supports the financial condition of the pharmacy, but also ensures the availability of drugs needed by the community. Optimal inventory helps pharmacies avoid the risk of excess stock that can cause losses, as well as ensuring excellent service to customers. Thus, good drug stock management directly contributes to healthy liquidity conditions, as reflected in the Quick Ratio value of 2.5.

Implications of Research Results

Based on the research results, there are several practical implications that can be applied by Gembleb Farma Pharmacy:

1. Increased Cash Management Efficiency. With good liquidity conditions, pharmacies can utilize excess current assets for investment, such as improving pharmacy information system technology, expanding the types of drugs provided, or opening new branches.

2. **Maintaining Optimal Inventory Levels.** Pharmacies need to maintain efficient drug inventory management to maintain a balance between customer demand and stock availability. Regular inventory evaluation will help prevent overstock or understock.
3. **Managing Liabilities Wisely.** Although the current current liabilities are low, pharmacies must still manage liabilities well, including paying debts on time to maintain good relationships with suppliers and partners.

Business Development Strategy. The surplus liquidity owned by the pharmacy can be allocated for long-term business development strategies, such as improving clinical pharmacy services, health promotion to the community, or educational programs related to rational drug use.

4. Conclusion and Recommendations

Based on the research results, the Quick Ratio value of 2.5 indicates that Apotek Gembleb Farma has a very good liquidity condition. The pharmacy is able to meet its short-term obligations without relying on the value of drug inventory. This condition reflects healthy financial management, efficiency in managing drug stock, and a balance between assets and liabilities. By maintaining good management, Apotek Gembleb Farma can continue to improve financial performance and provide optimal service to customers.

Further Study

Future studies and policy initiatives should build upon these findings to ensure that artificial intelligence is utilised ethically and efficiently for the benefit of society.

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