



Financial Early Warning System Implementation Strategy for Clinics

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Abstract

Background. Clinics in the healthcare business face various challenges, especially in urban areas where competition with new clinics and large hospitals is intensifying. Continuously changing government regulations, such as accreditation requirements, economic crises, and pandemics further increase operational burdens.

Aims. High patient expectations for service quality and pressure from the ASEAN Economic Community (AEC) compel clinics to adapt and survive. To address these challenges, clinics need an Early Warning System (EWS) integrated within the Clinic's Early Warning System Framework (CEWSF).

Methods. The research methods used are *descriptive survey* and methods *Explanatory Survey*.

Result. CEWSF maps the risks faced by clinics, including financial, health, legal, operational, reputational, and environmental risks, all integrated into a digital information system. However, many clinics, especially smaller ones, do not yet have a Financial Early Warning System (FEWS) to identify and prevent risks. The absence of FEWS leads to slow responses to financial issues.

Conclusion. Implementing technology-based EWS, such as data analysis and artificial intelligence, is crucial for maintaining clinics' operational continuity.

Implementation. While some countries have adopted FEWS, Indonesia has yet to have hospitals that comprehensively embrace this framework.

Keywords: Financial, Early Warning System Strategy, Clinics

INTRODUCTION

Background

Clinics, as entities in the healthcare business, are not exempt from the challenges faced by the business world in general. Externally, competition with new clinics, large hospitals, or technology-based healthcare services is increasing, especially in urban areas. Clinics also have to contend with government regulatory challenges that are continuously changing, such as accreditation requirements and other administrative burdens. Additionally, economic crises or pandemics can lead to a reduction in patient visits while increasing operational costs. Patients' rising expectations for the quality of services, coupled with pressures from a free market like

the ASEAN Economic Community (AEC), compel local clinics to adapt to survive amid these pressures and competition (Deventa et al., 2013).

Regarding the ability to face these internal and external pressures, clinics require various Early Warning Systems (EWS) integrated within the Clinic's Early Warning System Framework (CEWSF). The CEWSF is a comprehensive framework for mapping risks (financial risks, patient health and safety risks, legal and regulatory risks, operational risks, reputational risks, environmental risks, and natural disaster risks) across all systems operating within the clinic entity, which is then integrated into a modern digital clinic information system (Marcinto et al., 2014).

Many healthcare clinics, tiny and medium-sized ones still developing, do not yet have a Financial Early Warning System (FEWS) to identify and prevent the risks above. This absence is due to a lack of technological resources, minimal awareness of the importance of data-based risk management, or limited funds for software and supporting technologies investments. The lack of FEWS in clinics leads to a slow response to emerging issues such as declining revenue, delayed claims payments, and spikes in operational burdens due to emergencies like pandemics. The role of FEWS is crucial to help clinics monitor financial crisis indicators in real time (such as cash flow, service utilization, and patient complaints), allowing for preventive action before problems escalate (Akansa et al, 2016).

Implementing technology-based EWS, including data analysis and artificial intelligence, can be significantly helpful in maintaining the operational continuity of clinics in a challenging era. Several hospitals and institutions worldwide have implemented FEWS to monitor and manage financial risks. In Turkey, the Hospital Early Warning System (HEWS) uses data mining for early detection of financial risks in hospitals. The Department of Health in New Jersey, USA, has implemented a program to enhance the transparency of financial reporting through early warning systems. Research at the Bucharest University of Economic Studies in Romania has created a FEWS model to support data-driven decision-making. This system shows how technology can help prevent financial problems that could disrupt patient care and operational sustainability. In Indonesia, however, no hospital has comprehensively adopted the FEWS framework (Apostolie & Donohue, 2015).

LITERATURE REVIEW

Concepts and theories.

In the health industry, knowledge about the financial condition of a business entity is essential. This is because selling products in the form of health services requires various supporting factors (multifactorial) that support the implementation of these service activities. The clinic bears the burden of considerable capital needs because these supporting factors require funds in the form of *fixed costs and variable costs*. Meanwhile, threats to the existence of clinics in the form of external and internal pressure can create losses that the clinic must bear. This pressure can cause clinics to leave business and close their service activities if anticipatory actions are not followed up with definitive actions related to emerging threats (Deventa, 2017).

Clinics can make efforts to optimize profits and can even prevent losses. One of the factors that can guide so that the sustainability of clinic activities continues to run even more advanced and developed is evidence of clinic health financially/financially. Financial evidence is information and financial signals that can show whether the clinic remains healthy while running its business. The latest financial information system (*Financial Early Warning System*) is a financial indicator that provides important signals that indicate which managerial activities are threatened and must be corrected as soon as possible. This system can also prove that the clinic is always in a condition of having assets and capital strength that it has in excess of the total cost at all times (Brookson, 1998).

Signal Theory.

Signaling Theory shows that a company has positive signs about its internal conditions, which ensure that the company has high effectiveness and efficiency and is profitable so that it can attract the interest of potential investors. According to Scott (2000), "a signal is an action taken by a high-type manager that would not be rational if that manager was low-type." So that the company's ability to be conveyed through financial statements must show an increase in the company's income. The theory concludes that if a company has a sound, efficient control system accompanied by a good information system, all stakeholders in the company get to know the health conditions of the company.

Accounting Reports

Financial *analysis* is the use of financial statements to analyze the position and financial performance of the clinic and assess the future performance of the clinic. In summary, financial analysis activities can be aimed at the following considerations:

A. Orientation to the future.

1. Does the clinic have enough resources to succeed and grow?
2. Does the clinic have the resources to develop new services?

B. Assessment of the clinic's track record and ability to produce the expected financial performance of the clinic.

1. How strong is the clinic's financial position?
2. How profitable is the clinic?
3. Is the clinic's profit in line with analysts' forecasts?
4. Why is the clinic not meeting or exceeding expectations?

Research Hypothesis

Implementation of FEWS can be applied in any form of clinical healthcare, and it has many benefits in guiding clinic managers for further business development, so the strategies should be chosen for the Financial Clinical Early Warning System.

METHODS

The research methods used are descriptive surveys and an Explanatory Survey. This study's investigation type is accounting implementation, which maximizes the utility of financial reports for early warning signals. The sample case used in this study covers all the monetary aspects of The Clinic Faculty of Medicine, with additional operational workflow from clinical staff.

This research was conducted at the Cirebon Clinic to obtain primary and secondary data with the permission of the Clinic owner. This clinic was chosen because it has been operating for a long time but has experienced stagnation in development. Currently, the Clinic is carrying out a comprehensive overhaul of the physical building and existing management, as well as digitization of the accounting system and medical records using digital technology *Mobile*.

This clinic has gone through external pressure due to the pandemic and the validity period of BPJS. However, it managed to get through these difficult periods and still stand to

carry out services, even though it has to be efficient and increase effectiveness. Many Customers have received services and made an unforgettable impression, such as the success of the quintuplets pregnancy program (AIUEO), which went viral on social media in 2016.

DISCUSSION

From the preliminary research at this clinic, a proposal for solving the problem was obtained to be formulated in the strategy for implementing the financial early warning system: The three major parts of proper financial analysis for a clinic are (Coleman, 2012)

1. Profitability analysis
2. Risk analysis
3. Analysis of sources and use of funds.

Profitability analysis evaluates the clinic's return on investment. It focuses on the clinic's resources and profitability levels, identifying and measuring the impact of various profitability triggers.

Risk analysis evaluates the clinic's ability to meet its commitments by assessing its solvency and liquidity in line with the variation in profits. Risk is an important part of creditors, so risk analysis is important for equity analysis, both for the reliability and durability of clinical performance and for estimating the cost of clinical capital (Dowwod, 2016).

The analysis of the source and use of funds evaluates how the clinic obtains funds and how to use them. The risk analysis provides insights into the implications of future clinical funding.

The accountant prepares and presents the financial report. The clinic manager is responsible for a comprehensive and critical analysis of the entire content of the financial report so that conclusions and recommendations can be formulated after assessing the clinic's financial performance. These recommendations are supportive in decision-making so that no point of view of the clinic's business is missed, which can impact the emergence of problems in the future.

The clinic's financial statements record the activities that the clinic has carried out in a certain period. These activities are recorded in the form of rupiah currency figures. The numbers in the financial statements become more meaningful when one component compares with another or compares one financial statement with another. From this comparison, it can finally be concluded that the clinic's financial position for a certain period and the performance

of the clinic's management in that period can be measured. This comparison is known as financial ratio analysis. According to James C. Van Horne, financial ratios are in the form of indicators/indices obtained by dividing one number by another so that this financial ratio will be used to evaluate the financial condition and performance of the clinic. From the results of this financial ratio, it will be seen that the clinic's health condition is good.

In the Clinical Financial Early Warning System (CFEWS) implementation strategy, the relevant financial instruments used as indicators are (Dawood, 2016).

1. Cash Flow Analysis

- a. **Negative Operating Cash Flow:** If the cash flow from operating activities is consistently negative, this indicates that the clinic cannot make enough money from its primary services.
- b. **Cash Flow to Debt:** The ratio of operating cash flow to debt obligations indicates the ability to pay debt. A low ratio indicates financial risk.
- c. **Burn Rate:** Measures the rate at which a clinic burns cash reserves for operations. A high burn rate indicates liquidity risk.

2. Profit and Loss Indicator

- a. **Operating Profit Margin:** A significant decrease in operating profit margin indicates a decrease in operating efficiency.
- b. **Operating Expense to Revenue Ratio:** Expenses that continue to increase relative to revenue indicate poor operational efficiency.
- c. **Consistent Revenue Decline:** If the report shows a downward trend in revenue from key services, such as the cost of childbirth or other health services, this could be a sign of a potential crisis.

3. Liquidity Ratio

- a. **Current Ratio:** Measures the ability of a clinic to pay off short-term liabilities with current assets. A value below 1 indicates a liquidity problem.
- b. **Quick Ratio:** The variation is tighter than the current ratio, excluding inventory, so it better reflects actual liquidity.
- c. **Cash Ratio:** Measures only cash and cash equivalents to current liabilities. A low ratio indicates a short-term risk of failure.

4. Leverage Ratio

- a. **Debt-to-Equity Ratio:** A high debt-to-equity ratio indicates financial risk due to reliance on loans.
- b. **Interest Coverage Ratio:** The ability of a clinic to pay interest on debt from operating profits. A low score (<1) indicates a risk of default.

5. Receivables Analysis

- a. **Receivables to Revenue Ratio:** An increase in receivables to revenue indicates a problem with managing payments by patients or insurance partners.
- b. **Aging Schedule Receivables:** Receivables that are too long delayed indicate cash flow risk.

6. Special Indicators for Maternity Clinics

- a. **Bed Utilization Ratio:** The bed or delivery room utilization rate decline reflects a lack of service demand.
- b. **Staff Expense to Revenue Ratio:** An increased labor load without an increase in income can lead to financial stress.
- c. **Medical Device Usage Ratio:** Efficiency in using medical devices (e.g., ultrasound, delivery devices) to their capacity.

7. Trend Analysis in Accounting Reports

- a. **Inefficient Spending Trends:** Fixed cost increases such as rent, electricity, or appliance maintenance without an increase in revenue.
- b. **Non-yielding investments:** Expenditures on fixed assets that do not generate projected income.
- c. **Asset Impairment:** Significant depreciation of assets without a replacement plan.

Application of Indicators in CFEWS

1. **Regular Monitoring:** The clinic's financial statements (balance sheet, income statement, cash flow) should be audited regularly to track the above indicators.
2. **Risk Threshold:** Set a threshold for indicators such as the current ratio or debt-to-equity ratio that, if exceeded, triggers an early warning.
3. **Comparative Analysis:** Compare the performance of the clinic with industry benchmarks or other clinics to detect anomalies.
4. **Financial Dashboard:** Use an automated system to integrate financial report data into dashboards that provide real-time risk signals.

The liquidity, leverage, operational efficiency, and cash flow indicators mentioned above provide accurate data to monitor clinics' financial health. These indicators are elements of the CFEWS Framework in detecting early signs of a financial crisis and warning signs to take immediate mitigation measures before the crisis worsens.

This study proposes implementing a financial early warning system focusing on three primary analyses: profitability, risk, and sources and uses of funds. Profitability analysis evaluates the clinic's return on investment, while risk analysis assesses its ability to meet its financial obligations. Analysis of sources and uses of funds examines how the clinic acquires and utilizes funds, providing insights into future funding implications. Clinic managers are responsible for comprehensive analysis of financial statements to formulate conclusions and recommendations that support strategic decision-making.

In implementing the Clinical Financial Early Warning System (CFEWS), several financial indicators serve as warning signals. These indicators include cash flow analysis, profit and loss indicators, liquidity ratios, leverage ratios, receivables analysis, indicators specific to maternity clinics, and trend analysis in accounting reports. Routine monitoring of these indicators, establishing risk thresholds, performance benchmarking, and automated financial dashboards can aid in detecting early signs of economic crises. This approach allows for mitigation measures to be taken before financial issues escalate.

CONCLUSIONS

1. The implementation strategy of the Financial Early Warning System for clinics is a design that is very beneficial for accompanying clinic operationalization by providing signals/warnings that are very useful for management in decision-making.
2. Each signal that becomes a priority will be the focus that must be immediately followed up by all departments, including the marketing department, to conduct market interventions by determining marketing strategies and utilizing digital marketing.
3. The Clinical Financial Early Warning System (CFEW) is one strategy for implementing control over various aspects of clinic efficiency and effectiveness by using various financial ratios available in the clinic's accounting system.

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