Financial Performance Information System Using Economic Value Added Method

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ABSTRACT

In the current era of globalization, information is needed in a management organization. Most companies prefer computerized information systems because they simplify performance management. The rapid development of today's technology is also very useful and supports all aspects of life, especially in managing accounting and financial information systems, becoming a financial analysis of a company as a benchmark in assessing company performance. At the place where this research was carried out, there was no financial data to measure financial management performance. Become a reference in evaluating financial reports to assess financial performance in this study. Responding to these problems, it can be formulated to design a financial performance information system by applying the web-based EVA (Economic Value Added) method to assess whether a company's financial performance measurement influences growth or decline for decision makers related to financial management and investors and provide results to company stakeholders as an evaluation value of financial management. The end result of this research is the EVA value for the company is Rp. 4,267,398,060. And this value can be used as an evaluation of management at the research site.

Keywords: Finance Information System, Economic Value Added, Accountancy, Financial, Investor

INTRODUCTION

In the current era of globalization, information is needed in managing an organization. Information is a result that can give meaning to its users after data processing. Information plays an important role in planning, controlling and making management decisions. Many companies, both large and still developing, use computer-based information systems to create convenience in managing the company (Hadiyat, 2020). An information system is a system within an organization that includes needs in terms of processing data transactions, supporting operations, being able to represent management, as a strategic function of the organization and in organizational decision making (Zufria, Putri, & Ritonga, 2022). Financial performance is a way of measuring financial health in a company or organization. This assessment of financial performance works as a historical record in improving the company's performance in the future (Suwintana, Wicaksana, Suarta, & Sudiadnyani, 2022). Financial information systems can be used in many companies for functions such as business planning or management, production, human resources, finance and other processes, so that they are based on business activities (Rahmansyah & Darwis, 2020). The impact of implementing information systems in companies is that they can increase the efficiency and effectiveness of the business processes implemented and management decision making (Siregar & Nasution, 2020).

In addition, financial information systems can help users carry out financial management tasks efficiently and create reports both digital and printable. Financial reports are important information resources for companies that identify plans and future steps so that company goals can be achieved.

When calculating financial reports using an information system, it can increase processing time efficiency. The system automation process processes what the user enters automatically to reduce data
processing errors by the user (Dwi, Fatmawati, & others, 2020). As well as in the system there is financial data from the company which will be a reference to determine the level of success in terms of cash income from the company within the specified time. The classification system that is applied in managing financial statements and other data is a management information system. Financial reports are important in the process of financial reporting which includes balance sheets, profit and loss, etc. (Tondang & Nasution, 2022). Using this method can help companies manage their data, files, reports and more. In fact, it will help researchers a lot.

At this research location, there is no financial data to measure the performance of financial management as well as an assessment of company stakeholders on the rise or fall of the company being run, and there is no application of website-based digital calculations at this research location. To overcome these problems, of course, a management information system model that focuses on processing financial reports can be used. To overcome these problems, of course, a management information system model that focuses on processing financial reports can be used (Margaretha & Nababan, 2020).

The purpose of this research is to build a web-based accounting and financial management information system using the EVA (Economic Value Added) method to make it easier for finance employees to calculate income and expenses using the system and make financial reports.

**LITERATURE REVIEW**

In the previous research conducted by Happy Anita Margaretha and Marlince NK Nababan in 2020 entitled Design of a Web-Based Financial Management Information System Case Study of PT. Eternal Self-Help Works. In this research, the problem that occurs is that the business process for recapitulating company financial statements which is still done manually can cause problems, namely data loss or human errors occur during calculations. To overcome this problem, a management information system model is used that focuses on managing financial reports (Margaretha & Nababan, 2020).

Furthermore, the previous research was conducted by Reyhannisa Erico Dwi Ramadhana and Azizah Fatmawati in 2020 entitled Financial Management Information Systems at Adh-Dhuha Islamic Boarding Schools. In this research, the problem that occurs is that several companies already have their own financial information system, but many still use manual systems, one of which is at this adh-dhuha Islamic boarding school. To overcome these problems, a financial management information system was built at the Adh-Dhuha Islamic boarding school with financial recording features, searching for and printing financial reports and processing report requests (Dwi et al., 2020).

In previous research conducted by Happy and Reyhannisa with a related title, namely the Financial Management Information System. In Happy and Reyhannisa's research, they only focused on the financial management process without using methods. Therefore the authors add the EVA (Economic Value Added) method to calculate the performance value of the foundation's financial management to assist in making policy decisions regarding the foundation.

**METHOD**

The research location was carried out at the Medan Minhajus Sunnah Foundation and the time needed to collect information regarding the foundation and collect data for the application of the methods used in this study was carried out in the period October 2022 - December 2022.

The research method in data collection was carried out quantitatively descriptive through 2 stages, namely (Suendri, 2019):

**Interview**

Data collection was carried out through interview procedures with parties directly related to the company's financial processes.

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Literature review

A literature search or heritage study is carried out to obtain theories that support continuous research.

The EVA (Economic Value Added) method is a tool for measuring business performance. If EVA is greater than zero, it means that the company has created value or wealth for shareholders, but if EVA is negative, it will reduce the value of the company. The advantage of this method compared to other methods is that the EVA method can be used independently without the need to compare data according to company standards or data from other companies. Therefore, financial performance, when measured from an EVA perspective, can reflect the level of company risk and help managers to make better investment decisions (Hamzah & Awaliyah, 2020).

The technique of analyzing financial report data in this study uses Economic Value Added (EVA), the following are the calculation steps:

**Calculate NOPAT (Net Operating Profit After Tax)**

\[ NOPAT = EBIT - TAX \]  

Exp. :

NOPAT = Net Operating Profit After Tax  

EBIT = Earnings Before Interest and Taxes  

**Calculate IC (Invested Capital)**

\[ IC = Total \text{ Debt} \& \text{ Equity} - \text{ Short Term Debt} \]  

**Calculate WACC (Weighted Average Cost of Cap)**

\[ WACC = [(D \times rd)(1 - Tax) + (E \times re)] \]  

Capital level (D) = \[ \frac{Total \text{ debt}}{Total \text{ debt} \& \text{ Equity}} \times 100\% \]  

Cost Of Debt (rd) = \[ \frac{Interest \text{ expense}}{Total \text{ Debt}} \times 100\% \]  

Tax = \[ \frac{Tax \text{ Expense}}{Net \text{ profit before tax}} \times 100\% \]  

Level of Capital and Equity (E) = \[ \frac{Total \text{ Equity}}{Total \text{ Debt} \& \text{ Equity}} \times 100\% \]  

Cost of Equity (re) = \[ \frac{Net \text{ Profit after Tax}}{Total \text{ Equity}} \times 100\% \]  

**Calculate CC (Capital Charge)**

\[ CC = WACC \times IC \]  

**Calculate EVA (Economic Value Added)**

\[ EVA = NOPAT - CC \]
RESULT

Data Analysis
Data analysis is the process of searching for and collecting data obtained systematically, then organizing them into several categories, dividing them into units, synthesizing them, compiling them into models, choosing which ones are important to study, and drawing conclusions easily understood by oneself and others (Sidiq, Choiri, & Mujahidin, 2019). The data obtained from the research site are:

<table>
<thead>
<tr>
<th>Data</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Long Term Debt</td>
<td>Rp. 214,242,733</td>
</tr>
<tr>
<td>Total Short Term Debt</td>
<td>Rp. 4,190,886,045</td>
</tr>
<tr>
<td>Equity (Capital)</td>
<td>Rp. 90,444,757</td>
</tr>
<tr>
<td>Total Debt</td>
<td>Rp. 4,405,128,778</td>
</tr>
<tr>
<td>Profit</td>
<td>Rp. 4,578,179,300</td>
</tr>
<tr>
<td>Interest expense</td>
<td>Rp. 0</td>
</tr>
<tr>
<td>Tax</td>
<td>Rp. 0</td>
</tr>
</tbody>
</table>

Table 2 EV A Score Result

<table>
<thead>
<tr>
<th>Data</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>NOPAT</td>
<td>4,578,179,300</td>
</tr>
<tr>
<td>Invested Capital (IC)</td>
<td>304,687,490</td>
</tr>
<tr>
<td>WACC</td>
<td>1.02</td>
</tr>
<tr>
<td>Capital Charge (CC)</td>
<td>310,781,240</td>
</tr>
<tr>
<td>Economic Value Added (EVA)</td>
<td>4,267,398,060</td>
</tr>
</tbody>
</table>

Flowchart
Flowchart is a flowchart to describe the stages in solving a problem by representing certain symbols that are easy to understand and easy to use (Syamsiah, 2019). A flowchart is also a logical flowchart that describes the flow of a program or system process (Cipta, Hasugian, & Ikhwan, 2017).
Unified Modeling Language (UML) is a standard language that is widely used in the industry to define requirements, analyze, design, and describe architectures in object-oriented programming. UML is a visualization language for modeling and communicating systems using diagrams and text. The use case diagram in the attached text is a behavior model of the information system for the task (MEISELLA, 2019).

Real modeling is used to simplify complex problems so that they are easier to learn and understand (Choldun & others, 2020).

The following is a system design consisting of flowcharts, use case diagrams and activity diagrams.

### Use Case Diagram

Use Case Diagrams are a communication depiction of actors with one or more in accessing the system to be made, this diagram serves as information on who and what activities can be carried out by these actors. Use Case Diagrams can describe the relationship between use cases and actors, and the relationship between one use case and another (Priyamita & others, 2023).
Activity Diagram

Activity diagrams describe workflow or system operations or business processes (Sukamto & Shalahuddin, 2018).

Fig. 2 Use Case Diagram

Fig. 3 Finance & EVA Activity Diagram

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Implementation

Table 3. system testing

<table>
<thead>
<tr>
<th>Test Scenario</th>
<th>Expected results</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Login to the system and input username &amp; password</td>
<td>The system gives user access to enter the system</td>
<td>Valid</td>
</tr>
<tr>
<td>Input financial report data according to the required column</td>
<td>The system requires data to calculate financial reports</td>
<td>Valid</td>
</tr>
<tr>
<td>Pressing the EVA calculation button to get the results from the financial reports</td>
<td>The system automatically calculates the EVA value based on the formula and displays the result</td>
<td>Valid</td>
</tr>
<tr>
<td>Print financial data reports and EVA results</td>
<td>The system can print data into documents so that they can be easily seen and understood</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Stakeholder Analysis

Table 4. stakeholder analysis

<table>
<thead>
<tr>
<th>Stakeholders</th>
<th>Stake in the project</th>
<th>Impact on project</th>
<th>What is important to the stakeholder</th>
<th>Stakeholder management strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The foundation's president</td>
<td>Supervise and evaluate the running of the project</td>
<td>High</td>
<td>The running of the foundation by following the rules of law</td>
<td>Governance of the foundation is based on sharia law Establish connections to several sources that are important for building foundation relationships Clear financial contract according to the rules</td>
</tr>
<tr>
<td>Secretary</td>
<td>Manage existing human resources</td>
<td>Medium</td>
<td>Maximize resource potential</td>
<td></td>
</tr>
<tr>
<td>Treasurer</td>
<td>Execute and implement the project system</td>
<td>high</td>
<td>The calculated numbers are clear</td>
<td></td>
</tr>
</tbody>
</table>

DISCUSSIONS

Based on previous research that applied the EVA method without the system they applied, the authors found a way to apply the EVA method to an information system and apply it to the research site. produce an eva value of Rp. 4,267,398,060. There are also limitations regarding financial details from the foundation that are given, namely finances for the period June 2020 - June 2021

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CONCLUSION

The conclusion is that the resulting system is a financial performance information system by applying the EVA (Economic Value Added) financial report calculation method. For the EVA method there are several calculation steps starting from finding the NOPAT (Net Operating Profit After Tax) value, then calculating the IC value (Invested Capital), calculates the WACC (Weighted Average Cost of Capital) value, calculates the CC (Capital Charges) value, and finally determines the EVA (Economic Value Added) value. After doing the calculations, the final EVA value is obtained.

In this study, the data obtained from the research site were in the form of financial report files and information related to the foundation. The existing system designs are flowcharts, use case diagrams and activity diagrams. Then those who can access the system are the head of the foundation in charge of managing user access rights and receiving financial reports, the secretary in charge of calculating EVA values and the treasurer in charge of managing financial accounting.

The results obtained from calculating the financial statements of the research site for the period June 2020-June 2021 using the EVA (Economic Value Added) method are Rp.4,267,398,060.

REFERENCES


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