MANAGEMENT ACCOUNTING INFORMATION’S EFFECT ON E-CLINIC USAGE THROUGH PERFORMANCE AS AN INTERVENING VARIABLE

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ABSTRACT

Background: This research is motivated by the rapid development of IT-based information and technology and is increasingly widely known by the wider community, starting from information media which was initially only used on paper media, now switching to computerized media. Almost all companies, organizations, institutions, hospitals and government agencies require fast, precise and accurate data and information management in improving their performance, one of which is a clinic in which there is also information management.

Aim: The purpose of this study is to analyze and examine whether there is an influence between management accounting information on the use of e-clinics and performance measurement as an intervening variable.

Method: The research method uses quantitative methods, using SPPS as a data processing tool and Sobel test to test the intervening variables.

Findings: The results of this study are there is an influence between management accounting information on the use of e-clinics, there is no effect between management accounting information on performance measurement, there is an influence between performance measurements on the use of e-clinics, there is no effect between management accounting information systems on the use of e-clinics clinic with performance measurement as an intervening variable.

KEYWORDS
management accounting information system, performance measurement, e-clinic

INTRODUCTION

This research is motivated by the development of technology and information that is very fast and increasingly widely known by the general public, starting from information media which was initially only used in paper media, now moving to computerized media. Almost all companies, organizations, institutions, hospitals, and government agencies require fast, precise, and accurate data and information management to improve their performance (Rozaq et al., 2017). Developments in information and communication technology at this time have brought significant benefits to the advancement of people's lives. The use of information technology aims to achieve efficiency in various aspects of information management which is indicated by speed and the timeliness of processing, as well as the accuracy and accuracy of the information, one of which is a clinic in which there is also information management. The clinic is one of the places where activities are held that are used to provide the medical services needed for each patient. A clinic is a service company managed by the government and private parties to provide health services for the community (Rahman et al., 2020).
Providing good services to the community must be supported by implementing a sound accounting system (Nuryanti & Santoso, 2017). So far, the service operations in patient registration at Rahima clinic are still manual. In providing health services, the income earned by Rahima Clinic comes from the receipt of emergency installations (IGD), outpatient admissions, inpatient admissions, and home care receipts. There are four outpatient service processes provided by Rahima Clinic: the patient registration process, the medical examination process, the payment process, and the process of making information income reports (Nufus & Oktapiani, 2019).

The increasingly fast business resistance in Indonesia requires companies to make the most of their existing capabilities to excel in business competition. Through business competition, business people must form flexible and innovative business conditions by considering external factors that are increasingly difficult to predict to survive to strengthen the business competition environment, namely by improving managerial performance. The company's competitive advantage can be appropriately created (Rumapea et al., 2018). Management accounting information system is a system that plays a role in helping to move and develop the company in helping to predict the possible consequences of several actions carried out on various activity activities such as planning, controlling, and decision making. The characteristics of management accounting information are categorized into four traits: scope, timeliness, aggregation, and integration, which can help managers in decision-making (Irawati & Ardianshah, 2018). To be able to see to what extent the point of success of a company in carrying out its business processes requires a performance measurement.

Research by Niantyasari et al. (2018) revealed that display variable, information system function, information system performance, and quality of information system positively affect users’ satisfaction on the application of information system. Another one by Adam (2018) stated that people’s interest in using the information system and the human resource’s quality affect the effectiveness of service information system at the hospital. However, the researchers have not yet identified any research discussing how performance intervenes the management accounting information, let alone in the case of E-Clinic.

E-Clinic performance measurement is a systematic improvement of the effectiveness of the computerized application-based accounting information system in carrying out company operational activities based on predetermined standards to implement the company's strategy and improve decision-making successfully.

Since its establishment, the management of Rahima Clinic has used a paper-based manual recording system, which causes frequent data loss in the case of damaged or torn paper so that there are many problems in reporting both monthly and year-end reports. With the above issues, the researcher conducted research entitled "Management Accounting Information’s Effect on E-Clinic Usage through Performance as an Intervening Variable."

The problems in the research are: 1) Is there an influence between management accounting information on the use of e-clinics? 2) Is there any influence between management accounting information on performance measurement? 3) Is there an influence between performance measurement on the use of e-clinics? 4) Does management accounting information systems influence using e-clinics and performance measurements as an intervening variable?
**METHOD**

The method carried out is a descriptive quantitative method. According to Sugiyono (2019), quantitative research is defined as a research method based on the philosophy of positivism, used to research in specific populations or samples, data collection using research instruments, data analysis is quantitative/statistical, intending to test the hypothesis that has been determined. According to Narbuko and Abu (2002), descriptive research is a study that seeks to answer existing problems based on data. The process of analysis in descriptive research is to present, analyze, and interpret. This research was centered on Rahima clinic, Serang regency. The population in this research was Rahima Clinic, Serang Regency, with purposive sampling, namely the criteria for administration staff, nurses, midwives, doctors, analysts, finance, and management. The data in this study was obtained by sending a questionnaire directly to respondents. The data in this study were analyzed using SPSS and Sobel tests in the intervening test.

**RESULTS AND DISCUSSION**

**Test Research Instruments**

**Data Validity and Reliability**

According to Ghozali (2012), the validity test aims to measure a questionnaire's validity or validity. An item is said to be valid if the statement on the questionnaire can reveal something that the questionnaire will measure (Faisal & Sari, 2020). The validity test is carried out using the SPSS version 23 program. The results of the test can be seen in the following table:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management Accounting Information</td>
<td>.681</td>
<td>8</td>
</tr>
<tr>
<td>Performance Measurement</td>
<td>-1.431</td>
<td>9</td>
</tr>
<tr>
<td>E-Clinic</td>
<td>.778</td>
<td>12</td>
</tr>
</tbody>
</table>

*Source: SPSS data, processed in 2022*

**Test the Classic Assumptions'**

**Normality Test**

The Normality Test aims to test whether the residuals in the regression model follow a normal distribution or not. The normality test was performed using the SPSS v. 23 program. The results of the normality test can be seen in the following table:

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Residual</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>42</td>
</tr>
<tr>
<td>Normal Parametersa,b</td>
<td>Mean: .0000000</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation: 1.34226708</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>Absolute: .092</td>
</tr>
<tr>
<td></td>
<td>Positive: .082</td>
</tr>
</tbody>
</table>

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*Source: SPSS data, processed in 2022*
Management Accounting Information’s Effect on E-Clinic Usage through Performance as an Intervening Variable

<table>
<thead>
<tr>
<th>Test Statistic</th>
<th>Negative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.92</td>
</tr>
</tbody>
</table>

| a. Test distribution is Normal. |
| b. Calculated from data. |
| c. Lilliefors Significance Correction. |
| d. This is a lower bound of the true significance. |

Source: SPSS data processed 2022

Based on the results of the normality test in the table above, the significance value of the Kolmogorov Smirnov test is greater than the alpha value (0.200>0.05), so that the residual model data is normally distributed or the assumption of normality has been met.

Multicollinearity Test

The Multicollinearity Test, according to Ghozali (2012), aims to test whether the regression model found a correlation between one free variable and another free variable. The regression model can be said to be good if there is no correlation between free variables by looking at each independent variable's VIF value and tolerance value. If the tolerance value > 0.10 and the VIF value < 10, then the data is free of symptoms of multicollinearity (Ayuwardani & Isroah, 2018). The multicollinearity test was carried out using the SPSS v. 23 program. The results of the multicollinearity test can be seen in the following table:

Table 3. Multicollinearity Test Results

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>-1.401</td>
<td>5.391</td>
<td>-.260</td>
<td>.796</td>
<td></td>
</tr>
<tr>
<td>Accounting Information System</td>
<td>1.258</td>
<td>.097</td>
<td>.882</td>
<td>13.023</td>
<td>.000</td>
</tr>
<tr>
<td>Performance Measurement Methods</td>
<td>.248</td>
<td>.114</td>
<td>.147</td>
<td>2.171</td>
<td>.036</td>
</tr>
</tbody>
</table>

Based on table 3, the tolerance value of the accounting information system is 0.992 > 0.10, and the performance measurement method is 0.992 > 0.10. The results show that each variable has a tolerance value of > 0.10. then for the VIF value of the accounting information system is 1.008 < 10 and the performance measurement method is 1.008 < 10, the result shows that each variable has a VIF value of < 10. Then it can be concluded that there is no multicollinearity, so the regression model is worth using.
Management Accounting Information’s Effect on E-Clinic Usage through Performance as an Intervening Variable

Correlation Coefficient Test Results

Table 4. Correlation Coefficient of Accounting Information to Performance Measurement

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.087a</td>
<td>.008</td>
<td>-.017</td>
<td>1.905</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Accounting Information Systems
b. Dependent Variable: Performance Measurement Method

Source: SPSS data processed 2022

Table 5. Correlation Coefficient of Informasi Accounting and Performance Measurement to the Use of E-Clinic

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.907a</td>
<td>.822</td>
<td>.813</td>
<td>1.376</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Performance Measurement Methods, Accounting Information Systems
b. Dependent Variable: E-clinic

Source: SPSS data processed 2022

T Test Results

Table 6. Effect of Accounting Information System on E-Clinic

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>-1.401</td>
<td>5.391</td>
<td>-.260</td>
<td>.796</td>
</tr>
<tr>
<td>Accounting Information System</td>
<td>1.258</td>
<td>.097</td>
<td>.882</td>
<td>13.023</td>
</tr>
</tbody>
</table>

a. Dependent Variable: E-clinic

Source: SPSS data processed 2022

Table 6 shows that the test results for the accounting information system variable have a t-count value of 13.023 > t-table 2.022 with a significance probability level of 0.000 < 0.05. This shows that there is an influence between accounting information systems on the use of E-clinics.

Table 7. Effect of Accounting Information System on Performance Measurement Methods

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
</tbody>
</table>

Source: Interdisciplinary Social Studies, 1(11), Aug 2022
Management Accounting Information’s Effect on E-Clinic Usage through Performance as an Intervening Variable

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>35.751</td>
<td>4.872</td>
<td>7.339</td>
</tr>
<tr>
<td></td>
<td>Accounting Information System</td>
<td>.073</td>
<td>.133</td>
<td>.087</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance Measurement Method

Source: SPSS data processed 2022

Table 7 shows that the test results for the accounting information system variable have a t-count value of \(0.551 < t\)-table 2.022 with a significance probability level of \(0.551 > 0.05\). This shows no influence between accounting information systems on performance measurement methods.

Table 8. Effect of Performance Measurement Methods on E-Clinic

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients(a)</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 (Constant)</td>
<td></td>
<td>-1.401</td>
<td>5.391</td>
<td>-.260</td>
<td>.796</td>
</tr>
<tr>
<td>Performance Measurement Methods</td>
<td></td>
<td>.248</td>
<td>.114</td>
<td>.147</td>
<td>2.171</td>
</tr>
</tbody>
</table>

a. Dependent Variable: E-klinik

Source: SPSS data processed 2022

Table 8 shows that the test results for the accounting information system variable have a t-count value of \(2.171 > t\)-table 2.022 with a significance probability level of \(0.036 < 0.05\). This shows the influence of performance measurement methods on the use of E-clinics.

Intervening Test

Intervening test variables influence of management accounting information on the use of e-clinic mediated by performance measurement calculated using Sobel test:

\[ Sab = \sqrt{b^2Sa^2 + a^2Sb^2 + Sa^2Sb^2} \]

\[ Sab = \sqrt{(0.248)^2(0.133)^2 + (0.073)^2(0.114)^2 + (0.133)^2(0.114)^2} \]

\[ Sab = \sqrt{(0.062)(0.018) + (0.005)(0.013) + (0.018)(0.013)} \]

\[ Sab = \sqrt{0.0011 + 0.00006 + 0.0002} \]

\[ Sab = 0.0369 \]

Based on the results, the t-statistical value of the influence of mediation is calculated with the following formula:

\[ t = \frac{ab}{Sab} \]

\[ t = \frac{(0.073)(0.248)}{0.0369} = 0.49 \]
Management Accounting Information’s Effect on E-Clinic Usage through Performance as an Intervening Variable

The results of the Sobel test showed a statistical test Sobel value of 0.49 < 1.96 with a significance level of 0.05. Then, the performance measurement method (Z) cannot mediate the influence of the accounting information system (X) on the use of E-clinic (Y).

The Effect of Management Accounting Information on the Use of E-Clinic

Table 6 shows that the test results for the accounting information system variable have a t-count value of 13.023 > t-table 2.022 with a significance probability level of 0.000 < 0.05. This shows the influence of accounting information systems on the use of E-clinics.

According to Maelani et al. (2021) a management accounting information system is a system that, when implemented, will provide or convey relevant information to managers or stakeholders to make decisions, planning, and supervision. The application of the e-clinic model with the use of information obtained from the management accounting system will affect the performance of the e-clinic. As for the e-clinic application, it focuses on how the doctor's working hours and patient data. Hence, information about the number of patient visitors in the uterine clinic will affect decisions such as the salary received by the doctor or planning on the quality of service and shortening when things happen outside of planning.

Effect of Management Accounting Information on Performance Measurement Methods

Based on table 7 of the SPSS calculation, it is concluded that accounting information does not influence the performance measurement. According to Kumentas (2013), management accounting information is a systematic improvement of the workforce's effectiveness in carrying out company operational activities based on predetermined standards to implement company strategies and improve decision-making successfully. At Rahima Clinic, information related to planning, controlling, and evaluating management accounting does not affect the implementation of performance measurement methods. For example, information on doctors who receive some patients will receive awards. This is because Rahima Clinic has not provided continuous appreciation or motivation to clinic employees, even though they get information data from management accounting.

Effect of Performance Measurement Methods on E-Clinic

Table 8 shows that the test results for the accounting information system variable have a t-count value of 2.171 > t-table 2.022 with a significance probability level of 0.036 < 0.05. This shows the influence of performance measurement methods on the use of E-clinics.

Performance measurement can be helpful for the company if done as well as possible. Therefore the information produced must be effective and efficient. According to Sigilipu (2013), the effectiveness of news depends on how it is conveyed to the leader, which holds each piece of information and will then be processed into useful information in assessing performance. Performance appraisal is carried out to emphasize undesirable behavior following the procedure applied by the Rahima Clinic. Feedback on performance results also rewards both intrinsic and extrinsic.

Employees, doctors, or all human resources in the Rahima Clinic environment might receive an award. Therefore, the main purpose of performance appraisal is to motivate employees to achieve organizational goals and to comply with previously set standards in beholder to produce the desired actions and results. This method of measuring performance
will affect the use of applications in e-clinics. Hence, employees are motivated to learn about using the e-clinic application, and the results displayed from the e-clinic can be used by managers as decision-makers.

The Effect of Management Accounting Information on the Use of E-Clinics Moderated by Performance Measurement

The results of the Sobel test show a statistical test Sobel value of 0.49 < 1.96 with a significance level of 0.05. Then it can be concluded that the performance measurement method (Z) cannot mediate the influence of the accounting information system (X) on the use of E-clinic (Y).

Information on management services is a tool system, a type of information carried out by the Rahmia Clinic internals to plan, identify, control, evaluate and make decisions. Management information is necessary for managing various levels of the organization to prepare a plan for the activities of the Rahmia Clinic in the future. Management information is related to how the clinic measures the performance of all employees, doctors, and patients. Performance measurements such as providing maintenance, providing training, providing quality services, and meals will affect the use of e-clinics. At Rahima Clinic, the use of information obtained by management accounting information does not influence the use of e-clinics moderated by performance measurements. It is because it is only used to see the benefit of e-clinics according to the standards without paying attention to the rewards or motivations of the employees at Rahima Clinic.

CONCLUSION

From the description discussed in the previous section, there is an influence between management accounting information on the use of e-clinics. Still, there is no influence between management accounting information on performance measurement. In addition, there is an influence between performance measurement on the use of e-clinic, and there is no influence between management accounting information systems on the use of e-clinic and performance measurement as an intervening variable.

For researchers, it is better to examine other variables that can affect managerial performance or add moderation variables such as reward, total quality management (TQM), and decentralization. The research can be conducted in clinics in other regions of Indonesia. Hopefully, the results of this study can be a reference in making policies and help provide decisions regarding the application of management accounting information and performance measurement methods because the decisions taken will affect the clinic's performance in providing maximum protection for the progress and survival of the clinic.

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