Accounting Information System Analysis and Management Control in an Effort to Improve Effectiveness
(Case Study at Muhammadiyah University Prof. DR. HAMKA)

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Abstract:
Purpose – This study aims to explain the influence of the involvement of accounting information systems, management information systems and operational procedure systems on improving work efficiency.
Design/methodology/approach – This research was conducted using quantitative methods. The type of data used is primary data. The data collection technique uses the questionnaire deployment technique.
Findings – The result of this study is that the accounting information system has no effect on effectiveness, the management control system has a significant effect on effectiveness. The University is advised to continue to carry out system development, so that system performance is more optimal.
Research limitations/implications – In this study researchers were limited to several aspects. This research is limited to muhimmadiyah university Prof. DR. HAMKA, Respondents to this study were limited to only employees or the academic community of UHAMKA, The variables of this study are limited to three variables, namely the Accounting Information System, Accounting Information System and Management Control System, while there are still variables that can affect the effectiveness of, and The fourth limitation is that this study uses a questionnaire, so there is a possibility of dishonest respondents in answering questions.
Practical implications – The following conclusions can bel drawn: Accounting Information System has no elffelet on Elffeetivelness with a T-Statistic of 0.232 and a P Valuel valuel of 0.817. Thel Managelmelnt Control Systelm has a significant elffelet on Elffeetivelness with T-Sttistik telst relsults of 15,600 and P Valuel of 0.000.
Originality/value – So it can be obtained that the Accounting Information System owned by the University of Muhammadiyah Prof. DR. HAMKA has not had an influence that can have an impact on the effectiveness of employee work.

Keywords: Accounting Information System, System Analysis, Management Control, and Effort to Improve Effectiveness.
Introduction

Every organization, whether a non-profit organization such as an educational institution, certainly wants to achieve the goals that have been set with effective and efficient results. Effectiveness is necessary to face increasingly fierce competition with other competitors. It is said to be effective if the targets achieved are in accordance with predetermined policies and program plans (Atmaja et al., 2018). Whereas efficient can be said if something sacrificed is smaller than what is obtained (Atmaja et al., 2018). In carrying out activities, an agency requires quality human and technological resources in order to work effectively. In the use of technology, an organization can provide, manage and can carry out financial reports very quickly, accurately and easily (Natalia, 2020).

A system is a set of components that are interconnected and work together to achieve several goals (Agustin, 2018). Technology not only provides an effective means to elaborate on the issues prevailing in the organization but can also improve the accounting information system which has several important roles in performance management, although various proxies of the accounting information system can effectively calculate its impact on performance management (Al-Delawi & Ramo, 2020). Accounting information systems in an agency are very helpful for management in making better decisions (Fibriyanti, 2017). The development of information systems brings changes that occur in individuals or business entities by looking at the tendency to always use computers in an activity on all lines of work (Mirnasari & Suardhika, 2018).

Information systems are not only commonly used in accounting, generally also used control, improvement and evaluation of goals or simply information systems are also used in organizational management activities such as management and procedures. The way the management information system works that starts from data processing is then stored in a centralized database where it can be accessed and updated is very necessary for management [7]. The relvel selvelrul factors that make management information systems very much needed by educational institutions, including educational institutions faced with an increasingly sophisticated, complicated, and dynamic global environment [8].

Because in the process the educational institution must also have standards that can bind all the elements. So that the process in achieving goals can be carried out effectively. The relationship of effectiveness can be maintained by various aspects, but in this study the effectiveness is limited to the factors of the accounting information system and management control system.

Research conducted by Putra & Indraswarawati (2020), indicates that the Accounting Information System has no effect on Effectiveness. Meanwhile, in the research conducted by (Salahudin et al., 2020) shows that the Accounting Information System has an influence on Effectiveness. In addition, in the research conducted by Anas (2016) it was found that the Management Control System had an effect on Effectiveness.

Problem Formulation

Based on the background description of the problem that has been explained, the author formulates the subject matter as follows: Does the Accounting Information System have a significant effect on the effectiveness of the Universitas of Muhammadiyah Prof. DR. HAMKA?, Does the Management Control System have a significant effect on the effectiveness of the Universitas of Muhammadiyah Prof. DR. HAMKA?
**Literature Review**

**Information System**

By Azizah Suraida (2017) the system is a framework of interconnected procedures, which are drawn up according to a thorough scheme. To carry out an activity or the main function of the company produced by a management process, the company's operations from day to day as well as providing relevant information to outsiders.

By Yunita & Delvitra (2017), Information Systems are units of interconnected components that collect or recollect, process, store, and distribute information to support decision making and control in an organization.

**Accounting Information System**

By Krismiaji in Elka et al., (2019) Accounting Information System is a “system that processes data from transactions to produce useful information for planning, controlling, and operating a business”.

By Elmawatiningsih (2020) In general, the Accounting Information System is an organizational component that collects, classifies, processes, analyzes, and communicates financial information and decision-making that is relevant to external parties and internal parties”.

By Hurt, in Kwartelng & Avelh (2018) ‘the Accounting Information System is a set of interrelated activities, documents and technologies designed to collect data, process it and report information to various groups of internal and external decision makers in the organization”.

By Nasution & Harahap (2021) “Accounting Information System is an arrangement of various forms of records, equipment and equipment as well as closely coordinated communication tools, implementers, and reports designed to transform financial data into information needed by top management”.

**Management Control System**

By Aji (2019) “Management control is a system consisting of several interrelated system subsidiaries, namely programming, accounting budgeting, reporting and accountability to help management influence others in a company in order to achieve company goals through certain strategies efficiently and efficiently”.

By Bunga Sabyla Dwi Rahma, et al., (2022) “Management control system is a system used by managers to direct members of the organization or company to carry out their activities efficiently and efficiently in accordance with the established strategy to achieve goals and objectives”.

**Method**

This research uses quantitative research methods using primary data. That is, data obtained directly from a preselected individual object. The source of the data obtained in this study is in the form of a questionnaire that has been filled out by UHAMKA employees. The population is the whole of the elements that exist and are similar (Arikunto, 2010). The population used in this study were employees of the University of Muhammadiyah Prof. DR. HAMKA (UHAMKA).

A sample is a portion of the population whose characteristics will be investigated and can be considered representative of the existing population (Arikunto, 2010). The sampling technique used is purposive sampling because the selected sample is adjusted to the research objectives so that the selected sample is only a sample that matches certain criteria. The samples used in this study amounted to 45 samples, all of which were selected by employees of the University of Muhammadiyah Prof. DR. HAMKA (UHAMKA).

**Results and Discussion**

Hypothesis testing in this study used Partial Least Square (PLS). PLS is an alternative analysis with a Variance-based Structural Equation Modelling (SEM). Researchers used SmartPLS 3.0 software in processing the data carried out, where the data obtained has previously been screened so that the results are not missing valuable data. SEM component based PLS software was first developed by Jan-Bernd Lohmoller (1984, 1987, 1989) under DOS and was called LVPLS Velsrion 1.8 (Latent Variable Partila
Lelasht Squarels). This software was further developed by Waynel W Chin (1998, 1999, 2001) into under windows with graphical interfaces and additional improvements to validation techniques by including bootstrapping and jacknifing. PLS-SEIM analysis usually consists of two sub-models, namely the measurement model or often called the outer model and the structural model or often called the inner model. Analysis of the measurement model in this study was carried out with a validity test and a reliability test, this test consists of convergent validity and discriminant validity.

**Cronbach’s and Composite Reliability**

In the SEIM-PLS software, the Reliability Test can use two methods, namely Cronbachs Alpha and Composite Reliability. Cronbach Alpha is a measure of the lower limit of the value of reliability. Composite Reliability will measure the actual value of the reliability of a construct. “The role of thumbs of the Cronbachs Alpha is greater than 0.6 and the Composite Reliability is greater than 0.7” (Ghozali, 2021).

<table>
<thead>
<tr>
<th>Table 1. Cronbach’s Alpha</th>
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<tr>
<td><strong>Cronbach’s Alpha</strong></td>
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<tr>
<td>Effectivity</td>
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<tr>
<td>Accounting Information System</td>
</tr>
<tr>
<td>Management Control System</td>
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</tbody>
</table>

Source: Data Analysis 2022

It can be seen that the Cronbachs Alpha and Composite Reliability are above 0.70 so it can be concluded that the data obtained meet the reliability requirements.

**Average Variance Extracted (AVE)**

The Average Variance Extracted method is used to evaluate discriminant validity for each construct and latent variable. Tests with AVE values are more critical than composite reliability. The minimum recommendation of AVE value is 0.5 (Tresniggonowati & Kulsum, 2018). The AVE output obtained from the PLS Algorithm Report SmartPLS 3.0 in this study can be seen in the following table:

<table>
<thead>
<tr>
<th>Table 2. Average Variance Extracted (AVE)</th>
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R – Squarel

After the measurement model examination is melt, a structural model examination is then carried out. This examination includes the significance of the line and the R-Square. R-Square function to find out how much an independent variable affects its dependent variable. The results of the R-Square test in this study are as follows:

<table>
<thead>
<tr>
<th>Effectivity</th>
<th>R Square</th>
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<tbody>
<tr>
<td></td>
<td>0.889</td>
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</table>

Source: Data Analysis 2022

Based on tests conducted using SEM PLS software, it can be seen that the R-Square value in this study was 0.889.

Uji Hipotesis

In hypothesis testing, the bootstrap resampling procedure is used to use t-statistical tests. When the t-statistical (t-count) value is compared with the > the t-table concludes that H1 is accepted and H0 is rejected. The t-table value used in this study was 1.96 (with an alpha value of 0.05). The results of hypothesis testing in this study can be seen in Figure 1.

![Picture 1 Uji Hipotesis](source: Data Analysis 2022)
Path Coefficients

Path Analysis (PA) is a causal model analysis of independent (exogenous), intermediate (endogenous), and dependent variables.

Table 4. R – Square

| Path Analysis | Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|---------------|---------------------|-----------------|---------------------------|--------------------------|----------|
| Accounting Information System -> Effectiveness | 0.018 | 0.030 | 0.080 | 0.232 | 0.817 |
| Management Control System -> Effectiveness | 0.931 | 0.920 | 0.060 | 15.600 | 0.000 |

Source: Data Analysis 2022

If viewed from the table above, in the comparison on the path coefficients, it is found that:

H1 : Accounting Information System has no effect on Effectiveness. This is shown by the results of data analysis that the original sample is 0.018, T – Statistics is 0.232 (< 1.96) and P Value is 0.817 (> 0.05). These results contradict the research conducted by Putra & Indraswarawati (2020), who obtained the results that the Accounting Information System has a positive and significant effect on the effectiveness of.

H2 : Management Control System has an influence on Effectiveness. This is indicated by the original sample value of 0.931, T – Statistics of 15.600 (> 1.96), and P Value of 0.000 (< 0.05). The results of this study are in line with the research conducted by Anas (2016), who observed the Management Control System has an influence on effectiveness.

Conclusion

From the research on Accounting Information System Analysis and Management Control System in an Effort to Increase Effectiveness using SmarPLS 3.0 software, the following conclusions can be drawn:

1. Accounting Information System has no effect on Effectiveness with a T-Statistic of 0.232 and a P Value value of 0.817.
2. The Management Control System has a significant effect on Effectiveness with T-Statistic test results of 15,600 and P Value of 0.000.

So it can be obtained that the Accounting Information System owned by the University of Muhammadiyah Prof. DR. HAMKA has not had an influence that can have an impact on the effectiveness of employee work.
Acknowledgement
In this study researchers were limited to several aspects.

1. This research is limited to Muhammadiyah University Prof. DR. HAMKA.
2. Respondents to this study were limited to only employees or the academic community of UHAMKA.
3. The variables of this study are limited to three variables, namely the Accounting Information System, Accounting Information System and Management Control System, while there are still variables that can affect the effectiveness of.
4. The fourth limitation is that this study uses a questionnaire, so there is a possibility of dishonest respondents in answering questions.

For further research, researchers suggest using more diverse variables in uncovering various factors that can affect Effectiveness. In addition, further research is also recommended to be able to expand the object to be studied.

Conflict of Interest
This section is a statement from the author that this article has a conflict of interest or not.
References


