

## **THE EFFECT OF USER PARTICIPATION AND ACCOUNTING PERSONAL TECHNICAL ABILITY ON ACCOUNTING INFORMATION SYSTEM PERFORMANCE**

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### **ABSTRACT**

*The use of accounting information system is very important to the Church as a non-profit organization. This study aims to test empirically the effect of user participation and the ability of personal accounting techniques on the performance of accounting information systems. The method used in this research is a quantitative method with a survey research design and the analytical technique used is SEM-PLS. The results show that user participation and accounting personal technical ability have a positive and significant effect on the accounting information system's performance.*

*Keywords: SEM-PLS, Accounting Personal Technical, Accounting Information System, Non-Profit Organization*

### **1. INTRODUCTION**

The existence of an accounting information system to process data quickly and accurately enable organizations to improve their performance. The use of accounting information systems is not only used by profit-oriented organizations but can also be used by non-profit organizations, one of which are churches. GMAHK Foundation is one of churches foundation that has implemented an accounting information system. However, the performance of the accounting information system is not optimal yet. That can be seen from the accounting system that is not easy to learn, the features are not up to date, the data processing process is not fast enough so that it hampers accounting activities.

According to Romney&Steinbart (2015) [1] accounting information system technology is a system that has functions to collect, record, store, and process data into useful information in assisting the decision-making process. According to Wibisono and Setyohadi (2017) [2] the use of accounting information systems is not only used by profit-oriented companies or organizations but can also be used by non-profit organizations. The main purpose of the financial statements of non-profit organizations is basically the same as commercial organizations, namely, to provide information relevant to the activities carried out by the organization. According to Meiryani (2020) [3] Accounting information system performance is an assessment and evaluation of the achievement of the results of the application of accounting information systems used by companies to produce accounting information that is effective, efficient, and accurate in accordance with organizational goals. Furthermore Surtikanti (2021) [4] argued that the performance of accounting information systems is influenced by several factors, one of the important factors in the performance of accounting information systems is user participation. According to Braja (2014) [5] user participation in the accounting information system includes the role of users in contributing to the process of designing information systems so that they can support system development. In line with the statement, Meiryani (2020) [3] found that

user participation affects the accounting information system, the better user participation in the accounting information system development process, the accounting information system performance will be better as well. In other hand, according to Surtikanti (2021) [4] another important factor that affects the performance of accounting information systems is the accounting personal technical ability. Based on the report of Surtikanti (2021) [4] and Puspitawati (2015) [6] accounting personal technical ability has a significant influence on the performance of accounting information systems.

## **2. LITERATURE REVIEW**

### **Theoretical Review**

#### **User participation**

According to Barki (1991) [7] user participation is defined as the behavior and activities carried out by users who are the target of a system in the system development process. Furthermore, according to Hall (2008) [8] The accounting information system consists of the dimensions of accountant’s participation, among others, as users, system designers, and system auditors.

##### **1. User**

As end-users, accountants must provide a clear picture of their needs to IT professionals who design accounting information systems. The accountant must provide an overview of the accounting rules and techniques to be used, internal control requirements, and specific algorithms such as depreciation models. The participation of accountants in system development should be active rather than passive [8].

##### **2. System Designer**

Along with the development of accounting information systems, the role of accountants responsibilities has grown not only as users but also as system designers. Accountants must share responsibility with IT professionals in system design. In designing the accounting information system, the accountant is responsible for the conceptual system while IT professionals are responsible for the physical system [8].

##### **3. System Auditor**

Auditing is a form of independent attestation carried out by an expert auditor who expresses an opinion about the fairness of a company's financial statements. Public trust in the reliability of the organization's internal financial statements directly relies on the endorsement by independent expert auditors. This service is often referred to as an attest function [8].

#### **Accounting Personal Technical Ability**

According to Damasiotis (2015) [9] ability is defined as a collection of knowledge and skills that enable an employee to act effectively in his work in various situations. Dimensions of Personal technical ability that must be possessed by accountants related to the use of accounting information systems include.

##### **1. Performance and reporting**

The ability of accountants in identifying governance activities, the ability to understand the strategic plans and planning processes of the entity, the ability to evaluate the adequacy of the organization's information technology strategy, the ability to assess IT risks and how to manage them, and the ability to understand the need for access to information.

##### **2. Governance, Strategy, and Risk management**

Ability to develop or evaluate reporting processes to support financial reporting. Establish or improve financial reporting using IT. Recommend improvements to the internal

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financial reporting system. Identify and analyze non-financial reporting needs.

### 3. Assurance

Designing appropriate procedures based on the scope, risk, and materiality guidelines for the assignment. Identify the role IT plays in the organization's key operational controls. Evaluate elements of internal control related to IT.

### 4. Management Decision making

Analyze, select, and suggest IT solutions to support process and management information needs. Evaluate alternative IT solutions. Identify and evaluate acquisition or source decision factors. Perform IT options analysis. Suggest improvements to the organization's IT system implementation.

## **Accounting Information System Performance**

According to Farida et al (2010) performance is the level of achievement of the implementation of tasks in order to realize the goals, objectives, mission, and vision of the organization. Information systems are developed to assist individuals in carrying out their work. Organizations play a role in developing, using, and evaluating information systems. According to DeLone and McLean (2016: 238) [11], information system performance consists of six dimensions, including [11].

### 1. Quality System

System quality or system quality is a desirable characteristic of an information system. Indicators of this dimension include ease of use, system flexibility, system reliability, system ease of learning, system features, system sophistication, and system response time [11].

### 2. Information Quality

Information quality is the desired characteristic of system outputs which include management reports and Web pages. Indicators of this dimension include relevance, understanding, accuracy, conciseness, completeness, timeliness, and usefulness of information [11].

### 3. Service Quality

Service Quality or system service quality is the quality of support received by system users from information systems organizations and information technology support personnel. The indicators of this dimension include responsiveness, accuracy, reliability, technical competence, and empathy of IT personnel [11].

### 4. Use

Use is a dimension that measures the level and way users take advantage of the capabilities of information systems. Indicators of this dimension include the number of uses, frequency of use, nature of use, suitability of use, level of use, and purpose of use [11].

### 5. User Satisfaction

User satisfaction is the level of user satisfaction with reports, system platforms, and support services [11].

### 6. Net Impact

The net impact is the extent to which information systems contribute (or do not contribute) to the success of individuals, groups, and organizations. Indicators of this dimension include increased decision making, increased productivity, increased sales, reduced costs, increased profits, efficiency, organizational welfare, job creation, and economic development [11].

## **Hypothesis**

### **The Effect of User Participation on Accounting Information System Performance**

According to Delawi et al (2020) [12] information system performance has a major

impact on organizational performance and success. Furthermore Hall (2008) [8] stated that the participation of accountants as users of information systems in the design of accounting information systems is very important and is a determining factor for the success of accounting information systems. Lahuddin et al (2017) [13] and Meiryani et al (2020) [3] found that user participation has a significant effect on the performance of accounting information systems.

Hypothesis 1: User participation will have a significant positive effect on the performance of accounting information systems

### The Effect of Accounting Personal Technical Ability on Accounting Information System Performance

The performance of accounting information systems is also influenced by personal technical ability. Puspitawati et al (2015) [6] proved that personal technical ability has an effect on accounting information systems. Furthermore Athambawa et al (2018) [14] found that the personal technical ability can improve the accounting information systems.

Hypothesis 2: Accounting Personal technical ability will have a significant positive effect on the Accounting Information System Performance

### 3. RESEARCH METHOD

This study uses a survey research design with data collection using a questionnaire. The distribution of the questionnaires was carried out through the Google form. The population in this study were users of the accounting information system at the GMAHK UIKB Foundation. This study uses the type of data analysis structural equation model-partial least square (SEM-PLS).

### 4. RESULT AND DISCUSSION

This Study Used SEM-PLS to test the effect of the independent variable on the dependent variable and to test the hypothesis proposed in this study. The stages in data processing are divided into 2, namely testing the outer model and testing the inner model.

#### Outer Model Analysis

According to Hair et al (2014) [15] the outer model analysis consists of the evaluation of convergent validity, discriminant validity and Cronbach's alpha, and composite reliability. The results of data processing are presented as follows:

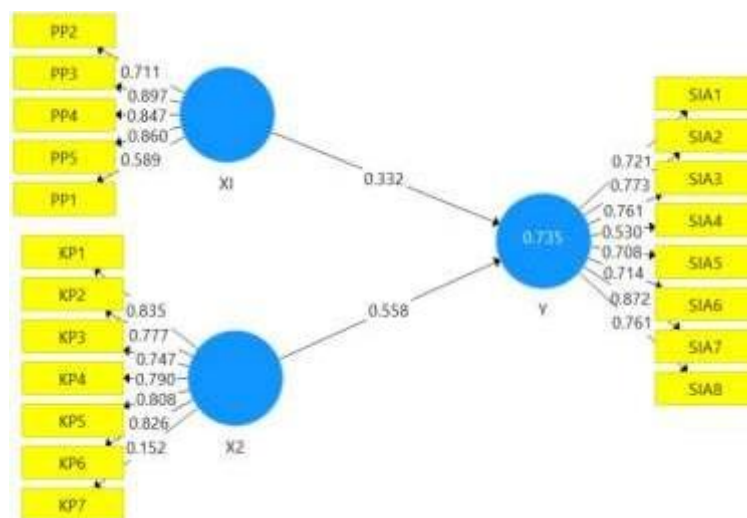


Figure 1: Outer Model

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Source: Self Proceed

### Convergent Validity

According to Ghozali (2015) [16] the convergent validity test uses the loading factor value as a benchmark. Dimensions and indicators are considered valid if their loading factors value  $>0.7$ . Based on the results of data processing, there are three indicators that have a value  $<0.7$ , i.e. 1 (User Participation 1), KP 7 (Personal Accounting Skills 7), and SIA 4 (Accounting Information System Performance 4) so those indicators considered invalid and issued from the next processing. Further testing is carried out and the results of the loading factor and convergent validity are presented in the following table.

Table 1: Outer Loading

Measurement Instruments	Outer Loading	Status ( $>0,5$ )
KP1	0,836	Valid
KP2	0,771	Valid
KP3	0,750	Valid
KP4	0,793	Valid
KP5	0,811	Valid
KP6	0,822	Valid
PP3	0,903	Valid
PP4	0,934	Valid
PP5	0,918	Valid
SIA1	0,744	Valid
SIA2	0,787	Valid
SIA3	0,751	Valid
SIA5	0,730	Valid
SIA6	0,733	Valid
SIA8	0,747	Valid

Source: Self Proceed

Based on the data in table 1, we can see that the loading factors value of each indicator  $>0,7$  so we can conclude that all indicators used are valid.

### Discriminant Validity

The validity of the indicator variables can also be viewed from the discriminant validity by evaluating the cross-loading value. The cross-loading value shows the value of the correlation of indicators within the variables. An indicator is considered valid if the correlation value of the indicator in the same variable is higher than the correlation value of the other variable indicator.

Table 2: Cross Loading

User Participation	Accounting Personal Technical Ability	Accounting Information System Performance
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<b>KP1</b>	<b>0,836</b>	0,592	0,627
<b>KP2</b>	<b>0,771</b>	0,501	0,518
<b>KP3</b>	<b>0,750</b>	0,708	0,781
<b>KP4</b>	<b>0,793</b>	0,600	0,593
<b>KP5</b>	<b>0,811</b>	0,660	0,664
<b>KP6</b>	<b>0,822</b>	0,752	0,723
<b>PP3</b>	0,750	<b>0,903</b>	0,685
<b>PP4</b>	0,737	<b>0,934</b>	0,669
<b>PP5</b>	0,743	<b>0,918</b>	0,704
<b>SIA1</b>	0,683	0,638	<b>0,744</b>
<b>SIA2</b>	0,623	0,573	<b>0,787</b>
<b>SIA3</b>	0,586	0,505	<b>0,751</b>
<b>SIA5</b>	0,454	0,460	<b>0,730</b>
<b>SIA6</b>	0,544	0,491	<b>0,733</b>
<b>SIA8</b>	0,760	0,636	<b>0,747</b>

Source: Self Proceed

The results of the cross-loading test show that all indicators have the highest correlation value with their own dimensions compared to other dimensions. Based on these results, all indicators are declared valid. Furthermore, convergent validity is also evaluated through the average variance extracted (AVE) value. A variable is considered valid if it has an AVE value  $>0.5$ .

Table 3: Variance Extracted (Convergent Validity)

	Average Variance Extracted (AVE)	Status ( $>0,5$ )
User Participation	0,843	Valid
Accounting Personal Technical Ability	0,637	Valid
Accounting Information System Performance	0,561	Valid

Source: Self Proceed

The results of data processing show that the AVE value of the latent variable construct has an AVE value  $> 0.5$ , so it can be concluded that the latent variable construct has a good construct. These results indicate that each latent variable contains information that can be reflected from the manifest variable.

### Cronbach's Alpha dan Composite Reliability

According to Ghazali (2015) [16] The reliability test of the measurement model can be determined by the value of Cronbach's alpha and composite reliability. The experts recommend the Cronbach Alpha and composite reliability values are  $>0.7$ . The results of the Cronbach's alpha test and composite reliability of each research variable are shown in the following table.

Table 4: Cronbach's Alpha dan Composite Reliability

	Cronbach's Alpha	Composite Reliability	Status ( $>0,7$ )
User Participation	0,907	0,941	Reliable
Accounting Personal Technical Ability	0,886	0,913	Reliable

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Accounting Information System Performance	0,845	0,885	Reliable
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Source: Self Proceed

The result of data processing shows that each variable has a Cronbach's alpha value and a composite reliability value  $> 0.7$ . Based on these results, each variable is considered reliable and fulfills the requirements for further analysis.

### Inner Model Analysis

Inner Model evaluation is conducted by analyzing R Square (R2), Q Square (Q2) and t-statistical test.

### Analysis R Square (R2)

R Square (R2) analysis is carried out to see the magnitude of the contribution of each exogenous variable was to the endogenous variable. Based on the data in table 5, we can see that the R-Squares value is 0.707 which means that the contribution of exogenous variables on endogenous variables, namely user participation, and personal accounting technique skills on accounting information system performance is 70%. The R-Square value is categorized as strong [16].

### Q Square (Q2) Analysis

The Q Square value is used to determine the goodness in the structural model. If  $Q2 > 0$  indicates the model has predictive relevance and if the model  $Q2 < 0$  indicates the model has no predictive relevance.

Table 6: Q Square ( $Q^2$ ) Analysis

	$Q^2$ (=1-SSE/SSO)
Accounting Information System Performance	0,356

Source: Self Proceed

Based on the data in table 6, the value of the predictive relevance or cross-validated redundancy ( $Q2$ ) is 0.356. The  $Q2$  value is  $> 0$  so it can be concluded that the user participation model (X1) and personal accounting technical ability (X2) on the performance of accounting information systems (Y) has good predictive relevance.

### Hypothesis Testing

Hypothesis testing is conducted by evaluating the original sample value, the T-Statistic value, and the P-Value value. In this study, hypothesis testing using bootstrap and the significance level used is 5%. The report of the first hypothesis shows that user participation has positive and significant effect on accounting information system performance, it can be seen from the T Statistics of  $2.107 > T$  table (1.960) with a P-value of  $0.036 < 0.05$ . Based on these results, it can be concluded that user participation has a positive and significant effect on the performance of accounting information systems, so hypothesis 1 is accepted. The results of this study are supported by the research of Meiryani (2020) [3] and Lahuddin et al (2017) [13] who also found that user participation has a positive and significant effect on the performance of accounting information systems. The better user participation, the better the accounting information system performance will be. The report of the second hypothesis shows the accounting personal technical ability has positive and significant effect on accounting information system performance it can be seen from the T-statistic value of  $6.628 > T$  table (1.960) with a p-

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value of 0.000 <0.05. Based on these results, it can be concluded that the Accounting Personal technical ability has a positive and significant effect on accounting information systems performance, so hypothesis 2 is accepted. The results of this study are in line with the research of Puspitawati et al (2015)

[6] and Athambawa et al (2018) [14] who found that the Accounting Personal technical ability has a positive and significant effect on the performance of accounting information systems. The better Accounting Personal technical ability, the better the performance of the accounting information system.

## **5. CONCLUSION**

The use of accounting information systems is definitely needed by the financial management of the Church as a non-profit organization in order to manage church finances efficiently, correctly, and transparently. In fact, there are problems in the performance of accounting information systems that are not optimal it may distract the accounting work. The results showed that the performance of accounting information systems is influenced by user participation and accounting personal technical skills. Based on the results of the research, church financial managers as users of accounting information systems are advised to increase participation in designing accounting information systems that are in accordance with Church needs and policies and improve accounting personal technical ability in using accounting information systems so that the performance of accounting information systems will be improved. However, in this study there are three indicators which are considered not valid and deleted namely PP 1 is the indicator of user participation, KP7 is the indicator of accounting personal technical ability and SIA 4 is the indicator Accounting Information System Performance 4. It be recommendation for further research to use other indicator to measure user participation, accounting personal technical ability, and Accounting Information System Performance. Furthermore, this study only examines the effect of user participation and accounting personal technical ability on Accounting Information System Performance in one Church, the further researches are suggested to take more than one organization.

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