Research Article

Information System Development Using the Technology Acceptance Model to Increase State Tax Revenue

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Abstract. The goal of this study was to look at how human resources, infrastructure, costs, utility perceptions, and perceived ease of implementation affect accounting information systems. 49 employees of Padang's tax office made up the sample for this poll. Quantitative research methods were applied in this study. Multiple regression analysis was used to examine the data. The findings revealed that, while infrastructure and costs had little bearing on the installation of computerized accounting information systems, the perceived usefulness of human resources had a positive and significant impact.

Keywords: personnel, cost, infrastructure, usage awareness, comfort awareness, accounting information system

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1. INTRODUCTION

Today's technological developments permeate the information field, especially the accounting information field of the companies. The demonstrated by the certification of (AICPA) or the American Institute of Certified Public Accountants to the system capabilities of the auditor, the Certified Public Accountant in the Technology (CITP). Prior to the development of technologies like today, corporate individuals manually executed as processing, collecting and the last using information. The presence of computerized information technology in the enterprise allows it to supply the users with the benefits and conveniences of implementing a system. This result is similar with the study by Wijayanti et al. (2009) in (Devi & Suartana, 2014) that users find the information systems more convenient and easier.

Companies with advanced information technology (computerization and integration) and supported by the latest technical support applications can sustain their business outcome by producing timely, reliable and accurate financial reports. It is expected to have a positive impact. [2]. The process of developing an accounting information system

faces obstacles and faces a serious problem for the company. Give the constraints, companies face the risk of failure and must be able to understand how the accounting information systems used by their companies will succeed. Predicting future events makes the planning process more difficult to achieve corporate goals. To remain competitive in ever-changing environmental conditions, management requires tools to plan and coordinate limited resources [3]. An information system is a collection of people, hardware, software, telecommunications networks, and data resources that collect, change, and distribute data within a company. Authorities can use information from information processing as a basis for decision-making in order to drive the company forward [1]. System success is closely tied to system performance. The criteria for establishing whether an information system is doing well or poorly are based on the satisfaction of both the accounting information system's users and the accounting information system's users [4]. Recent usage of SIDJP applies to all CPPs throughout Indonesia, not just specific DGT units. Since 2002, DGT's unit of work, KPP, has modernized its systems and organizational structure into function-oriented institutions that are no longer tax-specific. Large CPPs, medium CPPs, and primary CPPs are the three types of current CPPs [5]. In this investigation, the Attorney General's Office has identified six suspects. The impact of infrastructure and human resources on the adoption of computerized accounting information systems is examined in studies [6] and [7].

1.1. Technology Acceptance Model (TAM)

Several framework of the models have been developed to analyze the factors have influence the technology's adaption[9]. The Technology Acceptance. The purpose of the model is to convey to developer the success theory of the design, the evaluation of the plan, and the implementation of the information system. Since TRA is the basis for accepatnace's developing technology models for specific adaptations of information systems, technology acceptance models must adopt rational behavioral theories. The two models have something in common, both finding reasons for users to accept or reject information systems. Development of a Technology Acceptance Model Models define ways to (1) measure relevant behavioral parts of attitudes, (2) differentiate between beliefs and attitudes, and (3) determine external stimulation approaches. B. Beliefs, attitudes, and behaviors are tied to objective qualities and causal objects [9]. The technology acceptance model is composed of five components: (1) perceived usefulness, (2) perceived ease of use, (3) attitude toward usage, (4) purpose of use, and (5) actual use. It is made up of two ideas [10].

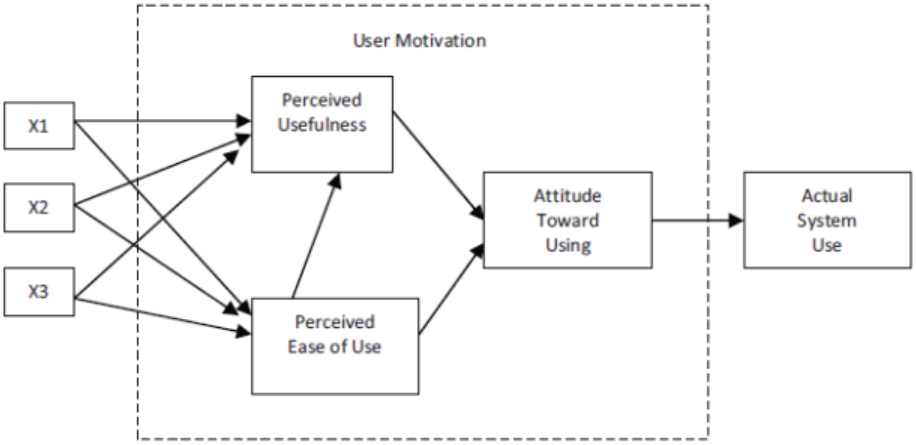

Figure 1: The First Model proposed by Fred Davis in 1989.

1.2. Accounting information system

As West Churchman (Krismaji, 2015) says, the system consists of a number the components works together to achieve different goals. The system has three characteristics. That is, (1) components are what you can see, hear, and feel, (2) processes are activities that cooherence the components contained in the system, and (3) goals are the ultimate goals. This achieved by adjusting these components [11]. (Krismaji, 2015) defines information as organized data with uses and benefits. To be useful, the information must include the following features: (1) relevance, (2) reliable, (3) complete, (4) quick, (5) easy to know, (6) Verifiable [11. The Commission defines accounting as a technique for efficiently capturing, classifying, and summarizing financial transactions and events on a currency-by-currency basis and interpreting the results. The definition of SIDJP by Directorate General of Taxation Regulation No. PER160 / PJ / 2006 on November 6, 2006 is ”Information system in tax management in the modern office environment of Directorate General Tax using networked hardware and software”. is. At the head office ”. According to the 13th edition of SE19 / PJ / 2007” [12]. The Tax Department’s information system supports the creation of accurate taxpayer data by actively participating in the monitoring of taxpayer data. The system creates reports accessible to KPP, regional offices, and DGT headquarters.

1.3. Implementation of Computerized Accounting Information Systems

The installation of a development accounting information system, according to (Alshbiel & AlAwaqleh, 2011), is to merge manual accounting science and its computer

applications by synchronizing manual chores and computer activities[6]. The system implementation providing a viable accounting information system. This process typically consists of planning, software development and testing, site preparation, and system installation and testing [13].

1.4. Infrastructure

In accordance with (B. Romney & Steinbart, 2005), the infrastructure information technology is technology-based devices for processing data, such as computers, peripherals, and devices for network communications [13]. Accounting departments can use this component to conduct crucial tasks inside a corporation, such as: 1. Keep track of the organization's activities, the resources affected by those activities, and the people involved in those activities. 2. Convert the data into information that can assist administrators in making decisions about activity planning, implementation, and monitoring. 3. Assign appropriate management to safeguard company assets, including corporate data, and ensure that it is accurate and trustworthy when needed.

1.5. Human Resources

Those who are organization's member, with a role and function.Non-physical potential refers to an employee's capability based on knowledge, intelligence, expertise, skills, and interpersonal background, whereas physical potential relates to the employee's physical capabilities [14] . Human resource development is the ability of an individual, organization or system to find the function or power to reach its goals effectively. the ability must be considered the ability to perform, produce output and results. [15]. According to Rivai & Sagala (2011), in order to reconcile talent requirements with corporate management and advancement, talent must be managed effectively and professionally. This balance is the most critical factor in a company's ability to thrive and grow naturally and successfully. The productivity of a company's personnel has a significant impact on its growth. Human resources should be able to operate productively if human resources management is done professionally. Recruitment, selection, rating, skill rating, training, and career development should all be part of professional resource management[16].

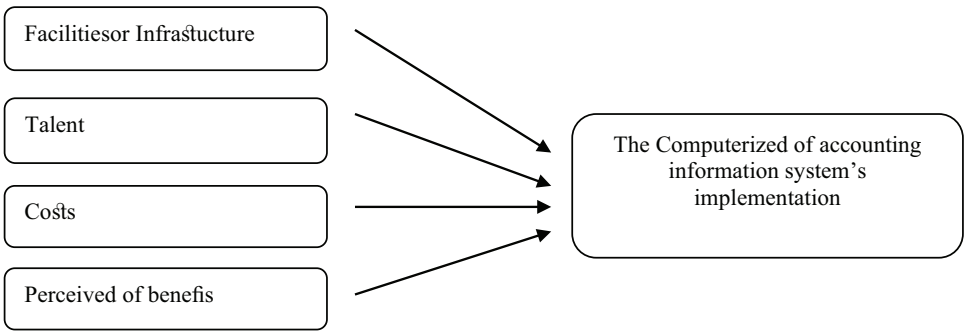

Figure 2: Framework.

1.6. Cost

In Accordance with (Mulyadi, 2010), the broadest cost is the sacrifice of financial resources, measured in monetary terms, that are or may be incurred for a particular purpose [17]. In a narrow sense, cost can be interpreted as sacrificing economic resources to acquire an asset. (Haleem, 2016) concluded that cost is directly and significantly related to technology acceptance [7]. When setup costs are high, companies hesitate to adopt a computerized accounting system. As a result, new types of hardware and software are needed to assure the efficacy and efficiency of computerized accounting systems, as well as significant training expenditures to keep up with the latest technology and software. Will occur [7].

1.7. Perception of Benefit

Revenue recognition is the level at which someone believes that using a particular system can increase outome. This theory can be explained the benefits of the system to users in terms of task execution and productivity, main task, and all the benefits. If users are confident and the technology is not difficult to use, they can enjoy best benefits and increase the outcome. The higher the quality of the information technology system, the greater the profit and can determine the successful implementation of the information technology system [10].

2. METHODOLOGY

Quantitative methods are the data is available in numerical form as a result of observation or measurement [18]. The Pratama Tax Office in Padang uses this method to investigate the infrastructure, personnel, expenses, and perceived benefits of installing a

computerized accounting information system. Employees of the Tax Office who installed a Technology Accounting system, employees who work in finance, and employees who were authorized to be questioned were the subjects of this study.

2.1. Data Sources

The data used in this survey is a mix of primary and secondary data, with the primary data coming from the respondents' responses to the survey. The respondents to this survey were employees Tax Office in Padang city. Secondary data from books, magazine literature, articles and websites.

2.2. Data collection technique

Questionnaires are used as the primary data collection tool for using the questions asked by respondents. The data collection method is carried out using a questionnaire distributed by a spokesperson for the tax office.

2.3. Data analysis technique

The data analysis techniques used in this study are:

a. Test Reliability

According to (Gozhali, 2011), answers to a question presented to someone are regarded credible if they are constant or stable over time [19]. Cronbach Alpha is a statistical test that determines whether or not a variable is dependable. If the Cronbach's alpha value is greater than 0.70, the assertion is reliable because the configuration or variable is reliable. The independent variables work together in the dependent variable if Cronbach Alpha is Ftable. 2) R2 test (coefficient of determination) The R2 test is used to determine how well the model can explain the variation in the dependent variable.. In Accordance with (Ghozali, 201i), in regression equations that use multiple independent variables, the R2 value often used to describe the regression equation is the approximation factor of.

The number of independent variables in the regression model will be taken into account. [21] 2) According to (Gozhali, 2011), the T-test fundamentally illustrates how the independent variable's effect explains the variation of the dependent variable

TABLE 1: Reliability and Reliability Test Results

Variables	Cronbach's Alpha	Corrected item	Information
Infrastructure	0,761	0,444	Reliable
Human Resource	0,678	0,528	Reliable
Costs	0,689	0,666	Reliable
Perceived of benefit	0,623	0,816	Reliable
		0,477	
Computerized accounting information system's implementation	0,885	0,528	Reliable
Source: Primary data processed, SPSS 20			

individually. If t count> t table or p value 0.05, the independent variable has no effect on the dependent variable [19].

3. RESULTS AND DISCUSSION

3.1. Reliability Test Results

The Cronbach's Alpha test was employed to assess reliability. If a variable's Cronbach's Alpha value is more than 0.60, it is said to be dependable.

The table above shows the Cronbach's alpha values for infrastructure variable 0.761, talent 0.678, cost 0.689, usefulness perception 0.623, and computational SIA implementation 0.885. From this, we can conclude that the Cronbach's alpha value is greater than 0.60 and that the questionnaire is reliable. The table above shows SIA's infrastructure, staff, costs, usage awareness, simplicity awareness, and implementation variables. For computerization, the calculated r-values (0.444, 0.528, 0.666, 0.816, 0.528) are r-tables (0.3338) and have positive values so that the question or indicator used is validated.

3.2. Normality Test Results

The Kolmogorov-Smirnov test used to perform the normality test. The results of the Kolmogorov-Smirnov test are listed in the following table.

3.3. Multicollinearity Test Results

The following are the results of multicollinearity tests using tolerance values and VIF, as follows:

Table 2: Normality Test Results Using Kolmogorov Smirnov

One-Sample Kolmogorov-Smirnov Test						
		TI	TSDM	TB	TPKEB	TSIAK
N		50	50	50	50	50
Normal Parameters[a]	Mean	12.94	20.90	11.36	17.16	21.40
	Std. Deviation	1.284	2.131	1.804	2.093	2.231
Most Extreme Differences	Absolute	.208	.136	.199	.150	.143
	Positive	.208	.124	.115	.130	.111
	Negative	-.155	-.136	-.199	-.150	-.143
Kolmogorov-Smirnov Z		1.470	.964	1.404	1.059	1.013
Asymp. Sig. (2-tailed)		.027	.310	.039	.212	.256
a. Test distribution is Normal						
The data are normally distributed. The value of Asymp. Sig with an amount of 0,027,0,310,0,039,0,212,0,256 greater than 0.05.						

Table 3: Multicollinearity Test Results

Model	CS		Explanation
	Tolerance	VIF	
	0,871	1,148	no multicollinearity
I			
SDM	0,832	1,201	no multicollinearity
B	0,936	1,068	no multicollinearity
PKEB	0,988	1,114	no multicollinearity
Source: Primary data processed, SPSS 20			

The tolerance is close to 1 or> 0.10 and the VIF value is about 1 or <10 for each variable. Infrastructure tolerances are 0.871, talent is 0.832, costs are 0.936, and perceived usefulness is 0.988. Infrastructure VIF is 1,148, talent is 1,201, cost is 1,068, and usefulness is 1,114.

3.4. Results of non-uniform dispersibility test.

Below are the results of the Glejser method:

The result is the probability value of infrastructure is 0.623, the probability of human resources is 0.570, the cost is 0.153, the recognition of profit is 0.611, and the ease of recognition is 0.667. From this we can conclude that there is no non-uniform variance for all independent variables because the probability value is greater than 0.05.

Table 4: Heteroscedasticity Test Results

V	Sig	Explnation
I	0,623	no heteroscedasticity
HS	0,570	no heteroscedasticity
C	0,153	no heteroscedasticity
PB	0,611	no heteroscedasticity

Table 5: Multiple Linear Regression Test Results

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	8.291	3.651		2.271	.028		
	TI	-.305	.222	-.176	-1.373	.176	.871	1.148
	TSDM	.428	.137	.408	3.121	.003	.832	1.201
	TB	.167	.153	.135	1.094	.280	.936	1.068
	TPKEB	.363	.134	.340	2.703	.010	.898	1.114
a. Dependent Variable: TSIAK								

3.5. Multiple Linear Regression Test Results

Can be found in the table below:

From the table above, we can see that the multiple linear regression equation for this study is ISIAK = 8.291-0.305 X1 + 0.428 X2 + 0.167 X3 + 0.363 X4 + e .

The interpretation of each variable coefficient is as follows.

1. This survey's constant value is 8.291. If all five variables are zero, the computerized accounting information system implementation value Y remains constant at 8,291.

2. Infrastructure is a variable factor (X1) with a value of 0.305. This indicates that if the infrastructure value is enhanced by one unit, the value of the computerized accounting information system Y is increased by one unit. It is lowered by 0.305 if the other variables remain constant.

3. The variable talent factor (X2) is 0.428. That is, if the value of a talent increases by one unit, it increases by 0.428 if the value of implementing a computerized accounting information system Y other variables remain.

4. The variation coefficient is 0.167. That is, if the cost value (X3) increases by one unit, the implementation value of the computerized accounting information system Y increases by 0.167 assuming the other variables remain constant.

5. 0.363 is the variable utility recognition factor (X4). This means that the value of the computerized accounting information system implementation increases by one unit

Table 6: F Test Results

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	87.621	4	21.905	6.304	.000[a]
	Residual	156.379	45	3.475		
	Total	244.000	49			
a. Predictors: (Constant), TPKEB, TB, TI, TSDM						
b. Dependent Variable: TSIAK						
Source: Primary data processed, SPSS 20						

Table 7: Determination Coefficient Test Results (R2)

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.599[a]	.359	.302	1.864	1.719
a. Predictors: (Constant), TPKEB, TB, TI, TSDM					
b. Dependent Variable: TSIAK					

when the value of usefulness recognition grows by one unit. It will decrease by 0.363 if other variables remain constant.

3.6. Model Accuracy Test

1) F Test Results

The table below shows the outcomes of the F test. The F test is used to determine the adequacy of a regression model, and the rejection area is defined by the p-value (Sig.) <α

The F count is 6.304, as shown in the table above. This indicates that the F count value exceeds 2.55 and the significance level is 0.000. To put it another way, the regression model used is appropriate for this study because it is less than 0.05 while still having a significant effect.

2) Results of the coefficient of determination (R2) test The coefficient of determination (R2) test is performed to see how well the independent variable can explain the dependent variable's capabilities. Infrastructure, staff, cost, perceived usefulness, and perceived ease were all employed as independent factors in this study. A computerized application of SIA is the dependant variable. The coefficient of determination (R-squared) test results are shown in the table below.

Table 8: Test Results t

Model	t count	t tabel	Sig	Information
(Constant)	2,271	2,045	0,000	
I	-1,371	2,045	0,176	No effect
SDM	3,121	2,045	0,003	Significant Positive Effect
B	1,094	2,045	0,228	No Effect
PKEB	2,703	2,045	0,010	Significant Positive Effect
Source: Primary data processed, SPSS 20				

The coefficient of determination is 0.359, as seen in the table above. Infrastructure variables, human resources, expenses, awareness of usefulness, and perceived ease account for 35.9% of SIA's computerized implementation variables, according to the report. Variables other than the survey model account for the remaining 64.1 percent.

3) Test result t

On an individual level, the t-test is performed to determine the influence of each independent variable on the dependent variable. The findings of the whole t-test for this study are shown in this table.

The significance level for this test is 0.05. The t-count value for each independent variable is shown in the table above. H0 is eliminated if the t count is greater than the t table. This indicates that the dependent variable is affected by the independent variable. 2) Infrastructure determinant The infrastructure variable receives a count of 1.371 as a result of the t-test analysis. t is a table with a value of 2.045 and a probability of 0.003. H0 will be rejected if the value is less than 0.05. It has a substantial impact on the computerized SIA implementation.4) Variable cost The value of the operation 1.094 & lt; yielded the outcome of the t-test analysis of the cost variable. A t-table with a probability value of 0.228 and a size of 2.045. This means that if H0 is more than 0.05, it is acceptable. Alternatively, keep in mind that the cost of implementing automated SIA has no bearing on its success. Perceptual Variables of Usefulness The t-test study of Usefulness Perceptual Variables revealed a t-count value of 2.375, indicating that useful perceptions have a considerable impact on the adoption of computerized SIA.

4. CONCLUSION

Based on the findings obtained, the following conclusions can be drawn :

1. Infrastructure has no bearing on the deployment of computerized accounting information systems. The t-test results reveal the findings of this research. The probability value is 0.176, which is more than 0.05, because the t count (1,373) is less than the t table (2,045). This hypothesis test contradicts the findings of (Alshbiel & AlAwaqleh, 2011) and (Haleem, 2016), which revealed that The establishment of computerized accounting information systems is significantly aided by infrastructure. [6,7] Masu. This can occur in your infrastructure, and certain flaws may go unreported, such as: B. Inadequate modern programs and networks, as well as a lack of databases to assist in the implementation of computerized accounting information systems.

2. The development of computerized accounting information systems has been aided by human resources. The t-test results reveal the findings of this research. The t-arithmetic value (3.121) is more than the t-table value (2.045) in the t-test, suggesting that the probability value is 0.003, which is less than 0.05. In the case of this hypothesis, a positive regression coefficient value indicates that the better the people who contribute to the system's use, the better the existing computerized accounting information system's implementation. The outcomes of this hypothesis test back up those of (Alshbiel & AlAwaqleh, 2011) and (Haleem, 2016), demonstrating that talent has a considerable favorable impact on the deployment of computerized accounting information systems. increase.

3. Costs have no bearing on the installation of computerized accounting information systems. The t-test results reveal the findings of this research. This means that the t table (2.045) is less than the t count (1.094), and the probability value is 0.280, which is greater than 0.05. The results of this hypothesis test show that costs are significantly positively correlated with computerized accounting information systems, in contrast to the findings of (Alshbiel & AlAwaqleh, 2011), which show that costs are significantly negatively correlated with computerized accounting information systems. Lack of funds for infrastructure improvements, employee training, and the establishment of modern networks for the use of computerized accounting information systems are all factors that can contribute to this.

4. The implementation of computerized accounting information systems is influenced by user awareness. The results of the t-test can back up the findings of this survey. The probability value is 0.010, and the t-count (2.703) value is smaller than the t-table (2.045). This indicates a value of less than 0.05. This demonstrates how simple it is for staff to use a computerized accounting information system. Employees will be able to get the most out of the labor involved in creating a computerized information system as a result of this, making their job much easier.

References

[1] Devi NLNS, Suartana IW. Analysis of technology acceptance model (tam) on the use of information systems at Nusa Dua Beach Hotel & Spa. E-Jurnal Akuntansi Universitas Udayana. 2014;6(1):167–184.

[2] Ratningsih KI, Suaryana IGNA. The effect of information technology sophistication, management participation, and knowledge of accounting managers on the effectiveness of accounting information systems. E-Jurnal Akuntansi. 2014;6(1):1–16.

[3] Dharmayanti NM, Suardikha MS. Analysis of the factors that affect management performance due to the use of accounting information systems. E-Jurnal Akuntansi Universitas Udayana. 2015;2:409–421.

[4] Mardiana IGEP, Sinarwati NK, Atmadja AT. Analysis of the factors that affect the performance of village credit (LPD) in the susut sub-district. E-Journal S1 Ak Universitas Pendidikan Ganesha. 2014;2(1).

[5] Lestari M, Kertahadi, Suyadi I. Information system effectiveness of the directorate general of taxes (sidjp). Jurnal Administrasi Bisnis (JAB). 2013;6(2):1–6.

[6] Alshbiel SO, Al-Awaqleh QA. Factors affecting the applicability of the computerized accounting system. International Research Journal of Finance and Economics. ISSN 1450-2887 Issue 64

[7] Haleem A. The factor affecting computerized accounting system with reference to government department in the ampara district. EPRA International Journal of Economic and Business Review. 2016;4(7):130–139.

[8] Soerosemito,V.N Effect of infrastructure, human resources, managerial performance, e-decision, and software on the implementation of a computerized accounting information system (Case Study at PT. Sang Hyang Seri Persero). UNS; Surakarta

[9] Muslichah I. Analysis of antecedents on attitudes and intentions to use BlackBerry on the basis of the technology acceptance model. Jurnal Siasat Bisnis. 2015;19(2):170–183. https://doi.org/10.20885/jsb.vol19.iss2.art7

[10] Davis FD. Perceived usefulness, perceived ease of use, and user acceptance of information technology. Management Information Systems Quarterly September 1989;13(13):319-339.

[11] Krismiaji Accounting information system. 2015 Yogyakarta: STIM YKPN

[12] Saputra R, Astuti ES, Rahardjo K. Analysis of the use of the Directorate General of Taxes (SIDJP) information system application and employee performance (A study at the Surabaya Gubeng Pratama Tax Service Office). Jurnal Perpajakan. 2014;3(1):1–5.

[13] B. Romney M, Steinbart PJ. Accounting information system. Fitriasari D, Kwary DA, editors. Salemba Empat; Jakarta 2002

[14] Ambar T, Sulistiyani, Rosidah Human resource management. Graha Ilmu Yogyakarta 2009.

[15] Winidyaningrum C, Rahmawati R The influence of human resources and the use of information technology on the reliability and timeliness of local government financial reporting with accounting internal control intervening variable. Paper presented at: Seminar Nasional Akuntansi 13-14 Oktober Purwokerto ;2010

[16] Rivai V, Sagala EJ. Human resource management for companies from theory to practice. PT Raja Grafindo Jakarta 2011.

[17] Mulyadi M Accounting system. Salemba Empat Yogyakarta 2010.

[18] Widoyoko EP. Research instrument preparation techniques. Yogyakarta: Pustaka Pelajar; 2012.

[19] Gozhali I. Multivariate analysis application with spss program. BP Universitas Diponegoro;Semarang 2011.

[20] Supomo B, Indriantoro N. Business research methodology. BFEE UGM; 2002.

[21] Ghozali I. Multivariate analysis application with IBM SPSS program. Universitas Diponegoro Semarang 2012.