

Research Paper

The Influence of Personal Technical Ability and Work Experience on the Effectiveness of Using Accounting Information Systems with an Educational Background as Moderation

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Abstract

This study aimed to determine the effect of personal technical ability and work experience on the effectiveness of using accounting information systems with an educational background as a moderator. This research was conducted at PT Komatsu And Marketing Support Indonesia. The research sample consisted of 45 employees of PT Komatsu And Marketing Support Indonesia employees. The sampling technique uses a saturated sampling method where the entire population is used as a research sample. The research findings indicate that personal technical skills and work experience positively impact the effectiveness of accounting information systems. Meanwhile, the relationship between personal technical ability and work experience on the effectiveness of using accounting information systems is not moderated by educational background.

Keywords: Personal Engineering Capability, Work Experience, Effectiveness Of Using Accounting Information Systems, Education Background.

Abstrak

Tujuan dari penelitian ini adalah untuk mengetahui pengaruh kemampuan teknis personal dan pengalaman kerja terhadap efektivitas penggunaan sistem informasi akuntansi dengan latar belakang pendidikan sebagai moderator. Penelitian ini dilakukan di PT Komatsu And Marketing Support Indonesia. Sampel penelitian ini terdiri dari 45 karyawan PT Komatsu And Marketing Support Indonesia. Teknik pengambilan sampel menggunakan metode sampling jenuh dimana seluruh populasi dijadikan sebagai sampel penelitian. Temuan penelitian menunjukkan bahwa keterampilan teknis pribadi dan pengalaman kerja memiliki dampak positif terhadap efektivitas sistem informasi akuntansi. Sedangkan hubungan antara kemampuan teknis personal dan pengalaman kerja terhadap efektivitas penggunaan sistem informasi akuntansi tidak dimoderasi oleh latar belakang pendidikan.

Kata Kunci: Kemampuan Teknik Personal, Pengalaman Kerja, Efektivitas Penggunaan Sistem Informasi Akuntansi, Latar Belakang Pendidikan.

JEL Classification: I2, P4

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1. Introduction

Companies must compete in the current era of globalization. Many new businesses have emerged in the industry, and the current economic climate has resulted in fierce competition among them. Within the company, competition drives each company to improve its performance in order to meet goals. Companies must make the most of their existing capabilities to excel in today's increasingly competitive environment.

Managers must be able to maintain the company's viability and control the organization for the company's goals to be met. Managers require accounting information as a basis for evidence of responsibility in managing the company when making decisions and determining how far the company can survive. Many other parties require accounting information in addition to managers as a tool for decision-making. The report is required by at least two internal and external parties. Internal parties are those within the company, such as managers, directors, and employees. External parties include the company's owners, creditors, and the government on which it is based.

Accounting information is critical for understanding a company's or organization's financial situation. The financial report is an example of accounting information that is both necessary and important. Accounting information systems have a significant impact on business success. Accounting information systems can assist companies in preparing financial reports that require precision and accuracy.

The success of the accounting information system in realizing information in a timely, accurate, and reliable manner is defined as its effectiveness (Ratnaningsih, 2016). The success of the performance between the system and the user is critical to the effectiveness of the accounting information system (user). The possibility of system failure within a company can reduce the inefficiency of the accounting information system.

Top management, also known as executive management, is one factor that influences the effectiveness of accounting information systems. Top management (top management) is also known as the executive officer, whose job is to plan the company's activities and strategies in general and direct the company's operations (Akhmad & Moh, 2013). Top management is responsible for setting the company's goals and establishing operational policies to ensure the company's performance runs smoothly.

Personal technical ability is the ability to use it to complete tasks. The greater the user's technical ability with the information system he owns, the more familiar he is with the information system in terms of the accounting information system used. So that the user uses the accounting information system to complete his tasks more frequently, which can increase user satisfaction with the accounting information system used user. companies (Dharmawan & Ardianto, 2017).

Work experience refers to a person's ability that has been applied to his work in the past and the present. Work experience will also influence the long-term viability of an information system. Work experience is very useful for someone doing work because having enough work experience will improve that person's performance. Sufficient knowledge and ability will motivate users to assess their ability to analyze and express ideas (Ilham, 2022).

The accounting information system will be effective if it is offset by a training program to produce more mature and competent abilities. This situation should be held for employees in running the computerized accounting information system so that employees are more skilled in using the existing system and that the training program will benefit companies and system users in carrying out company operations (Ramadhan et al., 2019).

Because of their extensive educational background, they can also provide useful knowledge. Educational background influences the use of accounting information systems in businesses. Education significantly impacts a person's ability to absorb modern technology and develop the capacity for long-term growth and development. Someone with a high level of education will impact his mindset, attitude, and behavior. Higher education, higher quality education, and having

skills that supplement formal education allow them to earn higher profits (Hendrayani, 2020).

Several previous researchers have researched the effectiveness of using accounting information systems, including Kusumawati & Ayu (2019) and Wahyuni et al. (2018), which show that individual performance and personal technical abilities have a positive effect on the effectiveness of accounting information systems. Work experience has no bearing on the effectiveness of accounting information systems. Sitorus (2017) found that educational background and accounting knowledge significantly impact the use of accounting information systems in subsequent research. According to Indrianto & Suputra's (2020) research, personal techniques have a significant positive effect on the effectiveness of using SIA. The involvement of users has a significant positive effect on the effectiveness of SIA. Personal technical ability and user involvement are strengthened by training in the effective use of an AIS.

2. Literature Review and Hypothesis

According to Dharmawan & Ardianto (2017), personal technical ability is the user's ability to complete the tasks assigned. TAM theory is a related theory about information systems that includes a model of individual attitudes toward accepting and using technology. TAM explained that benefits and convenience influence individual attitudes toward accepting and using technology. According to the theory, the more a person understands the benefits of using the SIA, the more likely that person will accept and use the SIA. Personal abilities have a positive effect on the effectiveness of accounting information systems, according to research conducted by Kusumawati and Ayu (2019), Indrianto & Suputra (2020), and Nugroho et al. (2018).

H1: Personal Technical Ability Has a Positive Influence on the Effective Use of Accounting Information Systems

There is a factor of usability in TAM theory, namely the extent to which a person believes that using an information system is simple and does not require much effort from the user is defined as the ease of use. Work experience can increase a person's knowledge, understanding, and skills because they continue to do the same activities over and over. Users can become more effective in using information systems as they gain work experience. Work experience, according to Ningtias & Diatmika (2020), has a positive influence on the effectiveness of using accounting information systems.

H2: Work Experience Has a Positive Influence on the Effectiveness of Using Accounting Information Systems

Education is a process by which someone broadens their knowledge and improves their abilities. Individuals with good personal techniques and a good educational background are expected to increase the effectiveness of accounting information systems. According to Sundari et al. (2016), education-based knowledge can help a person understand the benefits of using the accounting information system. The abilities gained through the educational process can also make someone feel at ease when running or operating an information system. According to Sitorus (2017), educational background significantly impacts the use of accounting information systems.

H3: Educational Background Can Moderate the Relationship between Personal Technical Ability and Effective Use of Accounting Information Systems

Education is a human resource development effort, particularly to increase professionalism. Educational background is a factor that influences work experience; a person's educational background in the past will influence how knowledge or skills are formed (Handoko, 2013). It is expected that the more work experience employees have and their educational background, the more effective the use of accounting information systems in businesses will be. Employees' formal education will serve as the foundation for making decisions that will lead to success, especially when combined with qualified experience, enhancing these employees' abilities (Arya & Aristia, 2022).

H4: Educational Background Can Moderate the Relationship between Work Experience and Effective Use of Accounting Information Systems

3. Data and Method

This study is an empirical approach that employs a questionnaire survey method. This study's data is based on primary sources. In this study, data was gathered through the use of a questionnaire graded on a Likert scale. The population determined in this study is 45 employees from PT Komatsu Marketing And Support Indonesia's divisions that use accounting information systems. Researchers used non-probability sampling with saturation sampling in this study. The data analysis model in this study used multiple linear regression models and the Moderated Regression Analysis (MRA) test. The analysis model used is as follows:

- a. Regression Equation Model 1 (Multiple Linear Regression Analysis):

$$Y = a + b_1 X_1 + b_2 X_2 + e$$

- b. Regression Equation Model 2 (MRA):

$$Y = a + b_1 X_1 + b_2 (X_1 * Z) + e$$

- c. Model 3 Regression Equation (MRA):

$$Y = a + b_1 X_2 + b_2 (X_2 * Z) + e$$

Where :

- a : Constant
 b : Regression coefficient
 Y : Effective Use of Accounting Information Systems
 X1 : Personal Technical Ability
 X2 : Work Experience
 Z : Educational Background
 e : Error coefficient

4. Results

Descriptive statistical analysis

Table 1 Results of Descriptive Statistical Analysis test

	Personal Technical Ability Work	Work Experience	Effective Use of AIS
Valid	45	45	45
N Missin g	0	0	0
Mean	15.82	26.36	40.36
Std. Dev.	2.640	2.805	5.944
Variance	6.968	7.871	35.325
Range	11	9	21
Minimum	9	21	29
Maximum	20	30	50

Source: Processed Data, 2022

The variable effectiveness of using accounting information systems (Y) has a maximum value of 50 and a minimum value of 29. Furthermore, the accounting information system effectiveness variable has a mean value of 40.36 and a standard deviation of 5,944.

Data Quality Test

Validity test

Table 2 Result of the Validity test

Effectiveness of Using Accounting Information Systems Variable			
No.	r-count	r-table	Decision
Point 1	0.845	0.294	Valid
Point 2	0.872	0.294	Valid
Point 3	0.892	0.294	Valid
Point 4	0.871	0.294	Valid
Point 5	0.812	0.294	Valid
Point 6	0.712	0.294	Valid
Point 7	0.916	0.294	Valid
Point 8	0.897	0.294	Valid
Point 9	0.892	0.294	Valid
Point 10	0.906	0.294	Valid
Personal Engineering Ability Variable			
No.	rcount	rtable	Decision
Point 1	0.857	0.294	Valid
Point 2	0.879	0.294	Valid
Point 3	0.927	0.294	Valid
Point 4	0.944	0.294	Valid
Work Experience Variables			
No.	rcount	rtable	Decision
Point 1	0.845	0.294	Valid
Point 2	0.872	0.294	Valid
Point 3	0.892	0.294	Valid
Point 4	0.871	0.294	Valid
Point 5	0.812	0.294	Valid
Point 6	0.712	0.294	Valid

Source: Processed Data, 2022

The significance values in Table 2 are less than 0.05, and the calculated r-value is higher than the r-table value. According to the questionnaire data, all statement items are valid and appropriate for data collection in this study.

Reliability Test

Table 3 Result of the Reliability test

Variable	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Effectiveness of Using Accounting Information Systems	0.961	0.963	10
Personal Engineering Ability	0.922	0.924	4

Work Experience	0.908	0.911	6
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Source: Processed Data, 2022

According to Table 3, every variable has a Cronbach Alpha (α) greater than 0.70. This result means that all of the variables in this study are considered reliable.

Classical Assumption Test

Normality test

Table 4 Result of the Normality test

One-Sample Kolmogorov-Smirnov Test		
		Unstandardized Residual
N		45
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	3.98374937
Most Extreme Differences	Absolute	0.131
	Positive	0.131
	Negative	-0.116
Test Statistic		0.131
Asymp. Sig. (2-tailed)		0.050 ^c
Exact Sig. (2-tailed)		0.386
Point Probability		0.000

Source: Processed Data, 2022

In Table 4, the normality test results are $0.386 > 0.05$, so the data in this study are normally distributed.

Multicollinearity Test

Table 5 Result of Multicollinearity test

Model	<i>Collinearity statistics</i>	
	<i>Tolerance</i>	VIF
Personal Engineering Ability (X1)	.938	1.066
Work Experience (X2)	.938	1.066

Source: Processed Data, 2022

This study obtained a tolerance value of > 10 and a VIF value of < 10 for all variables. So there is no multicollinearity between independent variables.

Heteroscedasticity Test

Table 6 Result of Heteroscedasticity test

Variable	Result
Personal Engineering Ability (X1)	0.336
Work Experience (X2)	0.351

Source: Processed Data, 2022

In Table 6, the results of the two independent variables show no heteroscedasticity.

Multiple Linear Regression Analysis

Table 7 Results of Multiple Linear Regression Analysis test

		Coefficients			
		Unstandardized Coefficients		Standardized Coefficients	
Model		B	Std. Error	Beta	t
1	(Constant)	5.636	6.255		0.901
	PTA	1.476	0.240	0.659	6.139
	WE	0.435	0.226	0.207	1.923

Source: Processed Data, 2022

The multiple linear regression equation is as follows:

$$Y = 5.636 + 1.476X_1 + 0.435X_2 + e$$

Hypothesis Test

Determination Coefficient Test (R^2)

Table 8 Results of the Coefficient of Determination (R^2) test

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.738 ^a	0.545	0.523	4.07750

Source: Processed Data, 2022

In Table 8, the value of the adjusted R square is 0.523, which means that the independent variables influence personal technical abilities (X_1) and work experience (X_2) on the dependent variable Effectiveness of Using Accounting Information Systems (Y) of 52.3%.

T Test

The T-test or partial test in table 7 is explained as follows:

1. Personal technical ability (X_1) obtained t count is greater than t table ($6.139 > 1.302$) or a sig value of $0.000 < 0.10$. Then H_{01} is rejected while H_1 is accepted, which shows that the personal technical ability indicator (X_1) positively affects the effectiveness of the use of partial accounting information systems (Y).
2. Work experience (X_2) Obtained t count greater than t table ($1.923 > 1.302$) or a sig value of $0.061 < 0.10$. Then H_{02} is rejected while H_2 is accepted, which shows that the work experience indicator (X_2) positively affects the effectiveness of using accounting information systems in part (Y).

Moderated Regression Analysis (MRA) Test**Table 9 Result of Moderated Regression Analysis (MRA) test**

		Coefficients				
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	
1	(Constant)	-44.985	53.384		-0.843	0.405
	PTA	-1.475	1.686	-0.659	-0.875	0.387
	WE	3.277	1.971	1.557	1.663	0.104
	EB	2.273	1.852	1.386	1.228	0.227
	M1	0.092	0.055	1.760	1.668	0.103
	M2	-0.112	0.068	-3.033	-1.658	0.105

Source: Processed Data, 2022

The Moderated Regression Analysis equation is as follows:

$$Y = -44.985 + -1.475X1 + 3.277X2 + 2.273Z + 0.092X1Z + -0.112X2Z + e$$

5. Discussion**The Effect of Personal Engineering Ability on the Effectiveness of Accounting Information Systems**

According to the first hypothesis in this study, personal technical ability positively affects the effectiveness of using accounting information systems. The better a user's technical abilities are, the better his capabilities and more effective his use of accounting information systems will be. According to the TAM theory of individual attitudes toward accepting and using technology, the findings of this study show that personal technical skills play a significant role in the effectiveness of using accounting information systems at PT Komatsu and Marketing Support Indonesia. This condition is because a user who is reliable and understands the system will affect the effectiveness of using the information system. The findings of this study are consistent with those of Kusumawati & Ayu (2019), Indrianto & Suputra (2020), and Nugroho et al. (2018).

The Effect of Work Experience on the Effectiveness of Accounting Information Systems

According to the second hypothesis, work experience positively affects the effectiveness of accounting information systems. According to the TAM theory of perception of real use, someone will be happy to use the system if they believe it is not difficult to use and has been proven to increase their productivity, which is reflected in the actual conditions of use. This result demonstrates that employees with sufficient work experience will be able to operate the system properly and can make employees more effective in using information systems. These findings are consistent with Sari & Indraswarawati's research (2020).

The Effect of Educational Background on the Relationship between Personal Technical Ability and Effective Use of Accounting Information Systems

According to the third hypothesis, personal technical abilities and the effectiveness of using accounting information systems cannot be moderated by educational background. This finding is presumably because the educational background of PT Komatsu Marketing And Support Indonesia employees needs to determine personal technical abilities. These employees' technical abilities cause them to work efficiently by utilizing their expertise and knowledge. Even though the

employee does not have a high educational background, it is deemed sufficient to support an effective accounting information system. This study's findings align with the findings of research by Kusumawati & Ayu (2019).

The Effect of Educational Background on the Relationship between Work Experience and the Effectiveness of Accounting Information Systems

According to the fourth hypothesis, the educational background cannot moderate the relationship between work experience and the effectiveness of accounting information systems. This finding is presumably because the educational backgrounds of employees at PT Komatsu and Marketing Support Indonesia are less diverse, with the diploma and undergraduate education being the most common. An employee's educational background does not guarantee his performance at PT Komatsu and Marketing Support Indonesia. Even if the employee has a high school education level and sufficient experience, it is assumed that the employee already has the knowledge, skills, and qualified attitude to complete the job according to set rules. This research is in line with research conducted by Wulandari (2020).

6. Conclusion

Based on the data analysis result, the conclusion that can be drawn from this study is that Personal Engineering Ability has a positive effect on the effectiveness of using accounting information systems. The better a person's engineering skills, the better their skills, and the more effective the use of accounting information systems. Work experience has a positive effect on the effectiveness of the use of accounting information systems; this shows that employees with sufficient work experience will be able to operate the system correctly and can make employees more effective in using information systems. Personal technical skills and the effectiveness of using accounting information systems are not moderated by educational background. Personal technical abilities are not determined by how highly employees take their educational background, but by utilizing their expertise and knowledge, employees carry out work efficiently. Educational background does not moderate work experience and effectiveness of using the Accounting Information System; even though the employee does not have a high educational background, this is considered sufficient to support the effective use of the accounting information system. Employees' educational backgrounds are less diverse and are dominated by employees with diplomas and undergraduate education backgrounds. Even though employees with a high school education level have sufficient experience, it is assumed that these employees already have the knowledge, skills, and attitudes that are qualified to complete the work under established rules.

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