The Effect of Professional Training, Computer Self-Efficacy, and Technology Acceptance Model on Digital Fraud Detection with Audit Digitalization as A Moderating Variable

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ABSTRACT

This research examines the influence of professional training, computer self-efficacy, and technology acceptance model on digital fraud detection with audit digitalization as a moderation variable. Sampling was done using saturated sampling to select the respondents. The respondents in this research were 79 internal Auditors at a conventional state-owned bank in Sumatra Selatan—method analysis using regression analysis. The F-test result shows that professional training, computer self-efficacy, and technology acceptance models significantly affect digital fraud detection. T-test results show that professional training does not substantially affect digital fraud detection. In contrast, computer self-efficacy and technology acceptance models have a significant effect on digital fraud detection partially. MRA test results, audit digitalization, is a predictor moderation for the influence of professional training, computer self-efficacy, and technology acceptance model on digital fraud detection.

Keywords: professional training, computer self-efficacy, technology acceptance model, digital fraud detection, audit digitalization.

1. INTRODUCTION

The world is in the 4.0 revolution, where everything has been digitized. Technology's rapid and complex development will be the root of societal changes. Technology utilizes many things, and cheating can even be done by technology. Along with the development of an increasingly complex business world, crimes in the form of fraud are also developing, especially in the digital environment. There are 486,000 public reports on criminal acts of information and electronic transactions reported by Kominfo from 2017 to 2022. Online transaction fraud, with approximately 405,000 reports, is the most common type of fraud.

According to the American Certified Public Accountant (ACPA), fraud is a legal concept, and auditors determine whether fraud has occurred. According to [1] fraud, also known as fraud, is an action that is carried out intentionally so that it unconsciously causes losses to asset owners and is profitable for the perpetrators. Pressure from the environment to commit such fraud and take advantage of existing opportunities is a factor that can result in fraud being carried out; this factor is usually rationalized as a form of human nature.

Today, banks play a significant role in driving economic development in a country. Banks are indispensable for conducting financial transactions in almost all industries, including industry, trade, agriculture, plantations, services, and housing. All current and future businesses require banks to carry out financial activities to ensure their operations run smoothly. Mobile banking is a banking application that is loved by the public today. With mobile banking, customers don't have to come to the ATM to check their balance; even setting up an account no longer requires going to the bank. Download M-Banking, and then we can directly connect with the bank's customer service. However, in addition to these conveniences, there are also weaknesses that we must face. One of them is account breach through M-Banking, which is currently rampant.

Some criminals in Indonesia often break into customers' money through mobile banking using the victim's cell phone number. They are usually indiscriminate when looking for targets. The case of senior journalist Ilham Bintang

being robbed from m-banking in 2020 is one of them. He lost hundreds of millions of dollars in his bank account. According to the police investigation, this case originated from information stored in OJK's Financial Information Service System (SLIK). Bank employees sold the data to criminal groups. Based on this information, they duplicated identity cards (KTP) and then asked telecommunications operator Indosat to return the SIM card because the phone was lost. After getting a new SIM card, they accessed their email using a one-time password (OTP). In addition, they managed to change the m-banking password [2].

This case can be a reason to use audit digitalization amid rampant digital fraud cases. The importance of professional training, computer self-efficacy, technology acceptance model, and audit digitalization as moderators of the above phenomenon can be seen in their ability to detect fraud in the electronic environment.

Professional training is the development of professionalism that focuses on efforts to discover and develop one's professional capacity. According to [4] professional training is an activity undertaken by employees to improve their abilities in their fields.

An individual with high Computer Self-Efficacy tends to be positive by motivating the team, colleagues, and management. Computer self-efficacy also controls feelings of anxiety because people who have high levels of computer ability feel less anxiety than people who have lower computer abilities. According to [6], one of the critical indicators for an individual's expertise in operating and learning computer systems is computer self-efficacy. Computer self-efficacy in auditing is expected to improve auditor performance by measuring the auditor's ability to conduct the audit process in operating Computer-Aided Audit Techniques.

According to [7], the Technology Acceptance Model (TAM) is one of several important concepts related to implementing IT systems. This model is usually used to describe how individuals accept the application of IT systems. According to TAM, at least five main factors influence individual acceptance of IT systems: usability, user-friendliness, attitude, intention, and actual use of technology. The TAM is a technology acceptance framework used to calculate an individual's acceptance or adaptation to the technology used.

According to [8], digitization transfers printed media, audio, and video to digital formats. According to [9] audit digitization is applied with technology in the audit process. This technique is called Computer-Assisted Audit Techniques (CABT). It is used in each Public Accounting Firm differently, in its entirety or only part of the audit process. 58% of auditors and entities believe technological advances will heavily influence the audit process and function in the next five years. As a result, the digitization of audits must occur.

1.1. Research Objectives

The method used in this research is a quantitative method that uses regression analysis. The quantitative method was chosen because researchers want to examine the significance of the influence of independent variables simultaneously, partially, and moderately on the dependent variable, namely digital fraud detection. Three independent variables, one moderation variable and one dependent variable were used in this study. The primary data used in this study was collected through questionnaires.

The population in this study was 201 auditors in 201 state-owned conventional banks. The sample used is saturated, so there are 201 internal auditors.

1.1.1. Importance of Technoloy Acceptance Model (TAM)

The Technology Acceptance Model (TAM) outlines how individuals perceive and adopt IT systems. Key factors such as usability, ease of access, and user attitudes play a vital role in determining the effectiveness of technology in fraud detection processes.

3. RESULT AND DISCUSSION

3.1. Statistic Descriptive

Table 1 Statistic Descriptive Results

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PT	**79**	**14.417**	**37.051**	**30.34065**	**5.846637**
CSE	79	9.949	25.249	20.11071	4.277583
TAM	79	19.182	56.689	44.47510	9.292795
DA	79	12.120	30.646	24.86763	4.713578
PDF	79	12.524	33.867	26.85373	6.106639
Valid N (listwise)	79				

Source: Data Processed, 2024

Based on the table above, the Professional Training Variable (X1) obtained a minimum value of 14,417, a maximum value of 37,051, an average value of 26,85373, and a standard deviation of 5,846637. The Computer Self-Efficacy variable (X2) obtained a minimum value of 9,949, a maximum value of 25,249, an average value of 20,11071, and a standard deviation of 4,277583. The Technology Acceptance Model (X3) variable obtained a minimum value of 19,182, a maximum value of 56,689, an average value of 44,47510, and a standard deviation of 9,292795. The Audit Digitalization variable (X4) obtained a minimum value of 12,120, a maximum value of 30,646, an average value of 24,86763, and a standard deviation of 4,713578. The Digital Fraud Detection variable (Y) obtained a minimum value of 12,524, a maximum value of 33,867, an average value of 26,85373, and a standard deviation of 6,106639.

3.2. Classical Assumption Test

Before data analysis, the classical assumption test ensures that typical regression values are free from heteroscedasticity and multicollinearity. Deviations from classical assumptions are tested using the following method:

Table 2 Normality Test Result

		Unstandardized Residual
N		79
Normal Parameters[a,b]	Mean	.0000000
	Std. Deviation	3.31790745
Most Extreme Differences	Absolute	.078
	Positive	.076
	Negative	-.078
Test Statistic		.078
Asymp. Sig. (2-tailed)		.200[c,d]

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

Source: Data Processed, 2024

Looking at the table, it is known that the significance value is 0.200> 0.050, the conclusion is that the residual value is normally distributed.

Table 3. Multicollinearity Test Results

		Collinearity Statistics	
Model		Tolerance	VIF
1 (Constant)			
	X1	.358	2.793
	X2	.442	2.262
	X3	.239	4.184
	X4	.351	2.848

Source: Data Processed, 2024

Looking at the table above, all independent variables have a tolerance value> 0.1 and a VIF value < 10.00, so the conclusion that can be drawn is that all independent variables used in this study do not occur multicollinearity.

Table 4. Multiple Linear Regression Test

		Unstandardized Coefficients		Standardized Coefficients
Model	B	Std. Error		Beta
1 (Constant)	-.310	2.270		
X1	.122	.099		.117
X2	.467	.134		.327
X3	.316	.081		.482

Source: Data Processed, 2024

From the results of multiple linear regression studied on the variables of Professional Training, Computer Self-Efficacy, and Technology Acceptance Model on Digital Fraud Detection. The equation used in this research is as follows:

$$Y = -0.310 + 0.122X1 + 0.467X2 + 0.316X3 + e$$

1) Based on the equation that has been made, it can be seen that the constant value of -0.310 means that if all independent variables are considered constant, namely professional training (X1), computer self-efficacy (X2), and technology acceptance model (X3), the value of thdependent variable, namely digital fraud detection (Y) is -0.310.
2) The professional training regression coefficient value of 0.122 means that if the other independent variables are constant and professional training (X1) increases by 1%, then the detection of digital fraud (Y) will increase by 0.122.

3) The computer self-efficacy regression coefficient value of 0.467 means that if the other independent variables are constant and computer self-efficacy (X2) increases by 1%, the detection of digital fraud (Y) will increase by 0.467.
4) The technology acceptance model regression coefficient value of 0.316 means that if the other independent variables are constant and the increases by 1%, the detection of digital fraud (Y) will increase by 0.316.

3.3. Hypothesis Test

Table 5. Determination Coefficient Test Results

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.838[a]	.702	.690	3.40012

a. Predictors: (Constant), X3, X2, X1

b. Dependent Variable: Y

Source: Data Processed, 2024

The table above states that the coefficient of multiple determination (Adjusted R2) is 0.69. This value shows that the digital fraud detection variable is influenced by 69.0% of the professional training variable (X1), computer self-efficacy (X2), and the technology acceptance model (X3), while the remaining 31.0% is influenced by other variables outside this study.

Table 6. Simultaneous F Test Results

Model	F	Sig.
1 Regression	58.867	.000[b]
Residual		
Total		

Source: Data Processed, 2024

The results of hypothesis testing state that the Fcount value is 58.867 while the Ftable for a real level of 5% and numerator (k = 3), so the denominator df = n-k-1 = (79-3-1) = 75 is 2.73 so that it can be explained that the Fcount is 58.867> Ftable of 2.73 with a significance level of 0.000 <0.05, so Ho1 is rejected or Ha1 is accepted. So, the conclusion is that professional training (X1), computer self-efficacy (X2), and the technology acceptance model (X3) affect the detection of digital fraud (Y) together or simultaneously.

Table 7. Partial t Test Results

Model		t	Sig.
1	(Constant)	-.136	.892
	X1	1.234	.221
	X2	3.474	.001
	X3	3.903	.000

Source: Data Processed, 2024

Based on the table above, the ttable value with a real rate of 5% (0.05) and df = n-k-1 = (79-3-1) = 75 is 1.992, while the tcount of the professional training variable is 1.234. Then Ho2a is accepted, or Ha2a is rejected because tcount < ttable with a number 1.234 < 1.992, namely the partial hypothesis test results show that audit digitalization does not affect detecting digital fraud. The significance value is 0.221> t sig value 0.05, so the conclusion is that Professional Training has no significant effect on Digital Fraud Detection.

The results of hypothesis testing state that the tcount value of the computer self-efficacy variable is 3.474 using the t table with a real level of df tcount of 1.992. Then Ho2b is rejected, and Ha2b is accepted because tcount> ttable with a number 3.474> 1.992, namely the partial hypothesis test results state that computer self-efficacy influences the detection of digital fraud. The significance value of 0.001 <0.05 sig t value, so the conclusion is that Computer Self-Efficacy has a significant impact on Digital Fraud Detection.

The results of the hypothesis test state that the tcount value of the technology acceptance model variable is 3.903 using the t table with a real level of df tcount of 1.992. Then Ho2c is rejected, and Ha2c is accepted because tcount> ttable with the number 3.903> 1.992, namely the partial hypothesis test results show that the technology acceptance model influences the detection of digital fraud. The significance value of 0.000 <0.05 sig t value, so the conclusion is that the Technology Acceptance Model has a significant influence on Digital Fraud Detection.

3.4. MRA Test

Table 8. MRA Test Result X1 and X4 on Y

Model		t	Sig.
1	(Constant)	1.109	.271
	X1	2.314	.023
	X4	3.657	.000

Source: Data Processed, 2024

Table 9. MRA Test Result X1 and X4 on Y

Model		t	Sig.
1	(Constant)	-.903	.370
	X1	1.795	.077
	X4	2.156	.034
	X1.X4	-1.184	.240

Source: Data Processed, 2024

The results of this study show that Table 8 has a significant relationship, while Table 9 has no significant relationship. Then Ho¬3a is accepted, or Ha3a is rejected. Namely, the audit digitalization variable does not moderate the effect of professional training on digital fraud detection. In this case, audit digitalization is a predictor moderator. This means that the moderating variable (audit digitalization) is a variable that does not moderate the relationship between the independent and dependent variables, and this moderation is only a predictor variable.

Table 10. MRA Test Result X2 and X4 on Y

Model		t	Sig.
1	(Constant)	-.037	.971
	X2	6.217	.000
	X4	4.346	.000

Source: Data Processed, 2024

Table 11. MRA Test Result X2 and X4 on Y

Model		t	Sig.
1	(Constant)	-1.507	.136
	X2	2.755	.007
	X4	2.543	.013
	X2.X4	-1.537	.129

Source: Data Processed, 2024

The results of this study show that Table 10 has a significant relationship, while Table 11 does not have a meaningful relationship. So, Ho3b is accepted, or Ha3b is rejected. Namely, the audit digitalization variable does not moderate the effect of computer self-efficacy on digital fraud detection; in this case, audit digitalization as a predictor moderator.

This means that the moderating variable (audit digitalization) is a variable that does not moderate the relationship between the dependent variable and the independent variable, and this moderation is only a predictor variable.

Table 12. MRA Test Result X3 and X4 on Y

Model		t	Sig.
1	(Constant)	.824	.413
	X3	6.964	.000
	X4	1.345	.183

Source: Data Processed, 2024

Table 13. MRA Test Result X3 and X4 on Y

Model		t	Sig.
1	(Constant)	-.464	.644
	X3	2.528	.014
	X4	1.046	.299
	X3.X4	-.670	.505

Source: Data Processed, 2024

The results of this study show that Table 12 has a significant relationship, while Table 13 does not have a meaningful relationship. So, Ho3c is accepted, or Ha3c is rejected. Namely, the audit digitalization variable does not moderate the effect of the technology acceptance model on digital fraud detection; in this case, audit digitalization is a predictor moderator. This means that the moderating variable (audit digitalization X4) is a variable that does not moderate the relationship between the independent and dependent variables; this moderation is only a predictor variable.

4. CONCLUSION

This study aims to answer the research objectives, namely to determine how professional training, computer self-efficacy, and the technology acceptance model affect the detection of digital fraud with audit digitalization as a moderating variable on internal auditors in state-owned conventional banks in South Sumatra.

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