

# Forensic Accounting Skills as Determinants of Self-Efficacy in Fraud Detection: A Study of Social Security Account Officers

**Adrian M. Gomez**

MBA Student, Batangas State University

## ABSTRACT

This study examined the impact of forensic accounting skills on self-efficacy in detecting fraud, specifically employer delinquency, among Philippine Social Security System (SSS) Account Officers in Regions III (Central Luzon), IV-A (CALABARZON), and IV-B (MIMAROPA). It assessed the proficiency levels of Account Officers in key forensic accounting skills—Technical and Analytical Skills, Effective Communication Skills, Psycho-Social Skills, and Accounting and Auditing Skills—and evaluated their impact on self-efficacy. The study also aimed to propose a competency development plan to enhance fraud detection capabilities. Using a descriptive-correlational research design, data were collected through a researcher-made questionnaire, validated, and pilot-tested with Region V (Bicol) Account Officers. Descriptive statistics and regression analysis were used to analyze the data. Findings revealed advanced proficiency in all forensic accounting skills, with Psycho-Social Skills positively influencing self-efficacy, while Effective Communication Skills showed a negative impact. Technical and Analytical Skills and Accounting and Auditing Skills did not significantly affect self-efficacy. These results highlight the importance of targeted training and development initiatives focused on Psycho-Social and Effective Communication Skills to enhance the self-efficacy of Account Officers in fraud detection. A competency development plan was proposed to address these findings and improve fraud detection capabilities.

**Keywords:** Fraud detection, Employer Delinquency, Self-Efficacy, Forensic Accounting Skills

## 1. INTRODUCTION

The Philippine Social Security System (SSS) plays a vital role in ensuring the financial security of millions of Filipinos. As the nation's economy evolves, the SSS faces pressing challenges, such as employer delinquency, which the Commission on Audit highlighted in its 2022 audit report. This issue not only jeopardizes the sustainability of the SSS fund but also presents an opportunity to enhance collection strategies and optimize resource management. Account Officers are central to this effort, tasked with ensuring compliance and transforming delinquent contributions into valuable financial resources.

In regions with diverse and complex business environments, including Regions III (Central Luzon), IV-A (CALABARZON), and IV-B (MIMAROPA), Account Officers face additional challenges due to the prevalence of micro, small, and medium enterprises (MSMEs). These complexities necessitate advanced forensic accounting skills to detect and address employer delinquency effectively. Moreover, the self-efficacy of Account Officers—their belief in their abilities—plays a critical role in their performance, particularly in navigating the intricacies of fraud detection. Investigation of such beliefs is necessary to help

solve the potential negative effect of the increasing delinquent employers on the officers due to the corresponding increase in workload and targets.

This study focuses on evaluating the proficiency levels of Account Officers in key forensic accounting skills—Technical and Analytical Skills, Effective Communication Skills, Psycho-Social Skills, and Accounting and Auditing Skills—and examines their influence on self-efficacy. Understanding these relationships enable this study to propose a competency development plan tailored to enhance the skills and confidence of Account Officers. Ultimately, these efforts will contribute to improving audit strategies and fraud detection capabilities, promoting a transparent and efficient system that benefits the SSS, the employers, its members, and its stakeholders.

## 2. OBJECTIVES

This study aimed to assess the Forensic Skills of Account Officers in Region III (Central Luzon), Region IV-A (CALABARZON) and Region IV-B (MIMAROPA) towards enhancement of their Self-efficacy. Specifically, this sought answers to the following questions:

1. What is the level of self-efficacy among account officers in the Region III (Central Luzon), Region IV-A (CALABARZON) and Region IV-B (MIMAROPA)?
2. What is the proficiency level of account officers regarding the following forensic accounting skills?
  - 2.1. Technical and Analytical Skills
  - 2.2. Effective Communication Skills
  - 2.3. Psycho-Social Skills
  - 2.4. Accounting and Auditing Skills
3. Do respondents' forensic accounting skills significantly affect their self-efficacy?
4. What Competency Development Plan may enhance fraud detection among SSS Account Officers through the examined Forensic Accounting Skills?

## 3. HYPOTHESIS

The study tested the following null hypothesis:

H<sub>0</sub>: The respondents' Forensic Accounting Skills do not significantly affect their Self-efficacy in fraud detection.

## 4. SCOPE AND LIMITATIONS OF THE STUDY

This study focused on assessing the forensic accounting skills of Account Officers (AOs) in SSS branches across Region III, Region IV-A, and Region IV-B, and their impact on self-efficacy in detecting employer delinquency. It employed a quantitative survey approach, involving AOs responsible for auditing payrolls and business registrations. This study's scope was limited to these specific regions and the identified forensic accounting skills and does not consider broader organizational or external factors that may influence delinquency detection. Furthermore, it acknowledges the inherent subjectivity introduced by reliance on self-reported data. Additionally, the study did not examine potential technological limitations and organizational irregularities, which could be areas for future research. It is important to note that this research was conducted solely for academic purposes and is not intended for operational, policy-making, or evaluative use by the Social Security System or any other entity.

## 5. RELATED LITERATURE

The reviewed literature emphasizes the critical role of forensic accounting skills and self-efficacy in achieving effective fraud detection. Studies such as those by Al Natour et al. (2023), Chukwu et al. (2019), Sihombing et al. (2019), and Alabdullah et al. (2014) explore the varied impacts of technical expertise, communication abilities, and psychosocial competencies on fraud detection. Al Natour et al. (2023) and Chukwu et al. (2019) emphasize the importance of Technical and Analytical Skills (TAS) and Effective Communication Skills (ECS) but offer differing perspectives on their influence, with Chukwu et al. identifying ECS as a critical determinant for fraud detection outcomes. Sihombing et al. (2019) highlight the value of training and experience in advancing auditors' forensic capabilities, while Alabdullah et al. (2014) identify gaps in forensic accounting awareness that limit effectiveness in combating financial corruption. These findings collectively point to the need for context-specific approaches to develop these skills further and enhance self-efficacy.

Self-efficacy emerges as a pivotal factor influencing auditor performance and fraud detection capabilities. Research by Al Natour et al. (2023), Lee et al. (2016), and Mohd Sanusi et al. (2018) demonstrate the positive relationship between self-efficacy and audit quality, highlighting the importance of goal-oriented learning, professional development, and organizational support in boosting auditor confidence and competence. Additionally, psychosocial factors such as collaboration, stress management, and decision-making, highlighted in discussions by Crain et al. (2015) and Sihombing et al. (2019), further enhance auditors' ability to navigate complex fraud detection scenarios.

Forensic accounting skills, including Psycho-Social Skills (PSS), TAS, ECS, and Accounting and Auditing Skills (AAS), are central to supporting self-efficacy. While PSS has been shown to positively impact self-efficacy (Al Natour et al., 2023; Sihombing et al., 2019), the relationship between ECS and self-efficacy varies, with some studies noting negative effects due to communication demands in high-pressure scenarios (Zhou et al., 2019). The nuanced interplay of these skills underscores the need for targeted training and competency development programs to address skill gaps and enhance self-efficacy among auditors.

These findings inform the present study by providing a framework to assess the proficiency levels of SSS Account Officers in forensic accounting skills and evaluate their influence on self-efficacy. The study builds on this body of literature to propose a competency development plan aimed at strengthening fraud detection capabilities and optimizing performance outcomes.

## 6. THEORETICAL FRAMEWORK

This study is grounded in the theoretical work of Al Natour et al. (2023), who examined the influence of forensic accounting skills on auditor self-efficacy (ASE). Their research highlighted the significant role of specific skills, such as Effective Communication Skills (ECS), Psycho-Social Skills (PSS), Technical and Analytical Skills (TAS), and Accounting and Auditing Skills (AAS), in shaping auditors' confidence and competence. Using SEM-PLS, Al Natour et al. demonstrated that PSS and AAS positively impacted ASE, while the relationship between ECS and ASE varied depending on the context, suggesting that communication demands in high-pressure situations may negatively affect self-efficacy. These findings emphasize the nuanced relationship between forensic skills and ASE, reinforcing the need for targeted training and development.

Self-efficacy, a central construct in this study, reflects an individual's belief in their ability to execute tasks effectively (Bandura, 1997). In the auditing context, ASE is a critical determinant of performance,

influencing the ability to address challenges, such as fraud detection, and adapt to complex environments (Lee et al., 2016; Mohd Sanusi et al., 2018). Research indicates that ASE is significantly influenced by foundational forensic skills, including PSS, which enhances decision-making and stress management, and ECS, which facilitates clear communication with stakeholders (Chukwu et al., 2019; Crain et al., 2015). Forensic accounting skills are operationalized in this study through four dimensions: TAS, ECS, PSS, and AAS. TAS supports analytical rigor, enabling auditors to identify discrepancies in financial data, while AAS provides the technical foundation for applying regulations and standards during audits. PSS enhances interpersonal capabilities and resilience in complex scenarios, and ECS ensures effective interaction and reporting. Together, these skills shape ASE and contribute to professional effectiveness in fraud detection and compliance enforcement.

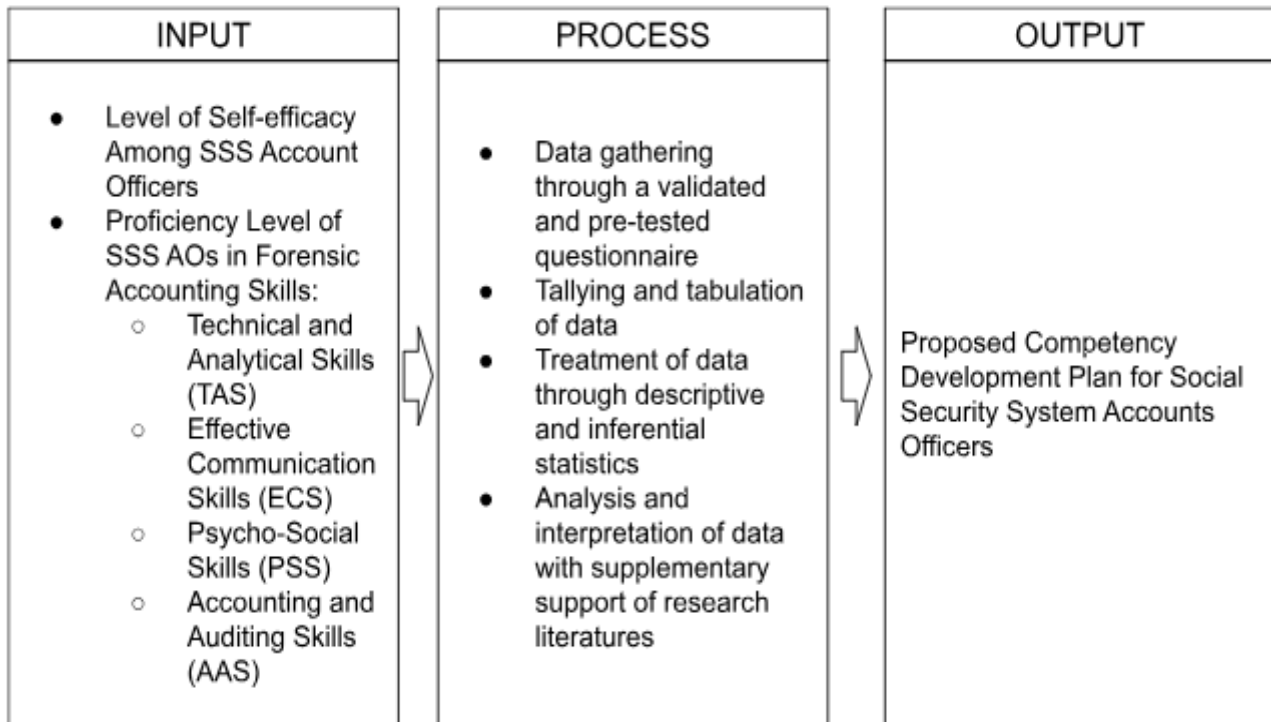
This theoretical framework provides the foundation for evaluating the proficiency levels of Social Security System (SSS) Account Officers in Regions III, IV-A, and IV-B. It explores how forensic accounting skills collectively influence self-efficacy, addressing the hypothesis that these skills significantly affect ASE. The insights gained will inform the development of a competency plan aimed at strengthening the ASE of Account Officers and improving their fraud detection capabilities.

## 7. CONCEPTUAL FRAMEWORK

This study builds on the framework of Al Natour et al. (2023), which explored the impact of forensic accounting skills on auditor self-efficacy (ASE). Adapting this framework to the context of the Philippine Social Security System (SSS), the research focuses on Regions III, IV-A, and IV-B to assess the proficiency levels of Account Officers (AOs) in key forensic accounting skills—Technical and Analytical Skills (TAS), Effective Communication Skills (ECS), Psycho-Social Skills (PSS), and Accounting and Auditing Skills (AAS)—and evaluates their influence on ASE. Guided by the Input-Process-Output (IPO) model, the study identifies forensic accounting skills as the inputs, ASE as the process variable, and enhanced competency and confidence in fraud detection as the output. Using validated surveys, the study employs descriptive and inferential statistical methods, such as regression analysis, to examine the relationships between these variables. The insights gathered from the analysis inform actionable recommendations to strengthen the self-efficacy of AOs through targeted training and development.

The study's ultimate output is a Comprehensive Development Plan (CDP) designed to address the identified gaps in forensic accounting skills and enhance ASE among SSS Account Officers. Grounded in adult learning and organizational development theories, the CDP includes tailored interventions such as workshops, online modules, mentoring, and case-based simulations. The program is structured into four phases—Needs Assessment, Program Design, Implementation, and Evaluation—to ensure alignment with organizational goals and continuous improvement. The CDP emphasizes practical applications and skill-building, with effectiveness measured by improvements in knowledge acquisition, skill development, and behavioral outcomes. This initiative aims to equip AOs with the necessary expertise and confidence to enhance fraud detection capabilities, thereby strengthening the SSS's ability to address employer delinquency and ensure compliance.

**Figure 1. Forensic Accounting Skills as Determinants of Self-Efficacy in Fraud Detection: A Study of Social Security Account Officers**



## 8. MATERIALS AND METHODS

A descriptive-correlational research design was used in this study to examine the relationship between forensic accounting skills and self-efficacy among Account Officers. This approach facilitated the efficient collection of quantitative data from a large and diverse sample through standardized surveys, ensuring consistency and reliability in measurement. It also provided insights into how specific forensic skills influence self-efficacy, enabling data-driven recommendations for capacity-building initiatives (Calmorin & Calmorin, 2003).

### 8.1 Respondents of the Study

This study focused on 135 Social Security System (SSS) Account Officers (AOs) from 15 provinces in Regions III, IV-A, and IV-B, selected through stratified random sampling from a population of 207 AOs due to their pivotal role in addressing employer delinquency. These regions were chosen for their potential to enhance collection rates (COA annual reports, Philippine Star, July 2023) and the high prevalence of micro, small, and medium enterprises (PSA 2022 List of Establishments), ensuring the findings are relevant to diverse business landscapes.

### 8.2 Data Gathering Instrument

The study employed a structured questionnaire consisting of 53 statements rated on a 7-point Likert scale (1 = "Strongly Disagree" to 7 = "Strongly Agree"). Adapted from Al Natour et al. (2023), the instrument was customized to address the forensic accounting skills and self-efficacy of SSS Account Officers. The development process included a thorough literature review and preliminary interviews with respondents to ensure practicality and comprehensiveness. The questionnaire was divided into thematic sections aligned with the study's theoretical framework. Multiple expert reviews were conducted, including

evaluations by the thesis adviser, panel members, a statistician, and a grammarian, ensuring rigor and clarity.

### 8.3 Data Gathering Procedures

Data collection involved administering the structured questionnaire to 135 Account Officers across 15 provinces using stratified random sampling. Individualized Microsoft Excel forms ensured precise data entry and enhanced usability through automation features providing real-time feedback. Confidentiality was safeguarded with control numbers and access restrictions. The survey was distributed online via email, allowing two weeks for completion, followed by reminders.

### 8.4 Statistical Treatment of Data

Quantitative data analysis utilized statistical software to compute means and standard deviations, highlighting the proficiency levels of forensic accounting skills and self-efficacy across geographic areas in the 2nd objective. Before conducting regression analysis for hypothesis testing in objective number 3, tests of statistical assumptions were performed and they showed a non-normal distribution (p-value <.001). Hence, Quantile Regression was employed to examine the influence of forensic accounting skills on self-efficacy. This analytical approach provided deeper insights into the relationship between these variables, supporting the development of targeted recommendations to enhance the officers’ performance.

### 8.5 Ethical Considerations

Ethical standards, guided by the APA Ethics Code (APA, 2017), were rigorously upheld throughout this study. Informed consent was obtained from all participants, and data confidentiality was strictly maintained. Responses were anonymized, and access to raw data was restricted to ensure privacy. Surveys were conducted outside working hours, and all formal permissions were secured. Participants were assured that their responses would not impact their performance evaluations or employment status, fostering honest and unbiased participation. Data will be securely stored for two years before permanent deletion, ensuring compliance with ethical research practices.

## 9. RESULTS AND DISCUSSION

The findings of the study generated the following quantitative results and were interpreted using the relevant literature.

### 9.1 Level of Self-efficacy Among SSS Account Officers

**Table 1. Level of Self-efficacy among SSS Account Officers**

Capability	Mean	SD	Interpretation
Meeting delinquency targets with high employer volume	5.95	1.21	Very High
Managing workload for timely audit completion	5.84	1.06	Very High
Overcoming audit challenges	5.85	1.03	Very High
Collecting delinquent contributions (including legal action)	6.02	1.25	Very High
Contributing to SSS financial stability	6.27	1.06	Very High
Achieving positive outcomes for SSS	6.30	1.05	Very High
Possessing the necessary skills for AMS success	6.30	0.98	Very High

Detecting employer delinquency efficiently	6.13	1.04	Very High
Detecting employer delinquency effectively	6.15	1.02	Very High
Maintaining composure in difficult employer interactions	6.23	0.96	Very High
Defending audit findings under scrutiny	6.01	1.06	Very High
Upholding professional credibility	6.41	1.00	Very High
<b>Overall</b>	<b>6.12</b>	<b>0.91</b>	<b>Very High</b>

It is shown in Table 1 that Account Officers demonstrate very high self-efficacy ( $M = 6.12$ ,  $SD = 0.91$ ), excelling in areas such as maintaining professional credibility ( $M = 6.41$ ,  $SD = 1.00$ ) and possessing essential skills ( $M = 6.30$ ,  $SD = 0.98$ ). These findings align with Al Natour et al. (2023), who identified a strong connection between psycho-social skills and self-efficacy. However, confidence levels decrease in tasks such as collecting delinquent contributions ( $M = 6.02$ ,  $SD = 1.25$ ) and managing heavy workloads ( $M = 5.84$ ,  $SD = 1.06$ ).

This highlights gaps in addressing technical challenges, consistent with Mohd Sanusi et al. (2018), who noted that complex tasks can reduce self-efficacy. This variation highlights the necessity for targeted interventions and systemic changes, as excessive workloads negatively affect fraud detection performance (Sihombing et al., 2019; Su et al., 2016). To address these, the SSS may implement mentorship initiatives, optimizing workflows, and providing training in advanced analytics and fraud risk management (Al Natour et al., 2023; Clarabal & Sucuahi, 2023). Additionally, ongoing professional development programs focusing on the psycho-social dimensions of fraud detection (Chukwu et al., 2019) and enhanced organizational support for resource allocation and tool integration (Allbabidi, 2021) may further improve Account Officers' confidence and overall effectiveness. These recommendations align with the study's findings, which highlight the need for enhanced capabilities in addressing specific challenges related to fraud detection and managing complex tasks. Tackling these issues would significantly strengthen employer delinquency detection which constitutes fraud in this study's context.

## 9.2 Proficiency Level of SSS Account Officers in Forensic Skills

**Table 2. Proficiency Level of SSS Account Officers in Terms of Technical and Analytical Skills**

Capability	M	SD	Interpretation
Adapting to new technologies	6.51	0.68	Mastery
Demonstrating objectivity in analysis	6.46	0.64	Advanced
Utilizing AMAS, WINS, and other relevant software	6.48	0.91	Advanced
Correlating relevant laws during investigations	6.49	0.67	Advanced
Auditing delinquency-related evidence	6.39	0.84	Advanced
Applying multiple approaches to complex delinquency issues	6.36	0.79	Advanced
Identifying hidden patterns and discrepancies in financial data	6.13	0.97	Advanced
Applying quantitative techniques for financial data analysis	6.13	0.94	Advanced
Identifying root causes of delinquency	6.20	0.97	Advanced

Ensuring accuracy in reporting findings	6.32	0.80	Advanced
<b>Overall</b>	<b>6.35</b>	<b>0.70</b>	<b>Advanced</b>

Table 2 reveals that Account Officers display advanced proficiency in Technical and Analytical Skills ( $M = 6.35$ ,  $SD = 0.70$ ), excelling in areas such as adapting to new technologies ( $M = 6.51$ ,  $SD = 0.68$ ) and utilizing software like AMAS and WINS ( $M = 6.48$ ,  $SD = 0.91$ ). However, challenges remain in identifying the root causes of delinquency ( $M = 6.20$ ,  $SD = 0.97$ ) and analyzing financial data ( $M = 6.13$ ,  $SD = 0.94$ ). These findings indicate a need for enhanced training and self-efficacy development (Chukwu et al., 2019; Al Natour et al., 2023). Lower proficiency in advanced analytical skills may impede AOs’s ability to detect complex fraud, a problem that is further aggravated by overwork and system constraints (Al-Okaily et al., 2022; Lutfi & Alqudah, 2023). To mitigate these issues, the SSS could implement focused training programs on advanced analytics and fraud detection methodologies (Damayanti & Hastuti, 2022), upgrade the functionality of tools like AMAS and WINS (Allbabidi, 2021), and integrate automation and data visualization solutions (Samagaio & Diogo, 2022). Furthermore, fostering a supportive organizational environment through mentoring and workflow optimization (Al Natour et al., 2023) could significantly enhance the technical capabilities of Account Officers.

**Table 3. Proficiency Level of SSS Account Officers in Terms of Effective Communication Skills**

Capability	Mean	SD	Interpretation
Demonstrating empathy in difficult conversations	6.36	0.72	Advanced
Accepting colleague feedback on communication	6.55	0.70	Mastery
Adopting appropriate communication styles	6.33	0.83	Advanced
Tailoring communication approaches to situations	6.30	0.79	Advanced
Using nonverbal cues to convey professionalism	6.33	0.80	Advanced
Communicating with employers clearly	6.55	0.59	Mastery
Writing understandable delinquency reports	6.56	0.66	Mastery
Proactively resolving communication misunderstandings	6.55	0.64	Mastery
Utilizing communication technologies for delinquency management	6.55	0.68	Mastery
Finding common ground in delinquency discussions	6.50	0.66	Mastery
<b>Overall</b>	<b>6.46</b>	<b>0.58</b>	<b>Advanced</b>

Table 3 highlights that Account Officers demonstrate advanced proficiency in Effective Communication Skills ( $M = 6.46$ ,  $SD = 0.58$ ), particularly excelling in report writing ( $M = 6.56$ ,  $SD = 0.66$ ) and clear communication with employers ( $M = 6.55$ ,  $SD = 0.59$ ). However, they show lower proficiency in empathy ( $M = 6.36$ ,  $SD = 0.72$ ) and adapting communication approaches to different situations ( $M = 6.30$ ,  $SD = 0.79$ ). These gaps could affect their ability to build rapport and maintain effectiveness, as trust is a key factor in enforcement (Crain et al., 2015). System limitations and heavy workloads may further intensify these challenges (Al-Okaily et al., 2022). Addressing these issues could involve conducting workshops focused on active listening and emotional intelligence (Coleman, 2020) and



implementing tools like ATLAS to support communication needs (Damayanti & Hastuti, 2022). Moreover, ongoing professional development programs (Clarabal & Sucuahi, 2023) and fostering a supportive organizational culture (Su et al., 2016) could significantly improve communication skills and enhance overall performance.

**Table 4. Proficiency Level of SSS Account Officers in Terms of Psycho-social Skills**

Capability	M	SD	Interpretation
Proactively managing workload	6.44	0.74	Advanced
Collaborating with colleagues	6.66	0.56	Mastery
Maintaining professionalism in challenging situations	6.60	0.56	Mastery
Managing stress effectively	6.24	0.76	Advanced
Understanding different viewpoints	6.44	0.66	Advanced
Approaching investigations with an innovative mindset	6.22	0.89	Advanced
Adhering to protocols under pressure	6.50	0.71	Mastery
Ensuring proper evidence handling	6.55	0.69	Mastery
Demonstrating leadership	6.24	0.92	Advanced
Maintaining objectivity in decision-making	6.30	0.88	Advanced
Analyzing employer behavior for fraud indicators	6.11	1.15	Advanced
<b>Overall</b>	<b>6.39</b>	<b>0.61</b>	<b>Advanced</b>

Table 4 reveals that Account Officers possess advanced Psycho-Social Skills (M = 6.39, SD = 0.61), excelling in collaboration (M = 6.66, SD = 0.56) and maintaining professionalism under pressure (M = 6.60, SD = 0.56). However, lower scores in analyzing employer behavior for fraud (M = 6.11, SD = 1.15) and managing stress effectively (M = 6.24, SD = 0.76) highlight strong teamwork but also gaps in critical fraud detection skills. These findings align with studies emphasizing the importance of psycho-social competencies (Al Natour et al., 2023; Chukwu et al., 2019; Sihombing et al., 2019). The proficiency in collaboration, supported by Masood and Afzal (2016), indicates that Account Officers thrive in team environments, fostering a culture of support and collective goal achievement. Nonetheless, the gaps in analyzing employer behavior suggest a vulnerability in detecting and addressing emerging fraudulent practices, which could undermine the SSS’s proactive fraud prevention strategies (Al Natour et al., 2023). Enhancing psycho-social skills in fraud detection could help mitigate potential financial losses. Training in forensic accounting and behavioral analysis is recommended (Chukwu et al., 2019; Alabdullah et al., 2014), particularly through modules focusing on psychological aspects of fraud, as proposed by Afriyie et al. (2022). Such training could better equip Account Officers to identify behavioral red flags and respond effectively. Specialized modules in fraud psychology, along with real-world case studies (Afriyie et al., 2022), and mentorship programs that integrate technological tools for improved data interpretation (Samagaio & Diogo, 2022) could further enhance Account Officers’ capabilities. Establishing mentorship initiatives may also facilitate knowledge sharing and skill development in areas of weakness. Addressing these gaps through targeted training and development would enable the SSS to empower Account Officers to be more effective in their fraud detection efforts.

**Table 5. Proficiency Level of SSS Account Officers in Terms of Accounting and Auditing Skills**

Capability	M	SD	Interpretation
Proactively identifying delinquency patterns	6.16	1.02	Advanced
Identifying weaknesses in internal controls	5.96	1.06	Advanced
Correlating financial data to assess delinquency likelihood	5.91	1.10	Advanced
Understanding employer-provided financial documents	6.02	1.05	Advanced
Documenting audit findings comprehensively	5.89	1.19	Advanced
Interpreting employer accounting records	5.96	1.01	Advanced
Applying relevant regulations in compliance assessments	6.31	0.86	Advanced
Upholding ethical standards in audits and investigations	6.60	0.70	Mastery
Reconciling employer records with AMaS	6.46	0.86	Advanced
Reconciling employer records with WINS	6.54	0.80	Mastery
<b>Overall</b>	<b>6.18</b>	<b>0.77</b>	<b>Advanced</b>

Table 5 indicates that Account Officers have advanced proficiency in accounting and auditing skills (M = 6.18, SD = 0.77), excelling in upholding ethical standards (M = 6.60, SD = 0.70) and reconciling records using AMaS (M = 6.46, SD = 0.86) and WINS (M = 6.54, SD = 0.80). However, they exhibit weaknesses in interpreting financial documents (M = 5.96, SD = 1.01) and identifying internal control deficiencies (M = 5.96, SD = 1.06), which could hinder proactive fraud detection and limit the SSS's effectiveness. The ability to interpret complex financial documents accurately is critical for spotting discrepancies indicative of fraud. Likewise, a thorough understanding of internal controls is essential to identify vulnerabilities and prevent potential fraud schemes. These results align with prior studies that highlight the importance of accounting and auditing skills in fraud detection (Al Natour et al., 2023; Alabdullah et al., 2014; Sihombing et al., 2019). To address these skill gaps, interventions such as specialized training programs focused on financial document analysis and internal control evaluation are recommended (Afriyie et al., 2022). Enhancing the functionality of systems like AMaS and WINS (Novita & Anissa, 2022) and fostering a supportive organizational environment to alleviate overwork and resource limitations (Masood & Afzal, 2016) could also significantly improve Account Officers' capabilities in these areas.

**Table 6. Overall Proficiency Level of SSS Account Officers in Forensic Skills**

Skills	M	SD	Interpretation
Technical and Analytical Skills	6.35	0.70	Advanced
Effective Communication Skills	6.46	0.58	Advanced
Psycho-Social Skills	6.39	0.61	Advanced
Accounting and Auditing Skills	6.18	0.77	Advanced
<b>Overall</b>	<b>6.35</b>	<b>0.66</b>	<b>Advanced</b>

It is observed in Table 6 that Account Officers exhibit advanced proficiency in forensic accounting skills (M = 6.35), with the highest scores in Effective Communication Skills (ECS, M = 6.46) and Psycho-Social Skills (PSS, M = 6.39). However, relatively lower proficiency is observed in Technical and Analytical Skills (TAS, M = 6.35) and Accounting and Auditing Skills (AAS, M = 6.18). This indicates strong interpersonal capabilities but potential gaps in technical financial analysis, which may hinder the detection of complex fraud cases (Al Natour et al., 2023; Chukwu et al., 2019). To address these challenges, the SSS may implement targeted training programs aimed at strengthening TAS and AAS (Damayanti & Hastuti, 2022). These measures could significantly enhance proactive fraud detection efforts (Al Natour et al., 2023; Sihombing et al., 2019).

### 9.3 Effect of Forensic Accounting Skills on the Self-efficacy of SSS Account Officers

**Table 7. Forensic Skills on Auditor's Self-efficacy Using Quantile Regression**

Variable		c	TAS	ECS	PSS	AAS	Pseudo R <sup>2</sup>	p(Q LR stat)	D (Ho)	Int
0.25	β	5.60	-0.11	-0.45	0.21	0.40	0.04	.18	F	NS
	p	<.001	.79	.32	.64	.33				
	D(Ho)	R	F	F	F	F				
	Int	S	NS	NS	NS	NS				
0.50	β	5.20	0.11	-0.82	0.65	0.24	0.07	.01	R	S
	p	<.001	.72	.001	.09	.24				
	D(Ho)	R	F	R	F	F				
	Int	S	NS	S	NS	NS				
0.75	β	6.19	-0.22	-0.45	0.75	0.01	0.05	.07	F	NS
	p	<.001	.30	.07	.03	.94				
	D(Ho)	R	F	F	R	F				
	Int	S	NS	NS	S	NS				

**Legend:** β - Coefficient; p - p-value; D(Ho) - Decision to Null Hypothesis; Int - Interpretation

Table 7 examines the influence of four forensic skills—Technical and Analytical Skills (TAS), Effective Communication Skills (ECS), Psycho-Social Skills (PSS), and Accounting and Auditing Skills (AAS)—on Auditor Self-Efficacy (ASE) across different quantiles. The 0.25 and 0.75 quantile models were not statistically significant (p = .18 and p = .07), whereas the 0.50 quantile model yielded significant results (p = .01), though with low Pseudo R-squared values (0.04–0.07), suggesting that these skills account for only a small portion of ASE variance.

At the 0.50 quantile, ECS showed a significant negative relationship with ASE (β = -0.82, p = .001), implying that higher ECS may adversely affect ASE for individuals with moderate self-efficacy. This could stem from communication challenges in delinquency cases, as observed by Zhou et al. (2019). In contrast, PSS demonstrated a positive impact on ASE at the 0.75 quantile (β = 0.75, p = .03), consistent with findings from Sihombing et al. (2019), suggesting that fostering PSS through targeted workshops (VanderWerff &

Bogdan, 2018) could enhance ASE.

The absence of significant effects from TAS and AAS aligns with Afriyie et al. (2022), emphasizing the importance of continued reinforcement in these areas (Clarabal & Sucuahi, 2023). These findings highlight the need for a balanced professional development strategy that prioritizes improving ECS and PSS to address situational challenges and boost ASE. Further research is recommended to better understand the negative ECS-ASE relationship at the median quantile.

### **9.8 Proposed Competency Development Program**

Based on the quantitative findings, a Competency Development Program (CDP) was proposed to enhance fraud detection capabilities. The CDP focuses on addressing the identified significant areas for improvement, particularly in ECS and PSS in enhancing ASE. The program includes targeted training modules, mentoring opportunities, and strategies to foster a supportive organizational environment that promotes self-efficacy and continuous learning.

## **10. CONCLUSIONS**

From the findings, the following conclusions are derived:

1. Account Officers demonstrate very high self-efficacy, excelling in professional credibility, but exhibit lower confidence when dealing with workload management and challenges.
2. Account Officers possess advanced proficiency across all four forensic accounting skills, with the highest proficiency in Effective Communication Skills and the lowest in Accounting and Auditing Skills.
3. Psycho-social skills positively impact self-efficacy among high-performing officers, whereas Effective Communication Skills have a negative effect on self-efficacy for officers with moderate skill levels.
4. A Competency Development Plan is essential to improve fraud detection by addressing challenges in Effective Communication and Psycho-Social Skills, ultimately enhancing Account Officers' self-efficacy in fraud detection.

## **11. RECOMMENDATIONS**

Based on the study's findings and conclusions, the following recommendations are proposed:

1. The SSS may consider strategies to bolster Account Officers' confidence in handling workloads and overcoming challenges by allocating additional resources, streamlining processes, and offering time management training.
2. The SSS may implement focused training programs to enhance Accounting and Auditing Skills, particularly in areas identified as needing improvement.
3. The SSS may prioritize initiatives that promote and reinforce Account Officers' self-efficacy.
4. The SSS may conduct specialized training sessions to improve Effective Communication Skills among officers with moderate proficiency and further develop Psycho-Social Skills for high-performing officers, maximizing their self-efficacy and overall efficiency.
5. The SSS may assess the long-term impact of the Competency Development Plan on Account Officers' self-efficacy in fraud detection and explore the influence of additional factors, such as organizational culture and leadership support.
6. Future research may investigate the applicability of these findings in other regions or departments and examine other relevant factors, such as organizational culture, leadership dynamics, and technological advancements.

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