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Empowering SDG 16 Through Forensic Excellence: Investigative Traits Through The Lens Of The Malaysian Anti-Corruption Commission And The Royal Malaysian Police

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ABSTRACT

Objectives: The objectives of this study are to identify the forensic investigation traits essential for forensic investigation officers, focusing on five key qualities: investigative skills, digital techniques, knowledge, discipline, and teamwork among forensic investigators, using both qualitative and quantitative research methods.

Method: This study used semi-structured interviews with nine forensic investigation officers, four from the Royal Malaysian Police (RMP) and five from the Malaysian Anti-Corruption Commission (MACC). The interview data were summarised thematically into the five categories. Structured questionnaires were distributed to 103 forensic investigation officers.

Findings: Two of the five hypotheses, specifically the skills (p-value = 0.003) and discipline (p-value = 0.014), demonstrated a significant positive relationship with the forensic investigation process. This suggests that enhanced skills and a strong sense of discipline directly contribute to more successful investigative outcomes. Conversely, the investigation of digital techniques (p-value = 0.185), knowledge (p-value = 0.305), and teamwork (p-value = 0.996) showed no significant relationship, suggesting that these attributes may not directly affect the investigation process. However, quantitatively, most of the interviewees emphasised that all five key qualities are important for forensic investigation officers to possess. As a result, this study enriches the existing body of knowledge in the forensic field to improve performance, quality of skills, and the disciplined approach taken by forensic investigator officers.

Novelty: This study contributes to Sustainable Development Goal (SDG) 16 by emphasising the role of the forensic investigation process in enhancing accountability, transparency, and integrity within institutions. By identifying the essential professional qualities required of forensic investigators, the study offers practical insights into how effective forensic investigations support the enforcement of the rule of law and the prevention of financial crimes, thereby fostering more accountable and trustworthy institutions.

Keywords: Ethics, Knowledge, Malaysian Anti-Corruption Commission, Professional traits, Royal Malaysian Police, Skills.

1. INTRODUCTION

In 2020, Malaysian firms reported corruption at 49% and bribery at 25%. According to [1], the deputy home minister of Malaysia expressed apprehension about the rising incidence of fraudulent activities in the country, particularly those conducted online. The reported cases of such fraud totalled 2,590 between 2013 and 2017. Consequently, over 1.73 million people suffered financial losses due to these illicit actions. The financial losses incurred from fraudulent operations in Malaysia exceed RM769 million. In Malaysia, institutions such as the Malaysian Anti-Corruption Commission (MACC) and the Royal Malaysian Police (RMP) have intensified efforts to develop competent forensic investigators as part of national strategies to combat corruption and enhance public trust [2]. These officers are often on the frontlines of anti-corruption initiatives, making their conduct and capabilities directly relevant to achieving the targets of SDG 16, particularly 16.5 (substantially reduce corruption and bribery) and 16.6 (develop effective, accountable, and transparent institutions).

Forensic investigation officers' analytical skills are used to assist in investigating fraud and other financial crimes. Forensic investigation officers may need excellent research and analytical abilities, including the ability to analyse data and think critically [3]. Forensic professionals must possess high-level analytical, technical, and critical-thinking skills to support credible legal outcomes. These calls align directly with SDG 16's emphasis on building institutional capacity for effective justice delivery. Another aspect is the investigative techniques used by forensic investigation officers. For instance, these experts do more than review records and conduct statistical analyses. Forensic investigations also interview employees and key witnesses [3]. These forensic accounting interviews can uncover additional information or elicit admissions. A robust, scientifically validated forensic method is essential to maintain public trust in criminal justice systems. Adopting and standardising such methods supports Sustainable Development Goal (SDG) 16.3, which seeks to "ensure equal access to justice". Additionally, forensic investigation officers' knowledge is required.

The forensic investigation officers' discipline ensures the integrity of the evidence throughout the investigation. Forensic investigation officers must maintain the chain of custody and gather the evidence from reliable sources in a legally sound manner [4]. This disciplined adherence ensures due process and reinforces institutional reliability, a core aspect of SDG 16. Forensic investigation officers must also be skilled communicators, both in writing and speaking, and in teamwork. Forensic investigation officers must be able to explain complex financial concepts in a way that team members can understand [4]. It requires multidisciplinary collaboration among investigators, scientists, legal experts, and international bodies. This collaboration facilitates information exchange, proficiency testing, and collective responses to challenges, reflecting SDG 16's call for cooperation in upholding justice.

The absence of professional attributes among forensic investigation officers is expected to increase fraud, primarily due to delays in resolving cases within the designated timeframe. As red flags become apparent, further inquiry should be conducted [5]. Forensic investigation officers possess a comprehensive understanding of legal principles and protocols. Nevertheless, the lack of requisite knowledge and competencies has led governmental and corporate entities to exploit legal frameworks to their own benefit. Forensic investigation officers play a crucial role in uncovering and preventing financial fraud within the organisation by carefully reviewing financial data, identifying anomalies, and implementing controls to reduce risk [5]. Hence, to ensure a smooth and systematic investigation, forensic investigation officers must maintain a high standard of quality and professionalism.

Multiple studies have investigated the impact of forensic investigative skills, digital techniques, knowledge, discipline, and teamwork on the efficiency of the forensic investigation process. Skills can improve the outcomes of a project, investigation, or decision-making process by paying closer attention to subtleties, patterns, and inconsistencies. According to a study by [6], forensic investigation officers need to be able to describe everything they saw before the crime to determine which evidence is significant, making observation skills crucial. [7] mentioned that flexibility and adaptability are important in forensic investigation. Forensic investigation officers may react to novel situations and information with this skill. Developing a growth mindset that sees obstacles as learning opportunities and engaging in improvisation activities can help forensic investigation officers become more flexible and adaptive. Further, [8] stated that building relationships and networking skills is important to forensic investigation.

Additionally, [9] examines the elements influencing the transfer of investigative interviewing skills from the training setting to the police workplace. Approach, design, and methodology: interviews with forty officers were undertaken to investigate the factors influencing and preventing efficient skill transfer. The data underwent inductive analysis, and the results were compared thematically with pre-existing research findings in adult training. The findings show that factors such as trainee motivation, perceptions of the value and relevance of the training, and readiness to perform the task positively correlated with the investigative interviewing skills process in the training environment and were translated into the police workplace. In addition, a previous study supporting the hypothesis formulation found that forensic investigation officers improve their abilities by paying close attention to fraud details, thereby enhancing project outcomes [9]. Developing observation skills through active listening, note-taking, mindfulness, and feedback can enhance their performance. The importance of flexibility, adaptability, and networking skills in forensic investigation. Networking helps access diverse ideas. Based on the above arguments, the following hypothesis is developed:

There is a relationship between forensic investigation officers' skills and the investigation process.

As noted in [10], forensic investigators' expertise significantly influences money laundering operations. The results pertaining to the forensic investigator's proficiency will enable the decision-maker to leverage the

investigator's investigative capabilities. [10] highlights the significance of miscommunication in forensic investigations and its potential contribution to wrongful convictions. According to them, forensic investigators can recover and analyse data from various digital storage devices using forensic and investigative methods. Several digital storage devices include CDs, floppy discs, external hard drives, and USB drives (pen drives). This approach or procedure helps retrieve lost or valuable data when the storage medium is unavailable. It is now possible to consider forensic analysis a subdomain of digital forensics. To retrieve and analyse data, certain storage device conditions, such as burnt, damp, or damaged drives, will be considered.

Therefore, the study shows a relationship between digital forensic storage devices in investigation techniques and the forensic investigation process. Based on a study by [11], the primary goal is to evaluate the use of forensic methods, data, and fraud prevention. They revealed, among other things, that investigative digital techniques have a positive, significant impact on the integrity of the financial statement investigation process for listed insurance companies in Nigeria. In contrast, [12] note that the traditional forensic investigation method is an essential starting point for forensic inquiries. To more effectively detect intricate fraudulent patterns, modern forensic investigation combines conventional techniques with sophisticated data analytics tools. Forensic investigation techniques frequently combine with traditional and digital investigative methods, such as email analysis, password recovery, asset tracing, document scrutiny, and employee interviews, to provide a complete picture of potential fraud.

In addition, [13] emphasises the importance of forensic investigation in assessing a company's performance. They use internal and external documents, including balance sheets and profit-and-loss statements, to compute forensic indices and ratios. They also examine third-party documents, such as bank statements, to ensure accuracy and consistency. Hence, this study develops the following hypothesis:

There is a relationship between forensic investigation officers' digital techniques and the investigation process.

By examining a few specific digital investigation process models that identify the common process phases, [14] proposes a common database forensic investigation method. According to [14] findings, identifying commonly shared processes can make it easier for new forensic investigators to acquire the knowledge needed to understand digital forensics. It can also serve as the cornerstone for improving a new set of procedures. Hence, a relationship exists between sharing digital forensic processes and forensic investigators' knowledge. In addition, the previous study that supports the hypothesis formulation and emphasises the importance of holistic knowledge in forensic investigations underscores the need for professionals to effectively address the complexities of fraudulent activities and corruption. According to them, legal knowledge, including ISAs and GAPP, is crucial for forensic investigators to detect financial crimes. Officers must adhere to these standards for data collection, risk evaluation, and expert opinions. Thus, the following hypothesis is developed:

There is a relationship between forensic investigation officers' knowledge and the investigation process.

Based on the studies discussed below, the hypothesis is formulated. According to the study by [15], it uses qualitative research and interpretive phenomenological analysis (IPA) to examine attitudes and steps taken before conducting an investigative interview. The results indicate a positive correlation between police officers' attitudes and their presentation during the investigative interviewing process. Reliable, more comprehensive information can be produced by participants who establish rapport and are well-prepared with the required resources. Officers' opinions may affect how appropriately and effectively the Nigerian Police apply forensic science procedures, given the crucial role that IPOs play in forensic science within the police department [16]. Thus, establishing the proper framework for properly integrating forensic science within the police system depends significantly on how officers discipline, view, and value the field [16]. In addition, a study by [17] found that positive attitudes and organisational discipline in resource management among forensic investigators were likely to encourage employees to participate in their work and remain with the company. A forensic investigator's assessment of an innovation's observability, relative advantage, compatibility, trialability, and complexity influences whether they embrace the discipline during the investigation process [17]. Hence, there is a significant positive relationship between the discipline of forensic investigators during the investigation process. In addition, a previous study that supports the hypothesis formulation [18] emphasises the importance of objectivity and professionalism in forensic investigations, highlighting the need for unbiased assessments and the resolution of conflicts in legal proceedings. Based on the arguments, the following hypothesis is developed:

There is a relationship between forensic investigation officers' discipline and the investigation process.

Modern investigators seem to view effective communication as essential to success, especially for many tasks they must perform during an investigation. Forensic investigators can improve their sense of justice by integrating fairness into their management system and teamwork [19]. By implementing policies that adhere to perceived normative rules of justice, such as equitable outcomes, impartial and consistent procedures, treating team members with respect and dignity, and effective communication through truthful, accurate, and complete explanations regarding procedures and outcomes, fair management systems could improve reciprocal relationships among employees while working together as a team [19].

Moreover, evaluating one's standing within a group or company through fairness assessments is a valuable tool connected to individual actions, attitudes, and employee satisfaction. Treating others fairly simply becomes ingrained as a means of being respected and welcomed into the community. The significance of fairness perceptions lies in their ability to shape people's attitudes and conduct in collaborative settings. Throughout the investigation, forensic investigators who perceive mistreatment will view the organisation as unjust and act on these persistent beliefs. Hence, it shows that teamwork among forensic investigators is related to the investigation process. In addition, [19] emphasises the importance of a team with the necessary skills and experience for fraud investigations. Internal forensic investigators may be biased, but external teams are perceived as more impartial. Collaborative efforts from various disciplines are necessary for successful investigations. Accordingly, teamwork remains significant despite controversy, as it requires clearly defined roles, efficient communication, and trust among team members. As the literature suggests, this may explain why there is no expected positive relationship between spiritual well-being and quality of life. Hence, this study develops the following hypothesis:

There is a relationship between forensic investigation officers' teamwork and the investigation process.

2. METHODOLOGY

This study employs quantitative and qualitative methodologies to explore the professional traits necessary for forensic investigators within the Royal Malaysia Police (RMP) and the Malaysian Anti-Corruption Commission (MACC). A total of 103 surveys were collected by extracting data from Google Forms. Mention the study period and the geographical distribution of the study. Participants in this study remained anonymous, and no financial incentives were offered to promote voluntary questionnaire completion. The survey instrument comprises several distinct components divided into seven sections. Section A addresses demographic information, including gender and age. Sections B through F focus on independent variables related to forensic investigators' investigative skills, techniques, knowledge, discipline, and teamwork. Finally, Section G serves as the dependent variable, examining the investigation process as respondents assessed it based on their years of specific field experience. The questionnaires utilised in this research were adapted from instruments previously validated in a large-scale study [20].

In addition, data for this study were collected through interviews. Face-to-face interviews were conducted using purposive sampling to select the subjects. Nine forensic investigation officers participated, with four (4) from the RMP and five (5) from the MACC. The forensic officers from the RMP were numbered 1-4, while the MACC officers were numbered 5-9. Each interview session lasted between 1.5 and 2 hours. The interviewees were prompted to discuss the following topics:

- Overview of the forensic investigation process
- Investigative skills of forensic investigation officers
- Investigative techniques employed by forensic investigation officers
- Knowledge possessed by forensic investigation officers
- Work ethics of forensic investigation officers

A semi-structured interview format was utilised for data collection in this study. The questions were primarily open-ended, allowing the researcher to pursue further inquiries based on significant responses. The interviewer could also ask follow-up questions in response to noteworthy replies. All interview sessions were recorded to capture relevant information, and the researcher took notes as a backup in case of recording issues. The recorded interviews were transcribed and thematically summarised into the following categories: skills, investigative techniques, knowledge, and work ethics.

3. RESULTS AND DISCUSSION

Demographic Analysis

Table 1 presents the respondents' demographic details, showcasing the diversity and experience of the forensic investigation officers surveyed by the RMP and the MACC. Most respondents are male (75.7%), compared to females (24.3%), indicating a predominantly male presence in forensic investigation roles. A substantial proportion of respondents (68.0%) have more than 10 years of service, highlighting the presence of experienced personnel. Those with 5-10 years of experience account for 23.3%, while 8.7% have less than 5 years, contributing to the diversity of service durations. An impressive 94.2% of respondents have successfully settled at least one case, reflecting significant practical investigative experience. These demographics emphasise the seasoned and well-educated composition of the forensic investigation workforce, aligning with the research focus on professional traits and their influence on investigative effectiveness within MACC and RMP.

Table 1: Demographic Analysis

Item	Frequency	Per cent
Gender		
Male	78	75.7
Female	25	24.3
Working Sector		
RMP	72	69.9
MACC	31	30.1
Duration of Service		
< 5 years	9	8.7
6 - 10 years	24	23.3
> 11 years	70	68.0
One resolved forensic case.		
Yes	97	94.2
No	6	5.8

Descriptive Analysis

Table 2 shows that a substantial majority of respondents strongly agreed with item 1, which achieved an impressive mean score of 4.82 on a 5-point Likert scale. The lower mean score of 3.40 suggests varying opinions on the viability of handling multiple cases simultaneously in the context of thorough investigative work.

Table 2: Forensic Investigation Process

No.	Item	Mean	SD
1.	An investigator needs to understand the subject matter by thoroughly studying the case, including the offender's background and available evidence.	4.82	0.653
2.	An investigator must complete procedures within the given time frame.	4.69	0.741
3.	An investigator needs to handle several cases at a time.	3.40	1.271
4.	Most of the time, an investigator must request an extension of findings.	3.62	1.401
5.	An investigator needs to investigate regardless of whether the individuals are high-profile or low-profile.	4.81	0.561
6.	Political influence affects the investigation process.	3.94	1.371
7.	Commitment and involvement from other enforcement agencies can assist the investigation process.	4.66	0.811
8.	Successful audit trails can speed up the investigation process.	4.57	0.859

9.	Getting complete documentation for handling cases can assist the investigation process.	4.73	0.769
10.	Advanced information technology systems can assist the investigation process.	4.76	0.678

According to Table 3, most respondents agreed with question nine, which garnered a mean score of 4.65. In contrast, question ten emphasised the importance of “enhanced skills,” noting that professionals must possess specialised abilities to function optimally, including fraud detection, internal controls, testifying, audit evidence, and asset tracing. However, question six received the lowest mean score of 4.37. The expertise of forensic investigators is crucial to the success of the investigative process, as their skills greatly enhance the accuracy and effectiveness of evidence collection and analysis.

Table 3: Skills of Forensic Investigator Officer

No.	Item	Mean	SD
1.	Critical thinking is the ability to explain opinions and facts.	4.50	0.906
2.	Communication: the ability to effectively communicate in writing via reports and speech.	4.60	0.844
3.	Analytical Proficiency: the ability to prepare complete documentation.	4.54	0.838
4.	Deductive analysis: the ability to detect red flags during the investigation.	4.52	0.815
5.	Investigative flexibility: the ability to move away from past investigations/cases and conduct a thorough examination.	4.55	0.825
6.	Unstructured problem solving: the ability to independently deal with and establish statements/opinions on each case.	4.37	0.918
7.	Detail-oriented: the ability to analyse significant financial data and notice subtle patterns or other abnormalities.	4.38	0.898
8.	Technology savvy: as technology becomes more advanced, the ability to keep up, stay current, and have a vast knowledge of technology and software products.	4.60	0.784
9.	Positive critical mind: the ability to think like a criminal; the only difference is that your intelligence should be used to combat crime rather than perpetrate fraud.	4.65	0.763
10.	Enhanced skill: Being specialists and professionals in what they do also requires the following enhanced skills to function optimally: fraud detection, internal controls, testifying, audit evidence, asset tracing, etc.	4.65	0.763

Next, Table 4 shows that most respondents agreed with the first question, with a mean score of 4.77 (SD = 0.660). Conversely, the lowest mean score of 4.53 pertained to statement four. This investigative technique is vital to the overall investigative process, as numerous respondents highlighted. It encompasses essential methods for collecting, analysing, and interpreting evidence. The effectiveness of an investigation is contingent on the quality of these techniques, underscoring the importance of researchers and professionals prioritising and refining their methodologies to achieve accurate results.

Table 4: Investigative Techniques of Forensic Investigative Officer

No.	Item	Mean	SD
1.	Interviewing and Interrogation: An investigator needs to understand the subject's intention, effective inquiry, and the ethical and legal aspects of obtaining information.	4.77	0.660
2.	Using Computer-Based Software Tools: An investigator must be literate in information technology (IT).	4.71	0.709
3.	Offender Profiling: An investigator should know how to identify the offender and link several individuals, organisations or events together.	4.72	0.692
4.	Surveillance: An investigator must continuously monitor someone or something to obtain information.	4.53	0.905
5.	Observation and Documentation: An investigator needs to document findings in writing or through observation notes and be able to interpret the findings.	4.57	0.812
6.	Technique Flexibility: the ability to modify the investigation technique on a	4.62	0.768

	case-by-case basis and conduct a thorough examination.		
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Additionally, Table 5 highlighted that most respondents agreed with question three, scoring a mean value of 4.65. They also agreed with question five, achieving a mean score of 4.67. The lowest mean score was recorded for question number four ($M = 4.60$, $SD = 0.771$). Feedback from respondents indicates a clear consensus that a thorough understanding of the Anti-Money Laundering Act 2001 and strong, specific legal knowledge are indispensable for conducting effective and credible forensic investigations.

Table 5: Knowledge of Forensic Investigative Officer

No.	Item	Mean	SD
1.	Malaysian Anti-Corruption Commission Act (2009). The act was enacted to establish the MACC and make better provisions for preventing corruption.	4.65	0.750
2.	The Whistleblower Protection Act (2010) was enacted to combat corruption and other wrongdoing and to protect individuals who whistle-blow to relevant enforcement agencies.	4.63	0.767
3.	Anti-Money Laundering Act (2001). An Act was enacted dealing with money laundering and anti-terrorism financing.	4.69	0.728
4.	Financial Accounting and Auditing Knowledge: Understanding basic accounting principles and International Auditing Standards (IAS).	4.60	0.771
5.	Specific Legal Knowledge: understanding basic legal processes and legal issues.	4.67	0.821

According to Table 6, respondents strongly agreed with question ten, which received a mean value of 4.82. Conversely, the lowest mean score of 4.51 indicates that forensic investigators are expected to uphold fairness throughout the investigation. Additionally, they should implement a zero-tolerance policy regarding any actions that compromise ethical standards or legal regulations during their work.

Table 6: Discipline of Forensic Investigative Office

No.	Item	Mean	SD
1.	One should always take responsibility for one's actions.	4.77	0.660
2.	One should always do what is right and just.	4.72	0.678
3.	One should not pass judgment until they have heard all the facts.	4.75	0.750
4.	Always perform tasks according to standard operating procedure, code of ethics, and existing work manual.	4.73	0.629
5.	One should work to the best of one's ability.	4.74	0.671
6.	I constantly look for ways to use my time productively.	4.76	0.664
7.	One should not tolerate acts that violate work ethics and the law.	4.51	0.895
8.	Trying to correct mistakes for the sake of the integrity of the department.	4.75	0.682
9.	Taking something that does not belong to you is never appropriate.	4.79	0.681
10.	People should be fair in their dealings with others.	4.82	0.638

According to Table 7, most respondents strongly agreed with question eight, which received a mean score of 4.81. Additionally, respondents concurred with question two, which had a mean score of 4.62, indicating that the discipline of forensic investigation officers plays a crucial role in ensuring the effectiveness of the investigative process.

Table 7: Discipline of Forensic Investigative Officer

No.	Item	Mean	SD
1.	I am always ready to help team members in any situation.	4.72	0.663
2.	I have a compatible relationship and understanding between team members and the leader.	4.62	0.756
3.	Maintaining the team's integrity is a duty and a trust.	4.79	0.636
4.	Cooperation and collaboration are the most critical work principles.	4.74	0.713

5.	Good communication between team members and leaders is essential to success.	4.79	0.652
6.	I constantly look for ways to use my time productively.	4.77	0.660
7.	The team leader plays an important role.	4.79	0.652
8.	Cooperation, communication, and leadership contribute to a team's effectiveness.	4.81	0.627
9.	Effective team management is essential for undivided member commitment.	4.78	0.641
10.	Team members must be knowledgeable, capable, and trust each other.	4.79	0.636

Multiple Regression Analysis

Table 8's multiple regression shows how various professional traits influence the investigation process. Unstandardized coefficients (B) indicate the change in the dependent variable per unit change in predictors. The baseline (B=0.816, p=0.001) corresponds to all predictors being zero. Investigative skills have a significant positive impact (B=0.323, p=0.003; beta=0.411), implying improvements in these skills greatly enhance investigation effectiveness. The discipline and investigative skills of forensic officers greatly influence the success of criminal investigations. Statistical analysis shows a significant correlation (B = 0.382, 0.323; p = 0.014, 0.003), indicating that better discipline and expertise improve investigation quality. Conversely, investigative technique (B = 0.174, p = 0.185), knowledge (B = -0.108, p = 0.305), and teamwork (B = 0.001, p = 0.996) do not significantly affect investigations. Overall, skills and discipline are crucial, while techniques, knowledge, and teamwork are less impactful within the Malaysian Anti-Corruption Commission and the Royal Malaysian Police.

Table 8: Multiple Regression Analysis

	B	Standard Error	Standard Coefficients Beta	t.	Sig.
Constant	0.816	0.232		3.519	0.001
Investigative Skills	0.323	0.106	0.411	3.038	0.003***
Investigative Technique	0.174	0.131	0.210	1.336	0.185
Investigative Knowledge	-0.108	0.105	-0.130	-1.031	0.305
Discipline of Forensic Investigative Officer	0.382	0.153	0.409	2.501	0.014**
Teamwork of Forensic Investigative Officer	0.001	0.158	0.001	0.006	0.996

*p<0.10; **p<0.05; ***p<0.01

Following Hypothesis 1, it can be concluded that the hypothesis, which suggests a positive correlation between forensic investigation officers' skill level and the effectiveness of the investigation process, is supported (p = 0.003). This finding indicates that enhanced investigative skills contribute to improved processes and outcomes. Supporting this conclusion, the importance of investigative skills in preventing the recurrence of similar incidents lies in effectively identifying the source, progression, and impact of an event. Successful investigators require a specific skill set, as problem-solving techniques play a significant role in influencing outcomes. In discussing this matter, Investigation Officer 5 stated:

"As digital forensics professionals, we must understand technology, especially regarding digital case materials. At MACC, we assign different case items like computers, mobile phones, audio and video recordings, and documents to each branch. Our expertise is linked to our specific technologies and ability to communicate clearly in court. One key skill we have is writing reports that everyone can easily understand. We simplify technical terms into plain language. We can access Android and Apple mobile devices using the right software, an essential skill to develop. The same applies to computers."

This study is consistent with the assertion of [21] that several domains of skills measurement, consisting of analytical, social, and technical domain skills, are essential for performing forensic tasks effectively. This strong correlation proves that these skills positively affect investigative work. This aligns with the findings of [22], who note that professionalism, which includes understanding and applying legal prowess and the capacity to analyse evidence, is instrumental for police officers to deal with complicated cases. [23] also note that active professional development and training are critical to sustain and develop these competencies so that forensic officers are adequately equipped and continue to be effective in their working environment. As mentioned by Investigation Officer 2:

"In our commercial unit, we look at multiple sectors. Gathering documents is essential during our investigation. We also need to connect with people outside the government. However, when we contact other companies, they often ask for documents or a lawyer, even though there are rules in place. This makes it harder for us to obtain the documents needed. As police officers, we cannot access legal help. Only the prosecutor can provide legal guidance. So, we will ask the prosecutor for legal assistance."

Additionally, hypothesis 4 shows a positive correlation between forensic investigation officers' discipline and the investigation process ($p\text{-value}=0.014$). This indicates that increased orderliness among the officers improves the investigation process. A study by [23] showed that disciplined employees are more likely to succeed and fortify their ties to the organisation. Maintaining everyone's mental equilibrium through disciplined behaviour enables an organisation to achieve its objectives effectively. Discipline for forensic investigators at work is crucial because it allows them to grow and learn from criticism, even when they may not have recognised they were misbehaving. A disciplinary policy can also shield forensic investigators from legal action should they become involved in a fraud forensic inquiry. Added by Investigation Officer 4:

"Upon receiving a complaint, an officer is designated to investigate and must maintain discipline throughout the process. Forensic officers may be engaged depending on the case's specifics, particularly in cases involving accounting or ICT materials. Their role is to offer specialised knowledge to assist in preparing an official report for the court. The investigating officer oversees case management, while the forensic officer supports as needed."

[23] have contended that there are always benefits to maintaining discipline in forensic evidence investigations, mainly because the results of the studies will be more credible and could be less prone to bias. This assertion postulated that forensic officers must remain disciplined to reduce suspected case complexity and enhance the reliability of results. Speaking of discipline, they emphasise that ethics and compliance with regulations are crucial in forensic settings. Investigation officer 2 emphasised that:

The headquarters of the Royal Malaysian Police in Bukit Aman conducts an annual 7-day training program centred on the department's established key performance indicators to maintain discipline. The officers are trained to carry out investigations in a lawful manner."

The research hypothesis, asserting a significant positive relationship between investigative techniques and the investigation process, has been rejected at a 0.185 significance level. This finding indicates that, within the parameters of this model, applying various investigative techniques has minimal impact on the overall efficiency of the investigation practices employed. This conclusion is further supported by [24], which revealed that the effectiveness of specific investigative techniques is often undermined by crucial limitations in information access. A persistent challenge investigators face is obtaining relevant and timely information, which is a bottleneck in the investigative process. Inadequate information can lead to incomplete analyses and hinder the ability to draw accurate conclusions, ultimately affecting the outcomes of investigations. Investigation officer 1 further emphasised that:

"Technology can assist in the investigation process, but obtaining the necessary documents is crucial to avoid delays."

Compiling all required proof can be challenging when important data is kept in several systems or departments. Consider looking into a financial fraud case, for instance, if the suspect's transactions are dispersed over several platforms and accounts. Compiling this data may take some time, and the cooperation of many stakeholders is needed. [24] also use similar reasons, such as a lack of training or unfamiliarity with the officers, to explain issues related to sophisticated techniques. [24] agree that applying the right technologies is necessary, yet stressed that

their efficiency directly correlates with the ability of the officers to apply them as expected. The effectiveness of investigative techniques depends on the sophistication of the processes and the skills used while applying them to practical contexts.

The hypothesis identifying a positive, statistically significant correlation between investigative knowledge and the investigation process is rejected ($p=0.305$). This implies that officers' level of knowledge does not have the potential to influence the process in this context. Enough funding, workforce, and technology are required to undertake efficient investigations. Nevertheless, investigators frequently encounter obstacles in these domains, which may hinder their ability to obtain data or conduct in-depth investigations.

In line with the aforementioned idea, [25] have also noted that investigative knowledge must be thoroughly revised and enacted to experience incredible positive outcomes. According to [9], forensic investigations are not a simple linear process and require knowledge and application. The effectiveness of knowledge applied in a professional setting is much improved with other qualities, such as skills and discipline. In another view, [25] stated that the only way is to stress the need for renewed focus on interprofessional education to ensure that knowledge leads to practical effectiveness. An investigation officer 4 further added:

"To conduct a thorough investigation, it is crucial to identify which laws pertain to the case. In the past, we have used the Penal Code as our reference. Upon receiving the report, we will carefully analyse the provided information. This evaluation will assist us in pinpointing the relevant laws, the necessary documents to gather, and the agencies we should contact to obtain them. For example, if the case involves financial misconduct, we will forward evidence and documents to the forensic unit in Bukit Aman to trace the flow of funds. In commercial crimes, laws such as the Computer Crime Act and the Money Laundering Act are fundamental knowledge for officers investigating commercial matters."

The hypothesis of a positive correlation between forensic investigation officers' teamwork and the investigation process is also rejected ($p=0.996$). Teamwork does not significantly affect the investigation process in this study. The teamwork does not affect the investigation process much, since external intervention may significantly impact the research process. Influential people, internal politics within organisations, or external pressure are some of the origins of this involvement. As highlighted by investigation officer 1:

"The word 'investigation' can have various meanings based on the situation. Typically, an investigation entails gathering witnesses' testimonies and collecting evidence related to a particular matter. Upon receiving a report, we review the complaint and determine how many witness statements are needed. We also collect pertinent evidence. Following this, we evaluate whether the situation necessitates additional investigation. In the commercial field, there are two categories of cases: civil and criminal. If the case falls under civil law, we refrain from further investigation and recommend that the complainant pursue civil action. Conversely, if the case is criminal, we gather more evidence. Commercial cases often encompass numerous documents, so we scrutinise them to pinpoint any suspects."

In summary, it has been established that a combination of specialised skills and strict discipline is crucial for improving the effectiveness of forensic investigations conducted by the MACC and the RMP. These elements are distinct from how techniques, knowledge, and teamwork have traditionally been applied in investigative models. Specifically, the MACC relies on forensic accounting and digital forensics to uncover financial irregularities, while the RMP focuses on crime scene analysis and evidence collection to support criminal prosecutions. By fostering a culture of continuous training and collaboration among forensic experts, law enforcement agencies can enhance their investigative capabilities, leading to more effective outcomes in combating corruption and criminal activity in Malaysia.

4. CONCLUSION

In Malaysia, institutions such as the Malaysian Anti-Corruption Commission (MACC) and the Royal Malaysian Police (RMP) have intensified efforts to develop competent forensic investigators as part of national strategies to combat corruption and enhance public trust. These officers are often on the frontlines of anti-corruption initiatives, making their conduct and capabilities directly relevant to achieving the targets of SDG 16, particularly 16.5 (substantially reduce corruption and bribery) and 16.6 (develop effective, accountable, and transparent institutions). Furthermore, professional traits align with broader principles of good governance and institutional sustainability. For instance, teamwork and inter-agency collaboration support capacity building and knowledge sharing, while discipline and objectivity ensure procedural fairness in investigations. When forensic

professionals embody these traits, the investigative process becomes more effective, credible, and aligned with international justice standards. Thus, developing and institutionalising professional traits among forensic investigators is not merely a matter of capacity-building but a strategic investment in national integrity and sustainable development. Empowering such professionals ensures that investigations contribute to a transparent justice system, thereby upholding the rule of law and advancing Malaysia's progress toward SDG 16.

This research contributes to the body of knowledge by bridging Sustainable Development Goal 16 (SDG 16) with forensic investigative traits, focusing on the Malaysian Anti-Corruption Commission (MACC) and the Royal Malaysian Police (RMP). Theoretically, it offers a novel framework linking professional traits such as discipline, investigative skills, and teamwork to promoting justice, integrity, and institutional accountability. It provides actionable insights for improving enforcement recruitment, training, and operational effectiveness. Methodologically, it presents a context-specific approach to evaluating forensic competencies within the framework of sustainable development. The findings aim to inform policy enhancements and foster public trust in enforcement agencies, ultimately contributing to more transparent, effective, and accountable institutions aligned with SDG 16.

This research is subject to several limitations. Firstly, its findings are context-specific, focusing solely on Malaysia's MACC and RMP, which may limit the generalizability of the results to other countries or enforcement agencies with different structures and legal frameworks. Secondly, access to sensitive or classified information within these institutions may constrain the depth of data collection, leading to potential gaps in fully capturing all relevant forensic traits. Future research could expand this study by incorporating comparative analyses across different countries or regions to examine how forensic investigative traits contribute to SDG 16 in varying legal, cultural, and institutional contexts. Longitudinal studies may also be valuable for observing how professional traits evolve in response to policy changes, technological advancements, and shifts in global governance. Broader stakeholder perspectives, including judiciary, civil society, and victims, could also be integrated to provide a more holistic view of how forensic practices align with the broader goals of justice, accountability, and institutional strength outlined in SDG 16.

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