

THE ROLE OF MODERN TECHNOLOGY IN CRIMINAL INVESTIGATION BY PHILIPPINE NATIONAL POLICE: AN ASSESSMENT

ABSTRACT

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In today's digital era, crime has extended beyond physical boundaries into cyberspace, leading to a rise in cybercrimes such as hacking, online fraud, identity theft, and data breaches. These offenses have become increasingly common and impactful, posing significant challenges to law enforcement agencies. This study aims to assess the role of modern technology in criminal investigations conducted by the Philippine National Police (PNP) Cyber Forensic Division. The study surveyed a total of 50 respondents, comprising 20 personnel from the Cyber Forensic Division and 30 community members. It was conducted at Camp Karingal, the headquarters of the Quezon City Police District. Utilizing a descriptive research design, the study employed purposive sampling to select participants with relevant experience and knowledge in the field of cybercrime and digital investigations. The demographic profile of the respondents revealed that 30% were aged 18–25, while only 4% were above 51. Males comprised 60% of the total respondents, with females accounting for the remaining 40%. In terms of marital status, 50% were married, and only 2% were separated. Regarding educational attainment, 60% of the respondents were college graduates, while just 2% had attained postgraduate degrees. In terms of length of service, 48% had been in service for 1–3 years, 16% for 4–6 years, 20% for 7–10 years, and another 16% had over 11 years of experience. Respondents strongly agreed on the vital role of modern technology in criminal investigations. Among the technological tools assessed, digital forensic services received the highest weighted mean score of 3.61, followed by mobile forensics at 3.54, and security information management at 3.53. Digital forensic services were viewed as essential in presenting complex digital evidence in a comprehensible manner. Mobile forensics was recognized for its capacity to extract critical evidence from mobile devices, while security information management was acknowledged for safeguarding sensitive data through encryption and access control systems. Despite the positive impact of modern technology on criminal investigations, challenges remain—chief among them being weak cybersecurity measures, which pose a significant threat to the protection of sensitive information. This issue was identified as the most pressing concern by 68% of respondents. To address this, 78% of respondents recommended the implementation of robust cybersecurity protocols, including encryption, firewalls, and access controls. These findings offer valuable insights for law enforcement agencies, which can use them to enhance their investigative and security response strategies. Furthermore, regular training sessions are essential to equip forensic investigators with the skills needed to respond to evolving cyber threats. Criminology students and future researchers can also benefit from this study, ensuring they are well-informed and prepared with up-to-date knowledge in the field of cyber forensics.

RECOMMENDED CITATION

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