



THE INFLUENCE OF LEGAL LITERACY AND LAW ENFORCEMENT EFFECTIVENESS ON CYBERCRIME PREVENTION

Sumarna

Universitas Suryakencana, Cianjur, Indonesia

sumarna@unsur.ac.id

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ABSTRACT

This study examines the influence of legal literacy and law enforcement effectiveness on the prevention of cybercrime. As cybercrimes increasingly pose threats to individuals, organizations, and governments worldwide, understanding how legal awareness and the effectiveness of law enforcement mechanisms contribute to mitigating these crimes is crucial. The study uses a quantitative research design, with data collected from 300 respondents, including internet users and 50 law enforcement officers in Indonesia. The results indicate that higher legal literacy significantly correlates with better cybercrime prevention, as individuals with greater legal awareness are more proactive in protecting themselves online. Furthermore, the study finds that effective law enforcement, characterized by timely responses and adequate training for officers, plays a vital role in reducing cybercrime. The regression analysis confirms that both legal literacy and law enforcement effectiveness positively influence cybercrime prevention. Based on these findings, the study recommends enhancing legal education and improving law enforcement training to create a more secure digital environment. The study provides valuable insights for policymakers and law enforcement agencies to develop comprehensive strategies for cybercrime prevention, emphasizing the need for improved public legal awareness and stronger institutional capabilities.

A. INTRODUCTION

Cybercrime is a form of criminal activity that arises from the misuse of Information and Communication Technology (ICT), encompassing various offenses such as online fraud, identity theft, hacking, the dissemination of false information, and other related cyber-based crimes.¹ Along with the rapid advancement of ICT, human interaction has increasingly shifted into the virtual sphere, transforming cyberspace into a highly complex environment that

¹ Reda Manthovani, "Indonesian Cybercrime Assessment and Prosecution: Implications for Criminal Law," *International Journal of Criminal Justice Sciences* 18, no. 1 (2023): 441.

presents significant opportunities for criminal exploitation. This development has broadened the scope and sophistication of cybercrime, making it more difficult to detect and prevent.² The impacts of cybercrime are extensive and multifaceted, affecting not only individual victims but also institutions, governments, and the overall economy. Individuals may suffer financial losses, identity misuse, and violations of privacy, while institutions and governments face threats to data security, public trust, and the stability of digital systems. On a broader scale, cybercrime can disrupt economic activities, weaken cybersecurity infrastructure, and undermine national security.³

In the Indonesian context, the seriousness of cybercrime is reflected in empirical data reported by the National Counter-Terrorism Agency (*Badan Nasional Penanggulangan Terorisme*/BNPT). According to BNPT, cybercrime cases in Indonesia increased significantly in 2023, with common forms including phishing attacks, malware infections, and data breaches.⁴ This trend indicates that cybercrime has become a growing and urgent challenge, requiring comprehensive preventive and enforcement measures to protect individuals, institutions, and the state in the digital era.

The main problem in this research lies in the increasing number of cybercrime cases in Indonesia, which has not been optimally matched by the level of public legal literacy and the effectiveness of law enforcement. Although regulations related to cybercrime are in place, the low level of legal understanding in the digital space, along with the limited capacity and coordination of law enforcement officials, means that cybercrime prevention and response efforts have not been optimally implemented.⁵ This situation creates a gap between the development of cybercrime and the legal system's ability to respond effectively.

To combat cybercrime, two primary factors need to be addressed: legal literacy within society and the effectiveness of law enforcement. Legal literacy refers to society's understanding of their rights and obligations in the online

² Yudha Chandra Arwana, "Victims of Cyber Crimes in Indonesia: A Criminology and Victimology Perspective," *Semarang State University Undergraduate Law and Society Review* 2, no. 2 (2022): 188.

³ Hassan Tariq, Mamona Nazir, and Rizwan Arif, "Cybercrime Prevention and Legal Literacy: An International Perspective," *International Journal of Cybersecurity* 15, no. 4 (2021): 115. See too, Muhammad Arafat, and Alexander Tito Enggar Wirasto, "Kebijakan kriminal dalam penanganan siber di era digital: Studi kasus di Indonesia," *Equality: Journal of Law and Justice* 1, no. 2 (2024): 225.

⁴ BNPT, Annual Report on Cybercrime Prevention 2023, *Wikipedia*, 2023, https://id.wikipedia.org/wiki/Badan_Nasional_Penanggulangan_Terorisme. Accessed in December 12, 2025.

⁵ Adinda Lola Sariani Dinda, "Efektivitas Penegakan Hukum Terhadap Kejahatan Siber di Indonesia," *AL-DALIL: Jurnal Ilmu Sosial, Politik, dan Hukum* 2, no. 2 (2024): 74. See too, Zulfan Akbar Syahfallah, Askari Razak, and Salle Salle, "The Effectiveness of Law Enforcement on Cybercrime: A Case Study of Online Fraud in South Sulawesi," *SIGN Jurnal Hukum* 7, no. 2 (2025): 1122.

world, as well as the legal consequences they might face if they engage in unlawful activities.⁶ In this context, legal literacy can function as the first line of defense in preventing cybercrime. A society with sufficient legal knowledge is more likely to exercise caution when interacting online and will be better equipped to recognize and avoid behaviors that could jeopardize their safety in cyberspace.⁷

However, legal literacy alone is insufficient to combat cybercrime. Effective law enforcement also plays a crucial role. Effective enforcement is not solely dependent on clear and comprehensive regulations but also on the capacity of law enforcement agencies to address cybercrime cases quickly and appropriately. Research by Lestari and Suryana⁸ reveals that although Indonesia has enacted several laws related to cybercrime, such as the Information and Electronic Transactions (*Informasi dan Transaksi Elektronik*/ITE) Law, the implementation of these laws faces significant challenges, including limited technological resources within law enforcement agencies and a lack of coordination among state institutions.

The novelty of this study lies in its integration of these two critical factors in preventing cybercrime: legal literacy and the effectiveness of law enforcement, a comprehensive approach that has not been extensively studied in the context of Indonesia. Most existing research has focused on only one aspect, either legal literacy or law enforcement, without considering the interplay between the two. This study aims to fill this gap by examining the combined impact of these factors on preventing cybercrime in Indonesia and offering policy recommendations to enhance the effectiveness of cybercrime prevention through improved legal literacy and stronger law enforcement.

The research questions are as follows:

1. How does public legal literacy contribute to cybercrime prevention efforts in Indonesia?
2. How effective is law enforcement in addressing cybercrime in Indonesia?
3. What is the relationship between public legal literacy and the effectiveness of law enforcement in preventing cybercrime in Indonesia?

⁶ Moh Khoizi Eriyanto, and Sihombing Rizky Agassy, "The Role of Legal Literacy in Preventing Cybercrime in Indonesia," *Journal of Legal Studies* 29, no. 1 (2022): 29. See too, Sindy, A. Ariyaningsih, Ari Andrianto, Adri Surya Kusuma, and Rina Arum Prastyanti, "Korelasi Kejahatan Siber dengan Percepatan Digitalisasi di Indonesia," *Justisia: Jurnal Ilmu Hukum* 1, no. 1 (2023): 4.

⁷ Siti Aliza Nuraini Wahdini, and Fiqri Fitrah Banu Irfansyah, "Analisis Keselarasan Pengaturan Yurisdiksi Cyber Crime dengan Implementasinya di Kehidupan Nyata," *Indonesian Journal of Law and Justice* 1, no. 3 (2024): 11.

⁸ Mega Lestari, and Risa Suryana, "Barriers in Law Enforcement of Cybercrime Cases in Indonesia," *Journal of Criminology* 34, no. 2 (2022): 89.

B. RESEARCH METHODS

This study employs a quantitative research design to examine the influence of legal literacy and law enforcement effectiveness on cybercrime prevention in Indonesia. The quantitative approach was selected to allow for systematic measurement and statistical analysis of the relationships between variables, enabling the identification of patterns and causal tendencies. Data were collected through a structured survey distributed to 300 respondents, consisting of general internet users and 50 law enforcement officers with experience in handling cybercrime cases. The inclusion of both groups was intended to capture perspectives from the demand side (public legal awareness and preventive behavior) and the supply side (institutional law enforcement capacity). The questionnaire was designed using closed-ended questions measured on a Likert scale, covering indicators of legal literacy, law enforcement effectiveness, and cybercrime prevention behavior. Prior to data collection, the instrument was reviewed to ensure clarity, relevance, and content validity in relation to the research objectives.

The data analysis process involved several stages. First, descriptive statistical analysis was conducted to illustrate the general profile of respondents and the distribution of legal literacy levels, perceptions of law enforcement effectiveness, and cybercrime prevention behavior. Second, inferential statistical techniques were applied to test the relationships between variables. Regression analysis was employed to assess the extent to which legal literacy and law enforcement effectiveness independently and jointly influence cybercrime prevention. This method was chosen because it allows for the estimation of the magnitude and direction of influence while controlling for potential overlap between variables. The significance level was set at 0.05 to ensure statistical reliability. The findings from the regression analysis provided empirical evidence supporting the study and enabled a deeper interpretation of how legal awareness and institutional capacity interact in mitigating cybercrime. Through this methodological framework, the study seeks to offer evidence-based insights that can inform policymakers and law enforcement agencies in developing more effective and integrated cybercrime prevention strategies.

C. DISCUSSION

1. Public Legal Literacy and Cybercrime Prevention in Indonesia

Cybercrime has become a global security issue with economic, political, and social implications. In Europe, cybercrime incidents have surged, particularly due to digital transformation, online financial transactions, and

increased dependence on cloud systems. Kovács and Terták⁹ highlight that the rate of cybercrime per one million internet users in Europe has tripled in the past five years, emphasizing the crucial role of digital and legal literacy in crime prevention. As technology advances faster than regulatory frameworks, law enforcement agencies face difficulties in detecting and prosecuting offenders. De Paoli et al.¹⁰ found that police cybercrime specialists across Europe identified major gaps in forensic readiness and interagency collaboration. This situation mirrors challenges in developing countries like Indonesia, where the law struggles to keep pace with digital innovation.¹¹

Furthermore, the Council of Europe's Budapest Convention remains a cornerstone for transnational cybercrime cooperation, yet its enforcement across member states still varies significantly.¹² The evolving nature of cybercrime from phishing and ransomware to disinformation campaigns requires not only stronger policing but also a legally literate population that understands how to protect their data and exercise their rights in the digital space.

Legal literacy is increasingly recognized as a societal defense mechanism against cyber threats. According to Shukurov and Jafarov,¹³ many European citizens remain unaware of digital rights and responsibilities under EU data protection and cybercrime directives, leading to higher victimization rates. Similarly, Eriyanto and Sihombing¹⁴ observed that limited understanding of national cyber regulations in Indonesia contributes to both victimization and inadvertent offending.

European initiatives emphasize the integration of digital citizenship education as part of legal literacy efforts. A large-scale study by Althibyani and

⁹ Levente Kovács, and Elemér Terták, "Financial Literacy is the Best Protection from Cybercrime," *Economy and Finance: English-Language Edition of Gazdaság és Pénzügy* 11, no. 1 (2024): 13. See too, Benoit Dupont, "Enhancing the effectiveness of cybercrime prevention through policy monitoring," *Journal of crime and justice* 42, no. 5 (2019): 512.

¹⁰ Stefano De Paoli, Jason Johnstone, Natalie Coull, Ian Ferguson, Georgina Sinclair, Patrick Tomkins, Maureen Brown, and Rebecca Martin, "A qualitative exploratory study of the knowledge, forensic, and legal challenges from the perspective of police cybercrime specialists," *Policing: A Journal of Policy and Practice* 15, no. 2 (2021): 1436.

¹¹ Khrystyna Vorobets, "The main directions of cybercrime prevention in Ukraine," *European Journal of Law and Public Administration* 6, no. 1 (2019): 77. See too, Zulfan Akbar Syahfallah, Askari Razak, and Salle Salle, "The Effectiveness of Law Enforcement on Cybercrime: A Case Study of Online Fraud in South Sulawesi," *SIGN Jurnal Hukum* 7, no. 2 (2025): 1120.

¹² Roderic Broadhurst, "Developments in the global law enforcement of cyber-crime," *Policing: An International Journal of Police Strategies & Management* 29, no. 3 (2006): 421.

¹³ Elvin Shukurov, and Uzeyir Uzeyir Jafarov, "Legal Professionals' Perspectives on the Challenges of Cybercrime Legislation Enforcement," *Interdisciplinary Studies in Society, Law, and Politics* 2, no. 4 (2023): 28.

¹⁴ Moh Khoizi Eriyanto, and Sihombing Rizky Agassy, "The Role of Legal Literacy in Preventing Cybercrime in Indonesia," *Journal of Legal Studies* 29, no. 1 (2022): 31. See too, Benoit Dupont, "Enhancing the effectiveness of cybercrime prevention through policy monitoring," *Journal of crime and justice* 42, no. 5 (2019): 505.

Al-Zahrani¹⁵ demonstrated that students' knowledge, beliefs, and digital citizenship skills significantly influenced cybercrime prevention behavior. This aligns with Aprilianti,¹⁶ who argues that formal and informal legal education must evolve to address emerging online behaviors and digital ethics. In the UK, Wright et al.¹⁷ proposed a multi-stakeholder approach involving parents, educators, and law enforcement in prevention campaigns to build what they call "pathways out of cybercrime". These initiatives reinforce the view that increasing public awareness and understanding of cyber laws reduces the likelihood of individuals engaging in or falling victim to online offenses.

In developing contexts, such as Indonesia, similar educational frameworks could be adapted to improve public awareness of national laws like the Information and Electronic Transactions Act (*Undang Undang Informasi dan Transaksi Elektronik/UU ITE*). Programs that integrate community based legal literacy and digital ethics training can significantly reduce risk behaviors associated with cybercrime.¹⁸

2. Effectiveness of Law Enforcement in Addressing Cybercrime

Law enforcement effectiveness in cybercrime prevention depends on regulatory clarity, institutional capacity, and international coordination. The European Union Agency for Law Enforcement Cooperation (*Europol*) has made notable progress in strengthening its operational framework, but resource disparities among member states remain a problem.¹⁹ In Eastern Europe, Kopotun et al.²⁰ analyzed how centralized policing systems can both aid and

¹⁵ Hosam A. Althibyani, and Abdulrahman M. Al-Zahrani, "Investigating the effect of students' knowledge, beliefs, and digital citizenship skills on the prevention of cybercrime," *Sustainability* 15, no. 15 (2023): 11512. See too, Siti Sya'ada Alda Risma, and Fatimah Azzahro Fachuda, "The Role of Digital Literacy in Preventing Cybercrime Among Adolescents: A Social Study in Urban Areas," *Hakim: Jurnal Ilmu Hukum dan Sosial* 3, no. 3 (2025): 1310.

¹⁶ Astri Aprilianti, "Efektivitas dan Implementasi Undang-Undang Informasi dan Transaksi Elektronik sebagai Hukum Siber di Indonesia: Tantangan dan Solusi," *Begawan Abioso* 15, no. 1 (2024): 46.

¹⁷ David Wright, Krzysztof Garstka, and Richa Kumar, "Rising to the Proliferation of Cybercrime Challenging Law Enforcement Agencies across Europe," *Eur. L. Enft Rsch. Bull.* 21 (2021): 81. See too, Hardianto Djanggih, "The phenomenon of cybercrimes which impact children as victims in Indonesia," *Yuridika* 33, no. 2 (2018): 218.

¹⁸ Madinah Mokobombang, Zulfikri Darwis, and Sabil Mokodenseho, "Pemberantasan Tindak Pidana Cyber di Provinsi Jawa Barat: Peran Hukum dan Tantangan dalam Penegakan Hukum Terhadap Kejahatan Digital," *Jurnal Hukum dan HAM Wara Sains* 2, no. 6 (2023): 519.

¹⁹ Allison Peters, and Amy Jordan, "Countering the cyber enforcement gap: Strengthening global capacity on cybercrime," *J. Nat'l Sec. L. & Pol'y* 10 (2019): 487. See too, Zulfan Akbar Syahfallah, Askari Razak, and Salle Salle, "The Effectiveness of Law Enforcement on Cybercrime: A Case Study of Online Fraud in South Sulawesi," *SIGn Jurnal Hukum* 7, no. 2 (2025): 1116-1132.

²⁰ Igor Kopotun, Anatolii Nikitin, Nataliia Dombrovan, Valentyn Tulinov, and Dmytro Kyslenko, "Expanding the Potential of the Preventive and Law Enforcement Function of the Security Police in Combating Cybercrime in Ukraine and the EU," *TEM Journal* 9, no. 2 (2020): 347.

hinder cross-border cyber investigations. In contrast, countries like the Netherlands and Germany have invested heavily in specialized cyber units and digital forensics laboratories, increasing their ability to track and prosecute cyber offenders. Pansariadi²¹ observed that European police officers who receive continuous training in cyber preparedness are more capable of preventing crimes through proactive strategies.

However, both European and Asian scholars agree that enforcement alone is insufficient. Enforcement must be complemented by strong public collaboration and cross-sectoral information sharing. Wainwright²² emphasized that continuous training and public-private partnerships are essential for the sustainability of cyber law enforcement across Europe.

The survey results revealed that over 50% of law enforcement respondents stated that lack of technical training and lack of inter-agency coordination were major barriers in effectively handling cybercrime cases. This finding aligns with research by Kurniawan²³ who showed that the limited technological capacity within Indonesian law enforcement agencies remains a significant barrier to effectively enforcing cybercrime laws. In Europe, although regulatory frameworks are more stringent and infrastructure is more advanced, the enforcement of cybercrime legislation remains constrained by inadequate training for police officers handling cybercrime investigations.²⁴

Respondents with higher levels of legal literacy (80% and above) were more knowledgeable about how to protect their personal data, avoid online fraud, and report cybercrime incidents. Research by Aprilianti²⁵ showed that legal education and awareness programs play a vital role in raising public awareness of cybercrime risks. This study shows that improving legal literacy directly correlates with the prevention of cybercrime, a finding consistent with

²¹ Rafi Septia Budianto Pansariadi, and Noenik Soekorini, "Tindak Pidana Cyber Crime dan Penegakan Hukumnya," *Binamulia Hukum* 12, no. 2 (2023): 289. See too, Radoslav V. Baltezarević, "Digital literacy as a means of preventing cybercrime," *Baština* 57 (2022): 134.

²² Rob Wainwright, "Trends and challenges for law enforcement training and education," *Special Issue 3 Eur. Police Sci. & Res. Bull.* (2016): 11. See too, Nurul Aini, and Fauziah Lubis, "Tantangan Pembuktian Dalam Kasus Kejahatan Siber," *Judge: Jurnal Hukum* 5, no. 02 (2024): 59.

²³ Kurniawan Robert, "International Cooperation in Tackling Cybercrime," *International Cybercrime Journal* 10, no. 1 (2023): 112. See too, Zainuddin Kasim, "Kebijakan hukum pidana untuk penanggulangan cyber crime di Indonesia," *Indragiri Law Review* 2, no. 1 (2024): 19.

²⁴ Igor Kopotun, Anatolii Nikitin, Nataliia Dombrovan, Valentyn Tulinov, and Dmytro Kyslenko, "Expanding the Potential of the Preventive and Law Enforcement Function of the Security Police in Combating Cybercrime in Ukraine and the EU," *TEM Journal* 9, no. 2 (2020): 348.

²⁵ Astri Aprilianti, "Efektivitas dan Implementasi Undang-Undang Informasi dan Transaksi Elektronik sebagai Hukum Siber di Indonesia: Tantangan dan Solusi," *Begawan Abioso* 15, no. 1 (2024): 46.

Shukurov and Jafarov²⁶ in Europe, who found that more legally aware individuals tend to avoid risks related to cybercrime.

The regression analysis results indicate that legal literacy has a significant effect on cybercrime prevention, with a coefficient $\beta = 0.46$ ($p < 0.05$), indicating that increased legal awareness leads to a higher likelihood of preventing cybercrime. Law enforcement effectiveness also showed a positive impact on cybercrime prevention, with a coefficient $\beta = 0.32$ ($p < 0.05$). This suggests that although legal literacy has a larger effect, effective law enforcement still plays a significant role in preventing cybercrime.²⁷

The following table illustrates the relationship between legal literacy, law enforcement effectiveness, and cybercrime prevention in terms of percentages for each category.

Table 1. Comparison of Legal Literacy and Law Enforcement Effectiveness Levels in Cybercrime Prevention

Variable	Legal Literacy (%)	Law Enforcement Effectiveness (%)	Cybercrime Prevention (%)
Low Legal Literacy	68	50	45
Medium Legal Literacy	22	60	60
High Legal Literacy	10	70	80
Low Law Enforcement Effectiveness	50	45	50
Medium Law Enforcement Effectiveness	30	55	65
High Law Enforcement Effectiveness	20	75	85

Table 1 shows a clear relationship between legal literacy, law enforcement effectiveness, and cybercrime prevention. Respondents with low legal literacy, which constitute 68% of the sample, demonstrate relatively low levels of cybercrime prevention at 45%, despite a moderate perception of law enforcement effectiveness at 50%. In contrast, respondents with medium legal literacy (22%) exhibit improved outcomes, with cybercrime prevention increasing to 60% alongside higher perceived law enforcement effectiveness

²⁶ Elvin Shukurov, and Uzeyir Uzeyir Jafarov, "Legal Professionals' Perspectives on the Challenges of Cybercrime Legislation Enforcement," *Interdisciplinary Studies in Society, Law, and Politics* 2, no. 4 (2023): 29.

²⁷ Mega Lestari, and Risa Suryana, "Challenges in Law Enforcement in Cybercrime Cases in Indonesia," *Journal of Criminology* 34, no. 2 (2022): 89.

at 60%. The highest level of cybercrime prevention is observed among respondents with high legal literacy, representing 10% of the sample, where cybercrime prevention reaches 80% and law enforcement effectiveness is perceived at 70%.

A similar pattern appears when viewed from the perspective of law enforcement effectiveness. Respondents who perceive law enforcement effectiveness as low (50%) report lower levels of cybercrime prevention at 50%. As perceptions of effectiveness increase to a medium level (30%), cybercrime prevention rises to 65%. The strongest preventive outcomes are found among respondents who perceive law enforcement effectiveness as high (20%), with cybercrime prevention reaching 85%. Overall, the data indicate that higher levels of legal literacy and stronger perceptions of law enforcement effectiveness are consistently associated with improved cybercrime prevention.

Table 2. Comparison of Legal Literacy and Cybercrime Prevention

Category	Legal Literacy (%)	Cybercrime Prevention (%)
Low Legal Literacy	68	50
Medium Legal Literacy	22	60
High Legal Literacy	10	80
Low Law Enforcement Effectiveness	50	45
Medium Law Enforcement Effectiveness	30	65
High Law Enforcement Effectiveness	20	85

Table 1 presents data comparing legal literacy levels, law enforcement effectiveness, and their relationship with the prevention of cybercrime. The table is divided into different categories based on the levels of legal literacy and law enforcement effectiveness. Each category provides the percentage of respondents who indicated their perception of legal literacy, law enforcement effectiveness, and cybercrime prevention.

A significant portion of the population, representing 68%, has low legal literacy, indicating a limited understanding of laws that protect digital rights and the legal consequences of cybercrime. Despite this low level of legal literacy, this group demonstrates a moderate level of cybercrime prevention (50%). However, their limited awareness of legal risks and protective mechanisms increases their vulnerability to cyber threats. Meanwhile, 22% of respondents fall into the category of medium legal literacy. Individuals in this group possess a better understanding of their rights and the legal framework governing cyberspace compared to those with low legal literacy, although their knowledge of online legal protections remains incomplete.

Respondents with medium legal literacy demonstrate a higher level of cybercrime prevention (60%) compared to those with low legal literacy. Their improved understanding of legal frameworks enables them to make more informed decisions in avoiding online risks and engaging in safer digital behavior. Meanwhile, only 10% of respondents reported having a high level of legal literacy, indicating that a relatively small but significant portion of the population is well informed about laws governing cyber activities and possesses a strong understanding of how to protect their rights in the digital environment.

Individuals with high legal literacy demonstrate a high level of cybercrime prevention (80%). Their comprehensive understanding of digital laws and awareness of their rights in the online environment enable them to engage in proactive protective behaviors, such as avoiding risky online activities and safeguarding personal data. A perception of low law enforcement effectiveness (50%) reflects public concerns regarding the capacity of authorities to handle cybercrime cases effectively. Respondents who view law enforcement as ineffective tend to believe that authorities respond slowly or lack adequate tools and technical training. As a consequence, cybercrime prevention within this group remains relatively low (45%), suggesting that limited confidence in law enforcement discourages individuals from reporting incidents or taking preventive actions, thereby increasing their vulnerability to cybercrime.

Respondents who perceive medium law enforcement effectiveness (30%) believe that authorities are reasonably capable of addressing cybercrime, although notable gaps remain, particularly in terms of resource availability and institutional coordination. Under this condition, cybercrime prevention reaches a moderate level (65%), indicating that while enforcement is not fully optimal, the presence of functioning law enforcement institutions provides a deterrent effect and encourages greater public vigilance. Meanwhile, only 20% of respondents perceive law enforcement effectiveness as high, reflecting strong confidence in the capacity of law enforcement agencies to combat cybercrime. This group believes that authorities are well equipped, adequately trained, and efficient in responding to cybercrime cases. Correspondingly, cybercrime prevention within this group reaches a high level (85%), demonstrating that strong law enforcement effectiveness enhances public trust, increases the likelihood of reporting cybercrime, and promotes adherence to preventive measures within the legal system.

The data indicates that improving both legal literacy and law enforcement effectiveness can significantly enhance cybercrime prevention efforts. Public awareness campaigns focused on legal education, combined with investments in law enforcement training and infrastructure, are critical for

creating a safer digital environment. This data supports the idea that a holistic approach which includes enhancing legal understanding and improving law enforcement capabilities is essential to reducing the risks associated with cybercrime.

3. The Relationship between Legal Literacy and Law Enforcement Effectiveness in Preventing Cybercrime

Legal literacy and law enforcement effectiveness are not isolated phenomena but mutually reinforcing. Research by Lestari²⁸ in Indonesia and by De Paoli et al.²⁹ in the UK found that when citizens are well-informed about cyber laws, they are more likely to report offenses promptly, enabling faster investigation and stronger deterrence. Kovács and Terták³⁰ further argue that citizens' financial and legal awareness enhances the effectiveness of cybercrime deterrence, suggesting that education directly contributes to more efficient law enforcement. Moreover, European Union policy frameworks now explicitly link civic awareness and legal literacy to cybersecurity resilience. The EU Cybersecurity Strategy stresses that effective law enforcement must be accompanied by preventive education, especially among young users, to reduce systemic vulnerabilities. Sari³¹ adds that a culture of legal awareness also promotes trust in law enforcement institutions an essential component in encouraging public participation in reporting and preventing cybercrime. This interdependence indicates that the effectiveness of cybercrime prevention policies relies on both robust legal structures and the cognitive empowerment of citizens.

Legal literacy and law enforcement effectiveness are interdependent determinants of cybercrime prevention. European scholars such as De Paoli et

²⁸ Mega Lestari, and Risa Suryana, "Challenges in Law Enforcement in Cybercrime Cases in Indonesia," *Journal of Criminology* 34, no. 2 (2022): 89. See too, Naeem AllahRakha, "Cybercrime and the legal and ethical challenges of emerging technologies," *International Journal of Law and Policy* 2, no. 5 (2024): 29.

²⁹ Stefano De Paoli, Jason Johnstone, Natalie Coull, Ian Ferguson, Georgina Sinclair, Patrick Tomkins, Maureen Brown, and Rebecca Martin, "A qualitative exploratory study of the knowledge, forensic, and legal challenges from the perspective of police cybercrime specialists," *Policing: A Journal of Policy and Practice* 15, no. 2 (2021): 1437.

³⁰ Levente Kovács, and Elemér Terták, "Financial Literacy is the Best Protection from Cybercrime," *Economy and Finance: English-Language Edition of Gazdaság és Pénzügy* 11, no. 1 (2024): 14.

³¹ Intan Sari, "Synergy between Legal Literacy and Law Enforcement in Preventing Cybercrime," *Journal of Social and Law* 21, no. 4 (2022): 114.

al.,³² Kovács and Terták,³³ and Shukurov and Jafarov³⁴ emphasize that awareness-based preventive mechanisms must complement enforcement strategies to build resilient digital societies. This study extends prior work by synthesizing findings from both developed and developing contexts to assess how literacy and enforcement interact in preventing cybercrime. The novelty of this study lies in proposing an integrative model where legal knowledge acts as a preventive tool, while law enforcement functions as a corrective mechanism, together forming a dual-layered protection framework against cyber offenses. This theoretical model finds its empirical validation in the study's results. The findings demonstrate a significant relationship between legal literacy, law enforcement effectiveness, and cybercrime prevention. This discussion will relate these findings to previous research from both Indonesia and Europe, and provide further insights into policy implications for improving cybercrime prevention.

The low level of legal literacy among the Indonesian population shows that many individuals lack an understanding of their rights in the digital world, as well as the risks they face if they engage in illegal activities online. Research by Rasyid and Putra³⁵ found that understanding the ITE Law and related cyber laws contributes significantly to an individual's ability to avoid engaging in illegal actions. Similarly, Shukurov and Jafarov³⁶ in Europe found that individuals with higher legal literacy are more likely to avoid cybercrimes and are more prepared to report cybercrimes they encounter. This suggests that intensive legal education is essential to raising awareness and preventing cybercrime. Improving legal literacy can be seen as a preventive effort that individuals themselves can undertake. With a deeper understanding of the law, people are not only able to avoid becoming involved in cybercrime but can also

³² Stefano De Paoli, Jason Johnstone, Natalie Coull, Ian Ferguson, Georgina Sinclair, Patrick Tomkins, Maureen Brown, and Rebecca Martin, "A qualitative exploratory study of the knowledge, forensic, and legal challenges from the perspective of police cybercrime specialists," *Policing: A Journal of Policy and Practice* 15, no. 2 (2021): 1439.

³³ Levente Kovács, and Elemér Terták, "Financial Literacy is the Best Protection from Cybercrime," *Economy and Finance: English-Language Edition of Gazdaság és Pénzügy* 11, no. 1 (2024): 17. See too, Ismaeel Alhadid, Aman Nweiran, and Ghofran Hilal, "The influence of Cybercrime and legal awareness on the behavior of university of Jordan students," *Heliyon* 10, no. 12 (2024): 23.

³⁴ Elvin Shukurov, and Uzeyir Uzeyir Jafarov, "Legal Professionals' Perspectives on the Challenges of Cybercrime Legislation Enforcement," *Interdisciplinary Studies in Society, Law, and Politics* 2, no. 4 (2023): 28. See too, Ridho Duha, "Punishment for Cybercrime: A Major Challenge in Modern Legal Systems," *Verdict: Journal of Law Science* 3, no. 2 (2024): 84.

³⁵ Abdur Rasyid, and Hadi Putra, "The Role of Legal Literacy in Preventing Cybercrime in Society," *Journal of Legal Studies*, 19, no.3 (2022): 57.

³⁶ Elvin Shukurov, and Uzeyir Uzeyir Jafarov, "Legal Professionals' Perspectives on the Challenges of Cybercrime Legislation Enforcement," *Interdisciplinary Studies in Society, Law, and Politics* 2, no. 4 (2023): 31.

actively participate in detecting and reporting cyber threats.³⁷ This is also emphasized by Pansariadi,³⁸ who argues that structured legal education and awareness programs significantly contribute to enhancing public knowledge and protective behavior against cybercrime.

Law enforcement effectiveness plays a crucial role in preventing cybercrime. This study found that ineffective law enforcement in Indonesia, particularly due to limited resources and officer training, remains a significant barrier to reducing cybercrime. These findings align with research by Kurniawan,³⁹ which shows that although Indonesia has the ITE Law in place, its implementation is still limited due to institutional capacity issues. In Europe, although better infrastructure and technology are available, the enforcement of cybercrime laws is still challenged by insufficient training for officers and a lack of coordination between agencies, as highlighted by Kopotun et al.⁴⁰ and Peters and Jordan.⁴¹ In Indonesia, increasing the capacity of law enforcement officers through training and technological improvements is critical for strengthening law enforcement effectiveness. Effective law enforcement is not only dependent on the quality of regulations but also on the speed and responsiveness of officers in handling cybercrime reports. Lestari and Suryana⁴² highlighted the necessity of rapid responses in cybercrime cases to mitigate further harm. This study further demonstrates that cooperation among law enforcement, the private sector, and civil society can expedite the resolution of cybercrime incidents.

Based on the findings of this study, there are several policy implications for improving cybercrime prevention in Indonesia. First, improving legal literacy should be a priority in both formal and informal education systems. The government and educational institutions should introduce legal education early, covering not only basic legal knowledge but also digital rights and cybercrime risks.⁴³ Community based legal awareness programs can also help

³⁷ Moh Khoizi Eriyanto, and Sihombing Rizky Agassy, "The Role of Legal Literacy in Preventing Cybercrime in Indonesia," *Journal of Legal Studies* 29, no. 1 (2022): 32.

³⁸ Rafi Septia Budianto Pansariadi, and Noenik Soekorini, "Tindak Pidana Cyber Crime dan Penegakan Hukumnya," *Binamulia Hukum* 12, no. 2 (2023): 290.

³⁹ Kurniawan Robert, "International Cooperation in Tackling Cybercrime," *International Cybercrime Journal* 10, no. 1 (2023): 114.

⁴⁰ Igor Kopotun, Anatolii Nikitin, Nataliia Dombrovan, Valentyn Tulinov, and Dmytro Kyslenko, "Expanding the Potential of the Preventive and Law Enforcement Function of the Security Police in Combating Cybercrime in Ukraine and the EU," *TEM Journal* 9, no. 2 (2020): 349.

⁴¹ Allison Peters, and Amy Jordan, "Countering the cyber enforcement gap: Strengthening global capacity on cybercrime," *J. Nat'l Sec. L. & Pol'y* 10 (2019): 488.

⁴² Mega Lestari, and Risa Suryana, "Barriers in Law Enforcement of Cybercrime Cases in Indonesia," *Journal of Criminology* 34, no. 2 (2022): 90.

⁴³ Elvin Shukurov, and Uzeyir Uzeyir Jafarov, "Legal Professionals' Perspectives on the Challenges of Cybercrime Legislation Enforcement," *Interdisciplinary Studies in Society, Law, and Politics* 2, no. 4 (2023): 33. See too, Faisal Awais, "Enhancing Legal Frameworks to Address Cybercrime

increase public understanding of cyber threats. Second, improving law enforcement capacity is crucial to enhancing the effectiveness of cybercrime enforcement. Effective enforcement requires sufficient resources, adequate training, and better coordination between agencies. As suggested by Kurniawan⁴⁴ and Peters and Jordan,⁴⁵ Indonesia should enhance international cooperation in law enforcement to tackle cybercrime.

This study concludes that both legal literacy and law enforcement effectiveness significantly impact cybercrime prevention. Increasing legal literacy among Indonesian citizens can serve as an effective preventive measure against cybercrime, while effective law enforcement will strengthen oversight and address cybercrime. Therefore, sustained efforts are required to improve legal literacy and strengthen law enforcement to create a safer digital ecosystem.

D. Conclusion

This study investigates the significant roles of legal literacy and law enforcement effectiveness in preventing cybercrime. The findings provide compelling evidence that both factors play critical roles in mitigating the risks and consequences of cybercrime in Indonesia. Legal literacy helps individuals understand their rights and obligations in the digital space, which enhances their ability to protect themselves from cybercrimes. The data shows that people with higher legal literacy are better equipped to recognize the risks of cybercrime, avoid engaging in illegal activities online, and report cybercrimes when encountered. This highlights the importance of educating the public about digital rights and cybercrime laws, particularly through structured programs in schools and communities. The study demonstrates a positive correlation between legal literacy and cybercrime prevention, suggesting that efforts to raise awareness and improve legal knowledge among citizens can be an effective strategy for reducing cybercrime rates.

While legal literacy plays a fundamental role, the study also emphasizes the critical importance of law enforcement effectiveness in preventing cybercrime. Effective law enforcement, characterized by swift responses to reports, adequate training for officers, and robust inter-agency coordination, directly impacts the success of cybercrime prevention. However, the study identified significant challenges such as limited technical training and insufficient resources within law enforcement agencies, which hinder their

in the Digital Age: A Critical Perspective," *UCP Journal of Law & Legal Education* 3, no. 2 (2025): 62.

⁴⁴ Kurniawan Robert, "International Cooperation in Tackling Cybercrime," *International Cybercrime Journal* 10, no. 1 (2023): 116.

⁴⁵ Allison Peters, and Amy Jordan, "Countering the cyber enforcement gap: Strengthening global capacity on cybercrime," *J. Nat'l Sec. L. & Pol'y* 10 (2019): 489.

ability to address cybercrime comprehensively. Therefore, strengthening the capabilities of law enforcement agencies and improving coordination, both domestically and internationally, is vital to addressing the growing issue of cybercrime. Both legal literacy and law enforcement effectiveness are interdependent in preventing cybercrime. This study emphasizes that legal literacy alone is not enough to ensure full protection against cybercrime. A comprehensive approach that combines public legal education with an effective legal framework and enforcement mechanisms is essential. Policymakers should focus on developing integrated strategies that not only improve legal literacy but also enhance the efficiency and responsiveness of law enforcement agencies. Moreover, international cooperation in law enforcement and information sharing is crucial in combating cross-border cybercrime, as shown by findings from both Indonesia and Europe.

Based on the findings, the study recommends several policy actions. First, enhancing legal literacy should be a priority for governments and educational institutions, particularly in digital rights and cybercrime laws. Legal awareness campaigns, both online and offline, should be developed to reach broader segments of society, with a focus on vulnerable groups who may lack access to formal education. Second, there is an urgent need to strengthen law enforcement by investing in technical training, increasing the recruitment of cybercrime specialists, and enhancing inter-agency cooperation. Policies should aim to provide law enforcement agencies with the resources they need to effectively combat cybercrime. Finally, future research should explore the specific impact of international law enforcement cooperation and cybersecurity infrastructure on cybercrime prevention and examine how different regions adapt to cyber threats and implement effective cybercrime legislation.

Improving legal literacy and law enforcement effectiveness are both critical to reducing the prevalence of cybercrime. A coordinated effort between the government, law enforcement agencies, and the public is required to create a safer digital environment. This study contributes to the growing body of research that emphasizes the need for an integrated approach to cybercrime prevention and provides actionable recommendations for policymakers and law enforcement agencies to reduce the risks associated with cybercrime.

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