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Collaborative Governance Model in Digital Innovation-Based Health Malpractice Law Enforcement

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Abstract

Objective: This study aims to formulate a Collaborative Governance model for medical malpractice law enforcement leveraging digital innovation to enhance inter-agency coordination, legal certainty, and legal protection for both patients and healthcare professionals. **Theoretical framework:** The study is grounded in the concepts of Collaborative Governance and digital transformation in public administration, serving as a foundation for establishing effective, transparent, and accountable cross-sector coordination. **Literature review:** Previous studies have generally focused on litigation mechanisms, legal protections for healthcare professionals, and the role of Professional Disciplinary Councils; however, they have yet to integrate collaborative governance with digital innovation into a unified law enforcement model. **Method:** The study employs a normative-juridical approach with qualitative methods, utilizing a literature review of legislation, scholarly works, and secondary data analyzed through an interactive process. **Results:** Findings indicate that the low resolution rate of medical malpractice cases stems from weak inter-agency coordination, divergent perspectives regarding the evidentiary process, and a lack of integrated information systems. The study produces a model comprising five stages: digital reporting, collaborative verification, joint investigation, dispute resolution, and data-driven evaluation. **Implications:** This model has the potential to improve coordination effectiveness, transparency, accountability, and legal certainty in the handling of medical malpractice cases. **Novelty:** The research offers a conceptual model that integrates Collaborative Governance, the authority of Professional Disciplinary Councils, and digital innovation into a law enforcement system that is more responsive, integrated, and adaptive.

Keywords: collaborative governance, medical malpractice, law enforcement, digital innovation, professional disciplinary board.

INTRODUCTION

The increase in cases of alleged health malpractice in Indonesia is a challenge in realizing a law enforcement system that can provide legal certainty, justice, and balanced protection for patients and health workers. The increasing complexity of health services also increases the potential for medical disputes by involving various parties, such as health workers, patients, hospitals, professional organizations, and law enforcement officials [1]. However, the case resolution mechanism still faces various obstacles, including overlapping authority, slow administrative processes, limited access to information, and weak coordination between agencies. This condition causes the law enforcement process not to run effectively and has an impact on declining public trust in the health service system. Therefore, it is not enough to

resolve malpractice cases through a sectoral approach, but requires governance that can integrate various stakeholders more effectively [2].

The development of information technology provides an opportunity to build a more transparent, fast, and accountable law enforcement system through digital innovation. Digitalization in the reporting process, administrative examinations, mediation, and supervision of case settlement can strengthen cross-sector coordination while increasing the efficiency of handling medical disputes [3]. However, the use of digital technology will be more optimal if it is supported by the implementation of Collaborative Governance, which is a governance model that emphasizes collaboration between the government, Professional Disciplinary Councils, hospitals, professional organizations, law enforcement officials, and the community in the decision-making process. Through this collaboration, the health malpractice law enforcement system is expected to be able to create a more effective, transparent, and accountable case settlement process, while strengthening legal protection for all parties involved [4].

Theoretically, this study uses the concept of Collaborative Governance proposed by Ansell and Gash (2008), which is a governance model that emphasizes the involvement of various stakeholders in the collective decision-making process to solve complex public problems. In the context of law enforcement of health malpractice, this approach is relevant because dispute resolution involves not only law enforcement officials, but also the government, hospitals, professional organizations, the Professional Disciplinary Council (MDP), and the public as recipients of health services [5]. Collaboration between these institutions needs to be supported by digital innovations that allow data exchange, reporting, administrative examinations, mediation, and case supervision to be carried out more quickly, transparently, and accountably. The integration of collaborative governance with digital technology is expected to increase the effectiveness of coordination while minimizing bureaucratic obstacles that have been one of the causes of slow resolution of medical disputes [6].

The urgency of implementing the model has been strengthened after the enactment of Law Number 17 of 2023 concerning Health, which brings fundamental changes in the health malpractice law enforcement system through the establishment of the Professional Discipline Council (MDP) as stipulated in Articles 304 to 309. Based on Article 308 paragraph (5) and paragraph (6), the MDP is given the authority to provide recommendations on whether or not criminal investigations or civil charges can be carried out against health workers based on assessments of professional standards, service standards, and operational procedure standards (Law Number 17 of 2023) [7]. The expansion of the authority shows a shift in the function of the MDP from an ethical institution to an institution that also carries out a quasi-investigative function in the early stages of handling allegations of health malpractice [8]. However, these changes also pose challenges in the form of potential overlapping authority, differences in perspectives between the health profession and law enforcement officials, and the need for a more integrated coordination mechanism so that MDP recommendations can be effectively implemented in the law enforcement process [9].

Although various studies have examined the resolution of health malpractice disputes, most of them still focus on aspects of legal protection of health workers, litigation mechanisms, and the position of the Professional Disciplinary Council (MDP) from a normative perspective. Fitira et al. (2025) highlight the importance of MDP recommendations as part of medical dispute resolution, while Alfina and Mangesti (2025) emphasize the role of MDP based on Law Number 17 of 2023 concerning Health. At the international level, Hyman and Silver (2006) criticize litigation mechanisms because they require high costs and tend to prolong conflicts between medical personnel and patients [10]. Meanwhile, Sherman and Nomani (2025) show that mediation as an alternative to dispute resolution can increase the trust of the parties [11], while Luo et al. (2023) prove that the initial assessment by experts can speed up the resolution of cases while reducing litigation risk [12]. Other research also reveals that transparency, open communication, and

mechanisms *Incident Disclosure* more effective in building trust than a mere litigation approach [13]. However, these studies have not integrated the dimensions of collaborative governance with the use of digital innovations in the health malpractice law enforcement system in Indonesia, especially after the enactment of Law Number 17 of 2023 [14].

Based on these conditions, there is a research gap in the form of the unavailability of a model that integrates Collaborative Governance, the authority of the Professional Discipline Council, and the use of digital innovation in a framework for law enforcement of health malpractice. In fact, the complexity of the relationship between the government, hospitals, professional organizations, MDPs, law enforcement officials, and the community requires a coordinative mechanism that is structured, transparent, and supported by an integrated digital system. On that basis, the novelty of this research lies in the formulation of a Collaborative Governance Model in Law Enforcement of Health Malpractices Based on Digital Innovation, which connects institutional, regulatory, and technological aspects in one collaborative governance model. This study aims to analyze the form of collaboration between stakeholders in the enforcement of health malpractice laws and formulate a governance model based on digital innovation that is able to increase the effectiveness of coordination, accelerate the case resolution process, strengthen legal certainty, and provide balanced legal protection for patients and health workers.

LITERATURE REVIEW

Collaborative Governance in Law Enforcement of Health Malpractices

Increasingly complex public problems demand a paradigm shift in governance from a sectoral bureaucratic approach to collaborative governance. One of the approaches that is widely used in solving cross-sectoral problems is Collaborative Governance, which is a governance model that involves the government and non-government actors in the decision-making process together. Ansell and Gash (2008) define collaborative governance as a formal process that brings together public institutions and non-government stakeholders to achieve consensus in the formulation and implementation of public policies [15]. Furthermore, Emerson et al. (2012) explained that the success of collaboration is influenced by three main dimensions, namely *Principled Commitment*, *shared motivation*, and *capacity for joint action* [16], which is the foundation for sustainably building cooperation between institutions. The concept or Model of Collaborative Governance, according to Ansell and Gash (2008), can be shown through the following images:

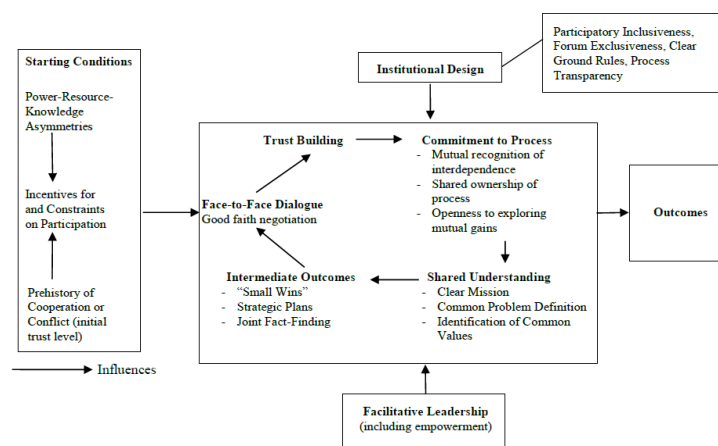


Figure 3 Collaborative Governance Model Ansell and Gash, 2008
Source: Collaborative Governance in Theory and Practice, Ansell and Gash, 2008

Figure 1. Concept or Model of Collaborative Governance according to Ansell and Gash (2008)

This concept is relevant in law enforcement of health malpractice because the settlement of cases does not only involve law enforcement officials, but also the government, hospitals, professional organizations, the Professional Discipline Council (MDP), as well as the community. Enactment of Law Number 17 of 2023 concerning Health strengthens the role of the MDP through the authority to provide recommendations regarding the possibility of criminal investigations and civil lawsuits against health workers based on assessments of professional standards, service standards, and operational procedure standards (Law Number 17 of 2023). However, the expansion of authority also poses challenges in the form of potential overlapping authorities and the need for more effective coordination between agencies so that the law enforcement process runs consistently [17]. Therefore, collaborative governance is a relevant approach to build synergy between stakeholders in realizing effective, transparent, and accountable law enforcement.

Digital Innovation as a Reinforcement of Collaborative Governance in Law Enforcement

Digital transformation has transformed governance through the use of information technology to improve the quality of public services, transparency, and effectiveness of decision-making. Digital innovation is not only related to the use of technology, but also reflects changes in work mechanisms that are more adaptive to the development of people's needs. OECD (2019) explained that digitalization is an important factor in realizing open government that encourages information disclosure, collaboration, and public participation. In practice, digital innovation is realized through the implementation of Electronic-Based Government System (SPBE), *e-government*, *big data analytics*, *artificial intelligence*, *cloud computing*, and *dashboard monitoring* that supports the integration of public services [18].

From a collaborative governance perspective, digital technology functions as a medium that strengthens communication, coordination, and information exchange between stakeholders positively. *real time*. Data integration allows reporting, verification, investigation, and decision-making processes to be done in a faster, more transparent, and evidence-based manner (*evidence-based policy*). Nasution et al. (2024) emphasized that digital innovation is a major factor in building collaborative governance [19], while Ahad and Barsei (2023) show that the implementation of SPBE can improve cross-sector coordination in local governments [20]. In addition, Mahardhika (2023) explained that digital-based complaint management can strengthen transparency and efficiency in resolving alleged health malpractices [21]. Thus, digital innovation is not only an administrative instrument, but also the main driver for the formation of collaborative governance in health law enforcement.

Digital Innovation-Based Collaborative Governance Model in Law Enforcement of Health Malpractices

Studies on the resolution of health malpractice disputes show that the litigation approach has not been fully able to provide effective resolution. Hyman and Silver (2006) suggest that litigation mechanisms are often costly, long-lasting, and create confrontational relationships between medical personnel and patients. Alternatively, Sherman and Nomani (2025) explain that mediation is able to reduce the escalation of conflict while increasing the trust of the parties. Luo et al. (2023) also show that an initial assessment by professional experts can speed up the resolution of cases and lower the risk of litigation. In addition, research by Wei (2007) and Mulcahy and Teeder (2022) confirms that transparency, open communication, and mechanisms for *incident disclosure* play an important role in preventing the development of medical disputes [22].

Based on these findings, this study develops a Digital Innovation-Based Collaborative Governance Model as a synthesis between collaborative governance theory and digital transformation in health malpractice law enforcement. This model integrates governments,

hospitals, Professional Disciplinary Councils, professional organizations, law enforcement officials, and the public through a digital platform that supports digital reporting, collaborative verification, joint investigation, dispute resolution, and data-driven evaluation. The integration is expected to strengthen cross-sector coordination, speed up the evidentiary process, increase transparency, and provide more balanced legal protection for patients and health workers [23]. Thus, the developed model not only strengthens the implementation of collaborative governance, but also provides a new conceptual framework for the development of health law enforcement systems that are adaptive to the development of digital technologies.

METHODOLOGY

This study uses a type of qualitative research with a Normative Juridical Approach (*Normative Legal Research*) combined with Library Research to analyze the concept of Collaborative Governance in the enforcement of health malpractice laws based on digital innovation. This approach was chosen because the research focuses on the analysis of legal norms, governance concepts, and the development of conceptual models based on relevant regulations and scientific literature, without collecting field data. The focus of the research is directed at synergy between stakeholders in the enforcement of health malpractice laws, the implementation of digital innovations, and the formulation of collaborative governance models that are adaptive to technological developments. The research data sources consist of Primary Data, namely legal documents in the form of Law Number 17 of 2023 concerning Health, laws and regulations related to health malpractices, as well as relevant government policies [24], while Secondary data obtained from articles in reputable national and international journals, scientific books, results of previous research, and statistical data published by the Ministry of Health of the Republic of Indonesia and the Criminal Investigation Agency (Bareskrim) of the National Police [25]. Data analysis is carried out using Miles, Huberman, and Saldaña's Interactive Analysis Model (2014), which includes Data condensation through the selection process and simplification of relevant information, Data Display in the form of conceptual matrices, relationship charts, and narrative descriptions, and Conclusion drawing/verifying by comparing various regulations, literature, and supporting documents through triangulation of sources [26]. The selection of this method aims to produce a comprehensive analysis of integration Collaborative Governance and digital innovation in the health malpractice law enforcement system, to be able to identify existing governance weaknesses while formulating a more effective, transparent, accountable, and adaptive conceptual model. Theoretically, this research is expected to enrich the development of collaborative governance studies from the perspective of health law, while practically providing recommendations for the government, Professional Discipline Councils, professional organizations, hospitals, and law enforcement officials in building an integrated health malpractice law enforcement system through the use of digital technology.

RESULTS AND DISCUSSION

The Effectiveness of Health Malpractice Law Enforcement in Indonesia: An Analysis of Problems and Challenges of Inter-Agency Coordination

Law enforcement against alleged health malpractices is one of the important instruments in ensuring legal protection for patients while providing legal certainty to health workers. As the complexity of health services increases, the settlement of malpractice cases no longer only depends on proving criminal elements, but also requires an assessment of professional standards, service standards, and operational procedure standards as stipulated in Law Number 17 of 2023 concerning Health. Therefore, the law enforcement process involves various actors, including police investigators, the Professional Disciplinary Council (MDP), professional organizations, hospitals, and government agencies that have authority in the

health sector. The involvement of many institutions shows that the resolution of health malpractice cases is a multidimensional problem that requires effective coordination between institutions in order to create fair legal certainty [27].

Based on data from the Operational Bureau of the Criminal Investigation Agency (Bareskrim) of the National Police, the number of cases of alleged health malpractices handled by investigators during the period 2023 to mid-2026 reached 108 cases. However, of these, only 28 cases (25.9%) have been declared completed, while 80 cases (74.1%) are still in the stage of investigation or other legal proceedings. The relatively low percentage of case resolution shows that the law enforcement process against alleged health malpractices still faces various structural and administrative obstacles [28]. This condition not only has an impact on the slow pace of legal certainty for the parties, but also has the potential to reduce the level of public trust in the health service system and law enforcement agencies. Thus, the effectiveness of law enforcement has not fully reflected the principles of legal certainty, justice, and utility, which are the main goals of the legal system.

Table 1. Recapitulation of the Handling of Cases of Alleged Health Malpractices by Police Investigators (2023–Mid-2026)

Description	Quantity	Percentage
Incoming Matter	108	100%
Finished Matter	28	25,9%
Pending Cases (Arrears)	80	74,1%

Source: E-MP of the Criminal Investigation Branch of the National Police, all ranks of the Police (2026)

Further analysis of the distribution of cases shows that there is an inequality in the level of settlement between regions. Polda Metro Jaya recorded the highest number of cases, namely 31 cases, but only 3 cases were successfully resolved, or around 9.7%. On the other hand, several regions such as the Criminal Investigation Branch of the National Police, the Special Regional Police of Yogyakarta, the West Nusa Tenggara Police, the Central Kalimantan Police, and the Papua Police have managed to resolve all cases handled (100%), although the number of cases is relatively small [29]. These differences indicate that the success of case resolution is not only influenced by the number of cases, but also by institutional capacity, coordination effectiveness, availability of human resources, and inter-institutional communication mechanisms. In other words, the more complex the case is and the more actors involved, the greater the need for a structured coordination system so that the law enforcement process can take place efficiently.

The findings show that one of the main problems in handling alleged health malpractices does not lie in the limitations of regulations, but in the implementation and coordination mechanisms between agencies. Police investigators require a professional assessment from the Professional Discipline Council (MDP) to ascertain whether the actions of health workers have violated professional standards or met the elements of criminal acts as stipulated in Article 308 paragraph (5) and paragraph (6) of Law Number 17 of 2023 concerning Health. On the other hand, MDP conducts examinations based on scientific perspectives, professional ethics, service standards, and operational procedure standards. These differences in perspectives often prolong the decision-making process because they are not supported by an integrated coordination mechanism. This condition is in line with the view of Ansell and Gash (2008), which states that the effectiveness of collaborative governance is largely determined by communication, trust between stakeholders, and an understanding of common goals [30].

Overall, the low level of case resolution shows that the health malpractice law enforcement system still needs governance reform that can integrate all stakeholders in a

more effective coordination mechanism. Data from the Criminal Investigation Branch of the National Police shows that almost three-quarters of cases still do not obtain legal certainty, so a law enforcement model is needed that not only prioritizes repressive aspects, but also strengthens cross-sector coordination through a more transparent, accountable, and digital technology-based mechanism. This approach is an important foundation for the development of Model Collaborative Governance as a solution to increase the effectiveness of case resolution, accelerate information exchange, and reduce sectoral ego, which has been one of the main obstacles in the enforcement of health malpractice laws [31].

Table 2. Analysis of the Effectiveness of Health Malpractice Law Enforcement

Indicator	Research Findings	Analysis
Number of items	108 items	It shows the high complexity of handling alleged health malpractices.
Settlement of the matter	28 cases (25.9%)	The effectiveness of case settlement is still low, so legal certainty is not optimal.
Arrears of cases	80 cases (74.1%)	Indicates that there are obstacles to coordination, administration, and proof.
Regions with the most things	Polda Metro Jaya (31 cases)	The high burden of cases requires a more integrated coordination mechanism and information system.
Implications	The need for a Collaborative Governance model	Collaboration between institutions based on digital innovation is needed to accelerate case resolution and increase accountability.

Data on the handling of health malpractice cases shows that the effectiveness of law enforcement in Indonesia still faces significant challenges. Of the 108 cases handled during the period 2023 to mid-2026, only 28 cases (25.9%) have been resolved, while 80 cases (74.1%) are still in arrears. This condition reflects that the main problem lies not only in the regulatory aspect, but also in the weak coordination between institutions, the difference in perspective between investigators and the Professional Disciplinary Council, and the lack of integrated information exchange mechanisms [32]. Therefore, a Collaborative Governance approach supported by digital innovation is needed to strengthen synergy between actors, accelerate the case handling process, increase transparency, and realize more effective legal certainty for patients and health workers.

Collaborative Governance Model in Strengthening Law Enforcement of Health Malpractices

The handling of allegations of health malpractice is a multidimensional problem that cannot be solved only through a separate approach to criminal law or professional discipline. Enactment of Law Number 17 of 2023 concerning Health has brought about significant changes through the formation of the Professional Discipline Council (MDP), who have the authority to provide recommendations on whether or not criminal investigations or civil lawsuits can be carried out against health workers based on the results of examinations of professional standards, service standards, and operational procedure standards [33]. This condition shows that the law enforcement process no longer only depends on police investigators, but also requires the involvement of various actors who have different authorities and competencies. Therefore, the resolution of health malpractice cases requires a governance model that can integrate all stakeholders in the decision-making process collaboratively in order to create fair legal certainty for patients and health workers [34].

The Collaborative Governance approach put forward by Ansell and Gash (2008) provides a relevant framework to explain how inter-agency coordination can be built effectively. This

model places the government as a facilitator that brings together all stakeholders in a consensus-oriented collaborative forum. In the enforcement of the law on health malpractice, the actors involved include the Ministry of Health, the National Police of the Republic of Indonesia, the Prosecutor's Office, the Professional Disciplinary Council, professional organizations of health workers, hospitals, academics, and the public as users of health services. Each actor has different but complementary functions, so that the success of case resolution is not determined by the dominance of one institution, but by the effectiveness of coordination, communication, and trust between stakeholders. Thus, collaborative governance can reduce sectoral egos, which have been one of the causes of slow case resolution [35].

Further, Emerson, Nabatchi, and Balogh (2012) explained that the success of collaborative governance is built through three main components, namely Principled Commitment, shared motivation, and capacity for joint action. These three components have strong relevance in law enforcement of health malpractice. *Principled commitment* is realized through an open communication process between investigators, MDPs, professional organizations, and health service facilities in determining the qualifications of a case. *Shared motivation* is reflected in a shared commitment to realize balanced legal protection for patients and health workers without prioritizing sectoral interests [36]. Meanwhile, *capacity for joint action* is realized through the preparation of coordination procedures, information exchange, and clear division of authority so that each institution can carry out its functions optimally. If these three elements run synergistically, the case settlement process will be faster, objective, and accountable.

Nevertheless, the implementation of collaborative governance in the enforcement of health malpractice laws still faces various challenges. The difference in perspective between investigators who are oriented towards proving elements of criminal acts and the Professional Disciplinary Council that assesses based on professional standards often causes differences in interpretation of a medical act. In addition, the absence of an integrated coordination mechanism causes the exchange of information to still take place administratively and takes a relatively long time [37]. This condition has an impact on delaying the investigation process and extending the time for case settlement. Therefore, collaborative governance is not enough to be understood as a concept of coordination between institutions, but must be realized through a work system that has standard procedures, continuous communication mechanisms, and information technology support that can connect all stakeholders effectively.

Based on the results of the analysis, this study offers Model Collaborative Governance as a strategic approach in strengthening the enforcement of health malpractice laws in Indonesia. The model places the government as the main coordinator that integrates the roles of the Police, Professional Disciplinary Councils, professional organizations, hospitals, academics, and the community in one collaborative governance mechanism. Through clear division of authority, open communication, and consensus-based decision-making, this model is expected to improve the effectiveness of inter-agency coordination, reduce overlap of authority, speed up the case resolution process, and strengthen legal certainty. Thus, collaborative governance is not only a theoretical concept, but also an institutional foundation in building a more responsive, transparent, and equitable health malpractice law enforcement system [38].

Table 3. Analysis of the Implementation of Collaborative Governance in Law Enforcement of Health Malpractices

Components of Collaborative Governance	Implementation in Malpractice Law Enforcement	Benefits
Principled Engagement	Coordination forum between the Police, MDP, Ministry of Health, professional organizations, and	Unifying perceptions in determining the qualification

	hospitals	of the case
Shared Motivation	Shared commitment to protect patients and healthcare workers	Increase interagency trust and reduce sectoral egos
Capacity for Joint Action	Preparation of joint SOPs, data exchange, and division of authority	Accelerating case resolution and improving coordination effectiveness
Collaborative Actions	Joint examination, professional consultation, and MDP recommendations	Produce decisions that are objective and based on professional standards
Collaborative Outcomes	Legal certainty, transparency, and law enforcement accountability	Improving the quality of legal services and protection for the parties

The implementation of Collaborative Governance is a relevant approach to overcome the complexity of health malpractice law enforcement involving many institutions with different authorities. Collaboration built through open communication, clear division of roles, and shared commitment can reduce sectoral egos and increase the effectiveness of coordination in resolving cases. However, the success of the model is highly dependent on the existence of an integrated working mechanism and supported by an information system that facilitates the rapid and secure exchange of data [39]. Therefore, collaborative governance needs to be combined with digital innovation so that the law enforcement process becomes more efficient, transparent, and accountable. This integration is the basis for the discussion in the next section about the Digital Innovation-Based Collaborative Governance Model.

Digital Innovation-Based Collaborative Governance Model in Health Malpractice Law Enforcement

Digital transformation has changed the paradigm of government administration, including in the health law enforcement system. The use of information technology is no longer limited to the digitization of administration, but has developed into a strategic instrument in building inter-institutional coordination, increasing transparency, and accelerating decision-making. In the context of handling allegations of health malpractice, digitalization is an urgent need because the case settlement process involves various institutions that have different authorities, ranging from hospitals, Professional Disciplinary Councils (MDP), professional organizations, the police, the prosecutor's office, and the government. So far, coordination that is still administrative has caused the exchange of information to be slow and has the potential to cause differences in interpretation in determining the qualifications of a case. Therefore, digital innovation is not only seen as a means of modernizing public services, but also as an instrument to strengthen collaborative governance in law enforcement of health malpractice laws [40].

Based on the results of the analysis, this study proposes a Digital Innovation-Based Collaborative Governance Model that integrates all stakeholders through one secure, transparent, and accountable digital ecosystem. This model was developed by adapting the theory of Collaborative Governance from Ansell and Gash (2008) and the collaborative framework of Emerson et al. (2012), then combined with the concept of digital transformation in governance. In contrast to conventional mechanisms that still rely on separate administrative communication, the proposed model places digital technology as the main medium to connect all actors in each stage of case handling [41]. Thus, each process can be monitored in real time, reduce duplication of examinations, speed up information exchange, and increase the accountability of each institution involved.

The conceptual model developed consists of five main stages, namely digital reporting, collaborative verification, joint investigation, dispute resolution, and data-driven evaluation.

The first stage begins with digital reporting, namely submitting public complaints through an integrated national platform so that each report is documented electronically from the beginning. The second stage is collaborative verification, which involves hospitals, health offices, professional organizations, and MDPs to conduct administrative and technical verification based on professional standards and service standards [42]. The third stage is in the form of a joint investigation, which is an integrated examination process carried out by investigators with MDP through the digital exchange of data and documents. Furthermore, the case is resolved through electronic mediation or litigation mechanisms in accordance with the provisions of laws and regulations. The last stage is in the form of data-based evaluation, which involves the use of all case settlement results as a national database to support supervision, institutional learning, and more preventive policy formulation.

The implementation of the model provides various benefits in strengthening the effectiveness of law enforcement on health malpractices. Information system integration allows each stakeholder to gain access to the same data, thereby reducing the potential for differences in perceptions in the proof process. Utilization of Electronic Medical Records, digital reporting systems, Big Data Analytics, and Dashboard Monitoring also improves the quality of documentation and supports evidence-based decision-making processes (*evidence-based decision-making*) [43]. In addition, information transparency strengthens the accountability of health service providers while increasing public trust in dispute resolution mechanisms. These findings are in line with OECD (2019), Sunday and Barsei (2023), Nasution et al. (2024), and Mahardhika (2023), who emphasized that digital transformation can strengthen cross-sector coordination, improve the quality of public services, and encourage the realization of more open and collaborative governance.

However, the successful implementation of the Digital Innovation-Based Collaborative Governance Model requires regulatory support, technological infrastructure, cybersecurity, patient personal data protection, and human resource capacity building. The government needs to build an information system that has interoperability between institutions so that data exchange can be carried out safely without ignoring the principle of confidentiality of medical records. In addition, strengthening digital competencies for health workers, law enforcement officials, and MDP members is an important factor so that digital transformation not only results in administrative efficiency, but also improves the quality of law enforcement [44]. Thus, the proposed model not only offers technological integration, but also presents a new paradigm in health malpractice law enforcement governance that is more responsive, transparent, accountable, and oriented towards fair legal protection.

Table 4. Digital Innovation-Based Collaborative Governance Model in Law Enforcement of Health Malpractices

Model Stages	Actors Involved	Utilization of Digital Innovation	Expected Externalities
Digital Reporting	Patients, Hospitals	National complaint portal, digital application	Documented complaints quickly and transparently
Collaborative Verification	Hospitals, Health Departments, MDPs, Professional Organizations	Integrated verification system	Objective administrative and technical validation
Joint Investigation	Police, MDP, Professional Organizations	Digital data sharing, electronic medical records, monitoring dashboards	Faster and more accurate checks
Dispute Resolution	Police, Prosecutor's Office, Courts,	Electronic mediation (<i>e-mediation</i>), a case	Effective and fair dispute resolution

	Mediators	administration system	
Data-Driven Evaluation	Government, Ministry of Health, Academics	<i>Big data analytics, open government data, evaluation dashboard</i>	Continuous improvement and policy and malpractice prevention

The analysis shows that the implementation of the Digital Innovation-Based Collaborative Governance Model can answer various coordination problems in the enforcement of health malpractice laws that have so far been sectoral. The integration of digital technology at every stage, from reporting to data-driven evaluation, enables more effective, transparent, and accountable cross-agency coordination. This model also strengthens the role of the Professional Disciplinary Council, law enforcement officials, hospitals, professional organizations, and the government in a single interconnected governance mechanism. Thus, the novelty of this research lies in the formulation of a conceptual model that integrates the principles of Collaborative Governance with digital innovation as a strategy to increase legal certainty, accelerate case resolution, and strengthen balanced legal protection for patients and health workers.

CONCLUSION

Based on the results of the study, it can be concluded that law enforcement against alleged health malpractices in Indonesia still faces various challenges, as shown by the low case resolution rate, namely only 28 out of 108 cases (25.9%) have been successfully resolved, while 80 cases (74.1%) are still in arrears in the period 2023 to mid-2026. This condition shows that the main problem lies not only in the substance of regulations, but also in the weak coordination between institutions, differences in perspectives between law enforcement officials and the Professional Disciplinary Council (MDP), and the lack of integration of information exchange mechanisms in the case handling process. To address these problems, this study offers a Digital Innovation-Based Collaborative Governance Model that integrates the government, law enforcement officials, MDPs, professional organizations, hospitals, academics, and the community through five main stages, namely digital reporting, collaborative verification, joint investigation, dispute resolution, and data-based evaluation. This model is a novelty of research that combines the principles of Collaborative Governance with digital transformation to strengthen cross-sector coordination, accelerate information exchange, increase transparency, accountability, and evidence-based decision-making. Thus, the implementation of the model is expected to be able to realize a more responsive, effective, transparent, and fair health malpractice law enforcement system, as well as make a theoretical contribution to the development of collaborative governance studies in health law and become a practical recommendation for the government in developing health law enforcement policies that are adaptive to the development of digital technology.

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Author Contribution

Both authors contributed substantially to the conception and design of the study, data collection, legal analysis, interpretation of findings, manuscript drafting, critical revision, and final approval of the published version. All authors share equal responsibility for the integrity, accuracy, originality, and scholarly quality of the research presented in this article.

Conflicts of Interest

The authors declare that there are no financial, professional, institutional, or personal conflicts of interest that could have influenced the research process, interpretation of findings, or publication of this manuscript. The study was conducted independently, objectively, and in accordance with accepted academic ethics, integrity, and professional research standards.

REFERENCES

- [1] N. N. Lisitskii and T. G. Maximova, “Prospects for the development of digital innovations in public healthcare,” *R-Economy*, vol. 11, no. 4, pp. 391–405, 2025, <https://doi.org/10.15826/recon.2025.11.4.021>.
- [2] A. Fitira, R. Subekti, and I. Isharyanto, “Kedudukan Rekomendasi Majelis Disiplin Profesi Sebagai Quasi-Penyelidikan Dalam Penyelesaian Sengketa Medik di Indonesia,” *J. Huk. IUS QUIA IUSTUM*, vol. 32, no. 3, pp. 653–680, 2025, <https://doi.org/10.20885/iustum.vol32.iss3.art6>.
- [3] F. Zhuravka *et al.*, “Digital Capacity, Startup Ecosystems, and Collaborative Governance As Drivers of Regional Economic Growth: Evidence From Ukrainian Regions,” *Probl. Perspect. Manag.*, vol. 23, no. 4, pp. 635–649, 2025, [https://doi.org/10.21511/ppm.23\(4\).2025.43](https://doi.org/10.21511/ppm.23(4).2025.43).
- [4] G. Consorti, L. Catarzi, A. Frosolini, L. A. Vaira, U. Committeri, and G. Cirignaco, “Artificial intelligence in oral and maxillofacial surgery: a scoping review of clinical applications, ethical challenges, and legal considerations,” *Int. J. Oral Maxillofac. Surg.*, vol. 55, no. 7, pp. 756–773, 2026, <https://doi.org/10.1016/j.ijom.2026.02.020>.
- [5] P. Robles, L. Azevedo, E. Best, and D. J. Mallinson, “Building Trust in Government AI: Balancing Innovation and Privacy in Healthcare Services,” *Public Organ. Rev.*, 2026, <https://doi.org/10.1007/s11115-026-01018-z>.
- [6] L. Adams, E. Fontaine, M. Matheny, and S. Krishnan, *An Artificial Intelligence Code of Conduct for Health and Medicine: Essential Guidance for Aligned Action*. National Academies Press, 2025. <https://doi.org/10.17226/29087>.
- [7] *Undang-Undang Nomor 17 Tahun 2023 Tentang Kesehatan*. Lembaran Negara Republik Indonesia Nomor 105 Tahun 2023, 2023.
- [8] S. T. Alfina and Y. A. Mangesti, “Peran Majelis Disiplin Profesi Dalam Penyelesaian Sengketa Medis Ditinjau Dari Undang-Undang Nomor 17 Tahun 2023 Tentang Kesehatan,” vol. 7, no. 1, 2025.
- [9] W. Andrianto, “Secarik Catatan Untuk Majelis Disiplin Dokter.” *Hukumonline*, Jul. 2024.
- [10] D. A. Hyman and C. Silver, “Medical Malpractice Litigation and Tort Reform: It’s the Incentives, Stupid,” *Vanderbilt Law Rev.*, vol. 59, no. 4, pp. 1085–1116, 2006.
- [11] N. Sherman and B. T. Nomani, “Alternative Dispute Resolution: Mediation as a Model,” *F1000Research*, vol. 13, no. 778, 2025, <https://doi.org/10.12688/f1000research.152362.2>.
- [12] J. Luo, “Analysis of Medical Malpractice Liability Disputes Related to Novel Antineoplastic Drugs and Research on Risk Prevention and Control Strategies,” *PLoS One*, vol. 18, no. 6, 2023, <https://doi.org/10.1371/journal.pone.0286623>.
- [13] M. Wei, “Doctors, Apologies, and the Law: An Analysis and Critique of Apology Laws,” *J. Health Law*, vol. 39, no. 4, 2007.
- [14] L. Mulcahy and W. Teeder, “Are Litigants, Trials and Precedents Vanishing After All?,” *Mod. Law Rev.*, vol. 85, no. 2, pp. 326–348, 2022, <https://doi.org/10.1111/1468-2230.12685>.
- [15] C. Ansell and A. Gash, “Collaborative governance in theory and practice,” *J. Public Adm. Res. Theory*, vol. 18, no. 4, pp. 543–571, 2008, <https://doi.org/10.1093/jopart/mum032>.
- [16] K. Emerson, T. Nabatchi, and S. Balogh, “An Integrative Framework for Collaborative Governance,” *J. Public Adm. Res. Theory*, vol. 22, no. 1, pp. 1–29, 2012, <https://doi.org/10.1093/jopart/mur011>.

- [17] M. U. Tariq, *Regulating AI in Healthcare*. IGI Global Scientific Publishing, 2026. <https://doi.org/10.4018/979-8-3373-5452-1.ch004>.
- [18] F. Bin Alam, A. Nijhof, A. Sohal, T. De Vass, and G. Croy, “Resilience for you, vulnerability for me: lessons to build a resilient, equitable, and sustainable global apparel supply chain,” *Int. J. Logist. Manag.*, 2026, <https://doi.org/10.1108/IJLM-03-2025-0225>.
- [19] M. S. Nasution, A. Syahza, Z. Rusli, M. Mayarni, D. Mashur, and F. Ananda, “Public Administration in the Era of Digital and Collaborative Governance: A Bibliometric Analysis,” *Otoritas J. Ilmu Pemerintah*, 2024, <https://doi.org/10.26618/ojip.v15i1.15911>.
- [20] M. P. Y. Ahad and A. N. Barsei, “Collaborative Governance Sistem Pemerintahan Berbasis Elektronik: Best Practice dari Pemerintah Daerah di Indonesia Timur,” *J. Transform. Adm.*, vol. 13, no. 1, pp. 53–72, 2023, <https://doi.org/10.56196/jta.v13i01.236>.
- [21] R. Mahardhika, “Complaint Management Strategy in Dealing with Allegations of Malpractice in the Digital Age,” *Strateg. Manaj. Pengaduan dalam Menghadapi Dugaan Malpraktik di Era Digit.*, 2023, <https://doi.org/10.37680/amalee.v4i2.3238>.
- [22] A. A. Çelik, Y. S. Balcioglu, and E. Altindağ, “Cross-national variations and demographic disparities in health surveillance system performance: a comparative analysis of OECD member countries,” *Heal. Res. Policy Syst.*, vol. 24, no. 1, 2026, <https://doi.org/10.1186/s12961-026-01471-8>.
- [23] J. He, Y. Bai, Y. Wang, Y. Zhang, Y. Song, and L. Lu, “Application of artificial intelligence in mental health management: toward early screening, assessment, and intervention,” *Acad. J. Nav. Med. Univ.*, vol. 47, no. 3, pp. 300–308, 2026, <https://doi.org/10.16781/j.CN31-2187/R.20250707>.
- [24] S. Fritzen, “Beyond Political Will: How Institutional Context Shapes the Implementation of Anti-Corruption Policies,” *Policy Soc.*, vol. 24, no. 3, pp. 79–96, 2005, [https://doi.org/10.1016/S1449-4035\(05\)70061-8](https://doi.org/10.1016/S1449-4035(05)70061-8).
- [25] D. Siswanto, “Regulatory Compliance And Experiences Of Islamic Cooperatives In Competitive Business In Indonesia,” *Sustain.*, vol. 11, no. 1, pp. 1–14, 2019, <https://doi.org/10.12816/0001418>.
- [26] J. Saldaña, *The Coding Manual for Qualitative Researchers*. London: Sage Publications, 2021.
- [27] A. Fitira, “Kedudukan Rekomendasi Majelis Disiplin Profesi Sebagai Quasi- Penyelidikan Dalam Penyelesaian Sengketa Medik di Indonesia,” *J. Huk. IUS QUIA IUSTUM*, vol. 32, no. November, pp. 653–680, 2025, <https://doi.org/10.20885/iustum.vol32.iss3.art6>.
- [28] H. Li and Y. Yao, “Interactive Effects Between Green Finance and the Digital Economy Across Chinese Provinces: Evidence from a Simultaneous Equation Model,” *J. Logist. Informatics Serv. Sci.*, vol. 12, no. 10, pp. 67–86, 2025, <https://doi.org/10.33168/JLISS.2025.1005>.
- [29] M. Sundström, “The integration void: knowledge-integrated governance in digital place innovation,” *J. Place Manag. Dev.*, vol. 19, no. 2, 2026, <https://doi.org/10.1108/JPM-D-11-2025-0174>.
- [30] J. Nogueira, T. Santos, A. Pina, and S. S. Martins, *Code Meets Care: The Digital Shift in Health Promotion*. IGI Global, 2026. <https://doi.org/10.4018/979-8-3373-3531-5.ch003>.
- [31] E. Handritha *et al.*, “Governance Innovation for Health Sustainability: Balikpapan City SDG Strategies,” in *E3S Web of Conferences*, E. A., Ed., EDP Sciences, 2025. <https://doi.org/10.1051/e3sconf/20256570306>.
- [32] T. Polzer and S. Öner, “Digital Accountability in Collaborative Public Governance in Times of Crisis: Analysing the Debate in a Polarized Social Forum,” *Abacus*, vol. 61, no. 1, pp. 239–271, 2025, <https://doi.org/10.1111/abac.12351>.
- [33] M. Labor, M. Cooke, R. Lombard-Vance, A. Zurkuhlen, B. Meenen, and A. Schüttler, “Mechanisms for the Participatory Governance of Technology-Mediated Health and Social Care,” *Stud. Health Technol. Inform.*, vol. 306, pp. 33–40, 2023, <https://doi.org/10.3233/SHTI230593>.

- [34] G. Luo, “Governing for sustainable health: institutional pathways in China’s sport and health policy (1949–present),” *Front. Public Heal.*, vol. 13, 2025, <https://doi.org/10.3389/fpubh.2025.1660488>.
- [35] H. Wang, Y. Gong, Y. Zhang, and F. Li, “Artificial Intelligence for Sustainable Cultural Heritage: Practical Guidelines and Case-Based Evidence,” *Sustain.*, vol. 17, no. 20, 2025, <https://doi.org/10.3390/su17209192>.
- [36] J. E. Yang and A. R. Kim, “Policy-aligned Research Trajectories in AI-Enabled Clinical Trials: A 2015–2025 Bibliometric Synthesis and Governance Implications for Korea and the UK,” *Open Public Health J.*, vol. 19, no. 1, 2026, <https://doi.org/10.2174/0118749445454045260120075224>.
- [37] W. Li, “Digital Innovation Networks for the SDGs: A Research Agenda for Higher Education Transformation,” *Eur. J. Educ.*, vol. 60, no. 4, 2025, <https://doi.org/10.1111/ejed.70292>.
- [38] R. Lombard-Vance, M. Labor, A. Zurkühlen, and M. Cooke, “Barriers to and Facilitators of Participation in Health and Social Care Governance: Categories and Cross-Cutting Themes from a Survey of SHAPES Project Partners,” *Stud. Health Technol. Inform.*, vol. 306, pp. 41–48, 2023, <https://doi.org/10.3233/SHTI230594>.
- [39] C. Oga-Omenka *et al.*, “Implementation of digital tuberculosis information systems: perspectives from 10 high TB burden countries,” *BMC Infect. Dis.*, vol. 26, no. 1, 2026, <https://doi.org/10.1186/s12879-026-12852-3>.
- [40] K. Chen, Q. Tao, Y. Wang, Z. Ding, and R. Fu, “Coupled coordination relationship and enhancement path between digital economy and essential public health services in China,” *Front. Public Heal.*, vol. 13, 2025, <https://doi.org/10.3389/fpubh.2025.1517353>.
- [41] Y. Xin Sun and L. Ying Wu, “From information literacy to health literacy: AI-driven transformation in university libraries under digital public health—a perspective,” *Front. Public Heal.*, vol. 14, 2026, <https://doi.org/10.3389/fpubh.2026.1841351>.
- [42] S. Arabi, D. Vindigni, and K. Butler-Henderson, “Exploring Challenges and Opportunities in International Healthcare Partnerships: A Thematic Analysis,” *World Med. Heal. Policy*, vol. 17, no. 3, pp. 456–467, 2025, <https://doi.org/10.1002/wmh3.70012>.
- [43] Y. Tong, H. Qianzhen, T. Bo, H. Bin, and Z. Min, “Analyzing the collaborative development needs of grassroots centers for disease control and prevention using the Kano model: A case study of China’s Chengdu–Chongqing Economic Circle,” *PLoS One*, vol. 21, no. 4, April, 2026, <https://doi.org/10.1371/journal.pone.0347594>.
- [44] Z. Zeng, L. Zhang, Z. Wang, and K. Guo, “Artificial intelligence empowering diabetes prevention and control in primary care: challenges and strategies,” *J. Chinese Physician*, vol. 28, no. 2, pp. 185–188, 2026, <https://doi.org/10.3760/cma.j.cn431274-20260204-00126>.