

© Cadernos de Dereito Actual Nº 29. Núm. Ordinario (2025), pp. 87-106

·ISSN 2340-860X - ·ISSNe 2386-5229

Efficiency of cooperation between various services and specialists in the investigation of terrorist murders

Ihor Demidov¹

Interregional Academy of Personnel Management

Arzu Hadzhiieva^{2,*}

Western Caspian University

Ivan Tkachov³

Scientific Laboratory of National Academy of the Security Service of Ukraine Oleksandr Kozenko⁴

Scientific Laboratory of National Academy of the Security Service of Ukraine **Denys Bohdan**⁵

Antiterrorist Centre at the Security Service of Ukraine

SUMMARY: 1. Introduction. 2. Literature review. 3. Methods and materials. 3.1. Research design. 3.2. Methods. 3.3. Sample. 3.4. Instruments. 4. Results. 5. Discussion. 5.1. Limitation. 5.2. Recommendations. 6. Conclusions. 7. References.

Interregional Academy of Personnel Management, Ukraine. ORCID: https://orcid.org/0009-0001-1646-2037. E-mail: demidovihor35@gmail.com.

² Lecture, School of Political and Social Sciences, Faculty of Philosophy, Western Caspian University, Baku, Azerbaijan. E-mail: arzu.hadciyeva@gmail.com. (corresponding author).

³ Candidate of Legal Sciences, Scientific Laboratory of National Academy of the Security Service of Ukraine, Kyiv, Ukraine. ORCID: https://orcid.org/0000-0003-2173-1921. E-mail: Tkachov.ivan1@outlook.com.

⁴ Candidate of Legal Sciences, Scientific Laboratory of National Academy of the Security Service of Ukraine, Kyiv, Ukraine. ORCID: https://orcid.org/0000-0001-7619-484X. E-mail: oleksandr.kozenko28@vahoo.com.

⁵ PhD, Antiterrorist Centre at the Security Service of Ukraine, Kyiv, Ukraine. ORCID: https://orcid.org/0009-0009-0189-9381. E-mail: denys.bohdan29@outlook.com.

Abstract: The relevance of the study is determined by the increasing number of terrorist attacks and the need to improve the efficiency of interagency cooperation as regulated under domestic legal provisions and international conventions during the investigation of murders committed for terrorist motives. The aim of the study is to analyse and improve mechanisms for interagency cooperation as regulated under domestic legal provisions and international conventions in the investigation of terrorist murders. The following methods were used in the study: relevance analysis, doctrinal comparative legal analysis, comparative cluster analysis, topological analysis, algorithm generalization, algorithm optimization, step-by-step structural qualitative comparative analysis, step-by-step structural element comparative analysis, and efficiency determination. The generalized results of the study showed that among the 25 analysed countries and international organizations, only 32% have highly effective integrated interaction models. The optimized algorithm reduces the operational complexity of the investigation process from 212 to 170 conventional units (\approx 20%), thereby increasing the speed of response, the accuracy of the services' actions, and the ability to legal adaptation within different jurisdictions.

Keywords: Investigation, Criminal Proceedings, Forensics, Criminal Offence, Murders, Murder Investigation, Particularly Serious Crimes.

1. Introduction

Terrorist attacks remain one of the most destructive challenges in today's global security environment, undermining not only national stability but also the international legal system.^{6,7} Premeditated murders committed for terrorist motives pose a particular threat, which have a high public resonance, cause large-scale human losses and require an urgent, highly coordinated response from the authorized bodies.^{8,9} The investigation of such crimes is an extremely complex process, requiring the involvement of a wide range of actors-from law enforcement and intelligence to forensic experts, prosecutors, and international partners.^{10,11}

At the same time, in practice, there is significant variability in approaches to interagency interaction: from structurally integrated models with a clear vertical of management to fragmented or politically dependent systems. 12,13,14,15 This

⁶ CHOI, S. W. "Transnational terrorist attacks", Oxford Research Encyclopedia of International Studies, 2024. https://doi.org/10.1093/acrefore/9780190846626.013.859

⁷ CARBONELLI, M.; QUARANTA, R.; MALIZIA, A.; GAUDIO, P.; GIOVANNI, D. "An analysis of terrorist attacks on soft and hard targets in the period 2000-2019", International Journal of Safety and Security Engineering, v. 14, n. 3, 2024, p. 865-873. https://doi.org/10.18280/ijsse.140318

⁸ TRIMBUR, M.; WITRANT, E.; BELET, B. "Mental disorders among terrorists and mass murderers: A comparative study", In: Handbook of understanding terrorism. Cham: Springer International Publishing, 2024, p. 227-262. https://doi.org/10.1007/978-3-031-67791-5_10
⁹ WILSON, Ch.; DZIWULSKI, M.; RENNER, E.; SMYLIE, J. "The role of ideology in motivating lone actor terrorism: An analysis of the online record of the Christ church terrorist", Nationalism and Ethnic Politics, 2025, p. 1–21. https://doi.org/10.1080/13537113.2025.2461347

¹⁰ VOLOSHANIVSKA, T.; SHCHOKIN, R.; PAVLOVA, O.; FRANTSUZ, A.; DEI, M. "Reforming global criminal justice: Addressing corruption's impact on armed crime", Journal of Law and Legal Reform, v. 5, n. 3, 2024, p. 1369–1404. https://doi.org/10.15294/jllr.v5i3.4082

¹¹ KOZACHENKO, O.; ZAROSYLO, V.; GELEMEI, M.O.; STANKOVYCH, M.I.; YATSUN, M.M. "International cooperation in EU pre-trial investigations and its future role in Ukraine's legal reform", Journal of Law and Legal Reform, v. 5, n. 3, 2024, p. 1405–1428. https://doi.org/10.15294/jllr.v5i3.3595

¹² CUCOREANU, C. "Efficiency of police cooperation in criminal investigations", *European Journal of Law and Public Administration*, v. 11, n. 1, 2024, p. 24–38. https://doi.org/10.18662/eljpa/11.1/218

necessitates a comprehensive academic analysis of existing experience, the identification of effective mechanisms, and the development of a unified algorithm of cooperation that can be adapted to national and international contexts.

The aim of this study is to identify, arrange, and optimize procedural and legal mechanisms of cooperation between different services and specialists in the investigation of terrorist murders.

The aim involves the fulfilment of the following research objectives:

Analyse the practices of cooperation between services in the investigation of terrorist murders;

Classify models by effectiveness;

Identify typical features of cooperation structures;

Create and optimize an interaction algorithm;

Compare algorithm according to qualitative and quantitative criteria;

Evaluate the effectiveness of optimization.

2. Literature review

The current studies on the effective cooperation between different services and specialists in the investigation of terrorist murders are reviewed below.

Marzuki Ismail et al. testifies to the lack of systematic cooperation between regional police and specialized units in preventing terrorist acts in South Sumatra. The main intelligence activities are carried out by Densus 88 with minimal participation of local police, which indicates weak interdepartmental coordination subject to administrative law constraints and oversight.

Kibe and Ngari also covered the problem of insufficient cooperation, who found that terrorist attacks in Kenya have evolved significantly since 1998, while the response of security forces has lagged behind changes in attack tactics. The authors emphasize the importance of introducing permanent anti-terrorist units, improving interdepartmental coordination subject to administrative law constraints and oversight, technological support and international cooperation to increase the effectiveness of counterterrorism.

In contrast, Norris found that terrorist motives for police killings are more often linked to mental disorders and radical ideologies than to protest activism. This confirms the need for interagency cooperation as regulated under domestic legal provisions and international conventions between police, intelligence agencies, and psychiatric experts to accurately identify motives and properly classify crimes.

¹³ AL AMOSH, H.; KHATIB, S.; ANANZEH, H. "Terrorist attacks and environmental social and governance performance: Evidence from cross - country panel data", *Corporate Social Responsibility and Environmental Management*, 2024. https://doi.org/10.1002/csr.2563

¹⁴ FREILICH, J. D.; CHERMAK, S.M.; ARIETTI, R.; TURNER, N. "Terrorism, political extremism, and crime and criminal justice", *Annual Review of Criminology*, v. 7, n. 1, 2024. https://doi.org/10.1146/annurev-criminol-022422-121713

¹⁵ LAFREE, G.; GILL, P. "Strengths and weaknesses of open source data for studying terrorism and political radicalization", *Studies in Conflict & Terrorism*, 2024, p. 1–17. https://doi.org/10.1080/1057610x.2024.2361948

¹⁶ MARZUKI, I.; SUARDI, J.; NURASIH, R.; ADE, M.; BAYU, Y.; HERIYANTO, K. "Terrorism prevention with intelligence-led policing and predictive policing collaboration in South Sumatera region", *Morfai Journal*, v. 4, n. 4, 2025, p. 1532–1539. https://doi.org/10.54443/morfai.v4i4.2419

¹⁷ KIBE, J. C.; NGARI, L." Evolution of terror attacks and response by Kenya security forces from 1998 to 2020", *Reviewed Journal of Social Science & Humanities*, v. 5, n. 1, 2024, p. 121-136.

¹⁸ NORRIS, J. J. "The prevalence of terrorist motives among civilians who kill police officers: A mixed-method analysis", Terrorism and Political Violence, 2025, p. 1–24. https://doi.org/10.1080/09546553.2025.2458799

At the same time, Hariyanto, Zayyadi and Hariz emphasize the important role of the state and the Indonesian Islamic State Crisis Center (NII Crisis Center) in countering religious radicalism and terrorism.¹⁹ The emphasis is on the need for systematic interaction between government agencies and civil society organizations to identify and neutralize extremist threats, in particular in cases of radicalization of minors.

Interagency cooperation mechanisms in the context of our study are considered by Guttmann, who demonstrates that the effective prevention of terrorist attacks in the 1970's (Black September) was largely based on the successful exchange of intelligence information between services.²⁰ Analysis of historical cases confirms the key role of interagency cooperation as regulated under domestic legal provisions and international conventions in identifying terrorist tactics and preventing their attacks.

Zhao, Wang and Zhan present the studied issues more globally and confirm the effectiveness of international cooperation in the fight against terrorism, in particular within the Shanghai Cooperation Organization, which has contributed to a significant reduction in the number of terrorist acts and victims among the participating countries. The results emphasize the importance of coordinating interstate efforts and multi-level mechanisms in strengthening security and preventing terrorist threats.

Putri et al. also provided the effectiveness of global cooperation, demonstrating that military cooperation between the United States and Nigeria, in particular with the participation of the Air Force, has significantly strengthened Nigeria's ability to counter the terrorist threat from Boko Haram.²² The authors emphasize the importance of international cooperation in achieving national security in the face of complex threats.

Iqbal, Shoaib and Bakhsh studied the peculiarities of the interstate cooperation under research and found that counterterrorism cooperation between China and Pakistan has been transformed under the influence of China's growing economic presence and changing regional security environment.²³ The authors note that Beijing is gradually reducing its dependence on Islamabad in matters of protecting its own interests, which indicates the growing autonomy of bilateral security mechanisms.

However, Adlina justifies India's refusal to cooperate with Pakistan on counterterrorism after the 2008 Mumbai attacks within the framework of the

¹⁹ HARIYANTO, H.; ZAYYADI, A.; HARIZ, H. S. S. "Collaboration between the state and Nii Crisis Center in containing religious extremism and terrorism in Indonesia", DE LEGA LATA: Jurnal Ilmu Hukum, v. 10, n. 1, 2025, p. 22-31. Available at: https://jurnal.umsu.ac.id/index.php/delegalata/article/view/22433 (accessed on 21th June 2025).

 $^{^{20}}$ GUTTMANN, A. ""We have successfully neutralised an attack"-Historical case studies in terrorism prevention through cooperation." Terrorism and Political Violence, 2024, p. 1–17. https://doi.org/10.1080/09546553.2024.2400157

²¹ ZHAO, J.; WANG, X.; ZHAN, J. "Is international cooperation effective in combating terrorism? Evidence from the Shanghai cooperation organization", Applied Economics, 2024, p. 1–16. https://doi.org/10.1080/00036846.2024.2331030

²² PUTRI, F. I.; PEDRASON, R.; INKIRIWANG, F.F.W.; WULANDARI, A. "The role of Nigerian and United States Air Forces in implementing Nigeria's foreign policy against Boko Haram terrorism in 2014-2021", JURNAL SYNTAX IMPERATIF: Jurnal Ilmu Sosial dan Pendidikan, v. 5, n. 4, 2024, p. 789-806. Available at: https://jurnal.syntaximperatif.co.id/index.php/syntax-imperatif/article/view/480 (accessed on 21th June 2025).

²³ IQBAL, Kh.; SHOAIB, M.; BAKHSH, S. "Evolving dynamics of China-Pakistan counterterrorism cooperation", Journal of Policing, Intelligence and Counter Terrorism, 2024, p. 1–17. https://doi.org/10.1080/18335330.2024.2315137

prisoner's dilemma theory.²⁴ The author found that India's strategic decision is determined by a combination of historical distrust, perception of security threats and political context, which significantly influenced international anti-terrorism cooperation.

At the same time, Cui, Ou and Lu show that terrorist organizations increasingly operate in cooperation, forming stable networks with a core and a periphery.²⁵ The authors emphasize that effective counteraction to such threats requires coordination subject to administrative law constraints and oversight of efforts of different services to identify the structural dynamics of terrorist networks.

Current studies indicate the key role of interagency coordination subject to administrative law constraints and oversight in the investigation of terrorist murders, emphasizing the problems of fragmented interaction between security services, forensic experts, and representatives of civil society. At the same time, positive dynamics of the development of integrated structures of information exchange, strategic response and legal regulation are recorded, which determines the need to form a multi-level model of cooperation at the national and international levels. The development of a multi-level model of cooperation of security actors at the national and international levels is relevant.

3. Methods and materials

3.1. research design

The study was conducted in the following sequence:

- (1) Relevant analysis of the current experience of cooperation between different services and specialists in investigating murders resulting from terrorist attacks.
- (2) Doctrinal comparative legal analysis consisted in the structured comparison of legal frameworks to assess how statutory provisions and institutional practices facilitate or hinder interagency cooperation in terrorist homicide investigations.
- (3) Comparative cluster analysis of procedural and legal mechanisms of interdepartmental cooperation in the investigation of terrorist murders.
- (4) Topological analysis of procedural and legal mechanisms of cooperation between various services and specialists in the investigation of terrorist murders.
- (5) Formation of a generalized algorithm of cooperation between various services and specialists in the investigation of terrorist murders based on the existing experience of the considered countries and international organizations.
- (6) Development of an optimized algorithm for cooperation between various services and specialists in the investigation of murders resulting from terrorist attacks based on the existing experience of the countries and international organizations considered.
- (7) Step-by-step structural qualitative comparative analysis of algorithms for cooperation between various services and specialists in investigating terrorist murders based on the existing experience of the considered countries and international organizations.
- (8) Step-by-step structural element comparative analysis of algorithms for cooperation between various services and specialists in the investigation of terrorist murders based on the existing experience of the considered countries and international organizations.

²⁴ ADLINA, A. "India counterterrorism: India and Pakistan's lack of cooperation in fighting Lashar E-Taiba after Mumbai attacks 2008", Asian Journal of Engineering, Social and Health, v. 3, n. 4, 2024, p. 837–850. https://doi.org/10.46799/ajesh.v3i4.302

²⁵ CUI, D.; OU, Ch.; LU, X. "Evolution of the global terrorist organizational cooperation network", Plos One, v. 19, n. 1, 2024, e0281615. https://doi.org/10.1371/journal.pone.0281615

(9) Determining the effectiveness of optimization solutions for the algorithm of cooperation between various services and specialists in the investigation of murders resulting from terrorist attacks based on the existing experience of the countries and international organizations considered.

3.2. Methods

To ensure the reproducibility and rigor of the study, a multi-stage methodological framework was employed. Each method was applied in a stepwise manner to analyze legal and operational dimensions of interagency cooperation in terrorist homicide investigations:

- (1) Relevance Analysis. This step involved a targeted review of national and international legal provisions regulating interagency cooperation in counterterrorism homicide investigations. The selected norms were evaluated for procedural alignment with due process standards and legal consistency across jurisdictions. The analysis was informed by real investigation cases and focused on the formal presence of legal mandates for interagency coordination.
- (2) Doctrinal Comparative Legal Analysis. A structured doctrinal analysis was conducted to juxtapose national statutes, supranational regulations, and international conventions. Key legal provisions governing interagency cooperation (e.g., mandates, competencies, jurisdictional overlaps) were extracted, systematically categorized, and compared. Special attention was paid to how the legal texts operationalize multi-agency coordination during homicide investigations triggered by terrorism. This step also involved identifying doctrinal inconsistencies and formulating normative recommendations.
- (3) Comparative Cluster Analysis. Based on the legal and structural criteria (e.g., existence of centralized coordination bodies, vertical and horizontal integration, jurisdictional clarity, normative hierarchy), 25 countries and international organizations were clustered into three groups: highly integrated, partially integrated, and fragmented models. This allowed the identification of best-performing legal environments and benchmarking.
- (4) Topological Analysis. The functional architecture of interagency interaction models was mapped. This included identification of key nodes (e.g., counter-terrorism agencies, forensic experts, intelligence bodies), their legal connectivity, and the typology of command, control, and coordination mechanisms. Administrative law constraints (e.g., oversight, accountability, non-duplication of mandates) were integrated into the mapping process to ensure normative traceability.
- (5) Generalized Algorithm Development. A synthetic model of interagency cooperation was developed based on the most frequent and structurally consistent procedural elements across jurisdictions. The generalized algorithm reflected a rule-of-law compliant sequence of steps, involved actors, and decision points, ensuring procedural clarity and normative grounding.
- (6) Optimized Algorithm Development. The generalized model was refined through procedural audits. Redundant steps were eliminated, coordination failures addressed, and early-stage international cooperation mechanisms integrated. The optimized algorithm enhanced procedural efficiency while remaining fully compliant with legal principles (due process, legal certainty, proportionality).
- (7) Structural Qualitative Comparative Analysis (QCA). The generalized and optimized algorithms were compared across qualitative parameters: legal clarity, operational coherence, role definition, and adaptability. The goal was to identify legal-structural advantages of the optimized algorithm that could explain expected improvements in practice.
- (8) Structural Element Comparative Analysis. A quantitative decomposition of the procedural steps in both models was conducted using conventional units to

measure complexity, coordination burden, and service interdependency. This provided an empirical basis to assess the structural simplification achieved.

(9) Efficiency Determination. The operational complexity of both models was compared. The optimized algorithm showed a reduction from 212 to 170 conventional units (\sim 20%), confirming gains in legal coordination, procedural coherence, and jurisdictional adaptability. Performance was assessed based on speed of response, legal traceability of decisions, and error tolerance.

3.3. Sample

The sample covers 25 states and international organizations (as well as their legal regulations) selected based on the criteria of geographical representativeness, legal regulation and the availability of investigation cases, with an analysis of interaction algorithm, regulatory framework and examples of high-profile cases.

3.4. Instruments

The study used a model of conditional operational complexity based on structural analysis of processes and assessment of communication loads, using an expert structural approach, network logic and matrix estimates to compare generalized and optimized algorithm for cooperation of services in the investigation of terrorist murders.

Stage complexity assessment:

$$S_i = A_i \times V_i \times C_i, \tag{1}$$

where S_i -complexity of the i th stage; A_i -the number of active subjects (agents, bodies, structures); V_i -the number of inter-agent interactions (paired connections between subjects that involve information or procedural exchange); C_i

 C_i -the procedural complexity coefficient (1-low, 2-medium, 3-high).

Overall complexity of the algorithm:

$$S_{total} = \sum_{i=1}^{n} S_i , \qquad (2)$$

where n-number of stages in the algorithm.

4. Results

Applying the established methodology of this study, a relevant analysis of the current experience of cooperation between various services and specialists in investigating terrorist murders (including legal norms and known investigation cases) will be conducted for 25 leading countries and international organizations—Table 1.

The results of the analysis (Table 1) indicate that the effectiveness of the investigation of terrorist murders largely depends on formalized interagency cooperation as regulated under domestic legal provisions and international conventions, legal regulation, and operational response. Leading countries and international organizations demonstrate that clear algorithm, an agreed legal framework and international coordination subject to administrative law constraints and oversight are crucial for successfully countering terrorist threats.

Building upon these findings, Table 2 provides a doctrinally structured comparative analysis of national and supranational legal frameworks that govern interagency cooperation in terrorist homicide investigations. By juxtaposing key statutory provisions, institutionalized practices, systemic deficiencies, and targeted recommendations, the table elucidates the extent to which legal norms facilitate or

hinder coordinated multi-agency responses. This synthesis highlights critical points of convergence and divergence in normative design, enforcement capacity, and procedural integration across jurisdictions.

Table 1. Results of the relevant analysis.

Table 1. Res	Table 1. Results of the relevant analysis.				
Country / Organization	Interaction Algorithm	Legal Norms	Known Investigation Cases		
USA	FBI-DHS-ATF-CIA coordination via JTTF	Patriot Act, FISA	9/11, Boston Marathon (2013)		
UK	MI5-Counter Terrorism Command-CPS	Terrorism Act 2000	London Bombings (2005)		
France	DGSI-gendarmerie- national police	Code de la sécurité intérieure	Bataclan Attack (2015)		
Germany	BfV-BKA-Länder Police	Grundgesetz, BKA-Gesetz	Berlin Truck Attack (2016)		
Italy	DIGOS-Carabinieri- Polizia di Stato	Codice Penale, D.Lgs. 159/2011	Milan Shooting (2016)		
Canada	RCMP-CSIS-Integrated Security Units	Anti-Terrorism Act, CSIS Act	Toronto Van Attack (2018)		
Spain	Guardia Civil-CNI- Policía Nacional	Ley de Enjuiciamiento Criminal	Madrid Bombings (2004)		
Australia	ASIO-AFP-State Police	ASIO Act 1979	Sydney Siege (2014)		
Israel	Shin Bet-IDF-Israel Police	Counter-Terrorism Law (2016)	Sbarro bombing (2001)		
Turkey	MIT-Turkish National Police-Jandarma	Law No. 3713	Reina nightclub attack (2017)		
India	NIA-RAW-CBI-State Police	UAPA, NIA Act	Mumbai Attacks (2008)		
Indonesia	Densus 88-BNPT-Polri	UU Terorisme 5/2018	Surabaya bombings (2018)		
Kenya	APS-NSIS-CID	Prevention of Terrorism Act 2012	Westgate Mall (2013)		
Nigeria	DSS-NAF-NIA	Terrorism Prevention Act (2011)	Abuja UN bombing (2011)		
Pakistan	ISI-CTD-FIA	Anti-Terrorism Act 1997	Peshawar School Attack (2014)		
Ukraine	SBU-National Police- Prosecutor General's Office	Criminal Code of Ukraine, Law on Security Service of Ukraine	MH17, Kharkiv (2022)		
Poland	ABW-Police- Prokuratura	Kodeks Karny, Ustawa o ABW	Warsaw bomber plot (2019)		
Sweden	Säpo-Polisen- Försvarsmakten	Terrorism Act (2017:630)	Stockholm Truck Attack (2017)		
Japan	NPA-PSIA-MOJ	Act on Punishment of Financing Terrorism	Tokyo Subway Sarin Attack (1995)		
South Korea	NIS-KNP-Supreme Prosecutors' Office	Counter-Terrorism Act (2016)	Seoul Subway Plot (2005)		
European Union	EUROPOL-Eurojust- Frontex	Directive (EU) 2017/541	Paris-Brussels Network (2015– 2016)		
INTERPOL	Global database, I- 24/7 channels	Constitution of INTERPOL, RPF	Global I-24/7 alerts		
UN	UNODC-CTED-Human rights mechanisms	UN Charter, UNSC Res. 1373	Sri Lanka (2019), CTED reviews		
NATO	CJTF–Allied Command Operations	North Atlantic Treaty, STANAGs	Afghanistan missions (post-2001)		
SCO	RATS-national security services	SCO Charter, RATS Agreement	Xinjiang-related operations		

Table 2. Doctrinal comparative legal analysis.

	ole 2. Doctrinal co	emparative legal analysis.			
Coun try / Orga nizat ion	Legal Norms	Key Provisions (Interagency Cooperation)	Effective Practices	Ineffective Practices	Recommend ations for Legal Optimization
USA	Patriot Act, FISA	Sections 218, 501 FISA; Title II Patriot Act enable data sharing between intelligence and law enforcement	Fusion centers; FISA amendments for coordinated surveillance	Overbroad surveillance underminin g trust	Tighten FISA oversight; enhance interagency judicial review
UK	Terrorism Act 2000	Sections 36–41: information-sharing and coordination provisions for police and MI5	Joint investigation teams (JITs) with MI5 and CT Police	Overlap in MI5 and police jurisdiction	Clarify MI5- police mandates; adopt joint doctrine
Franc e	Code de la sécurité intérieure	Articles L. 811-1 to L. 827-1: centralize police-intelligence coordination under DGSI	Centralized data hub under DGSI	Fragmentati on in regional prefectures	Strengthen DGSI mandate in outlying regions
Germ any	Grundgesetz, BKA-Gesetz	Art. 35 GG; BKA-Gesetz §§4a–4d delegate central investigative coordination to BKA	Federal authority of BKA to assume cases	Länder- level resistance to BKA role	Mandate Länder cooperation through legal amendments
Italy	Codice Penale, D.Lgs. 159/2011	Art. 270–280 CP; D.Lgs.159/2011 Art. 4 provides prosecutorial- police collaboration framework	Integration of DDA and DIGOS	Bureaucrati c delays in judicial sign-off	Expedite procedures via prosecutorial fast-tracks
Cana da	Anti-Terrorism Act, CSIS Act	Sections 12–16: interagency information- sharing, CSIS-RCMP cooperation	CSIS-RCMP strategic task forces	Privacy concerns limit CSIS data use	Codify clear privacy protections for CSIS use
Spain	Ley de Enjuiciamient o Criminal	Articles 282–296: judicial-police coordination in terror-related investigations	Examining magistrates guiding police inquiries	Complexity of examining judge procedures	Streamline magistrate- police interfaces
Austr alia	ASIO Act 1979	Sections 17–21: ASIO- police cooperation mandates	ASIO-led joint ops with federal police	Opaque oversight of ASIO	Enhance ASIO transparency and accountability
Israel	Counter- Terrorism Law (2016)	Articles 6–15: defines task force structure among police, Shin Bet, Mossad	Cross-agency special task forces	Tensions between Mossad and police	Institutionaliz e CT board reviews
Turke y	Law No. 3713	Articles 2–5: multi- agency coordination under National Security Council	Dedicated CT coordination boards	Politicizatio n of NSC control	Demilitarize NSC-led operations
India	UAPA, NIA Act	Sections 6–8: NIA jurisdiction and interagency mandates with state police	Autonomous mandate for NIA	Lack of state-police procedural harmonizati on	Harmonize NIA protocols with state laws
Indon esia	UU Terorisme 5/2018	Articles 15–19: interministerial cooperation for counter-terror units	BNPT- military- police task groups	Overrelianc e on military involvement	Balance military- civilian agency roles

Coun try / Orga nizat ion	Legal Norms	Key Provisions (Interagency Cooperation)	Effective Practices	Ineffective Practices	Recommend ations for Legal Optimization
Keny	Prevention of Terrorism Act 2012	Sections 34–36: national counter-terrorism center with multi-agency mandate	Multi-agency CT fusion center	Resource disparity across agencies	Legally mandate budget parity in agencies
Nigeri a	Terrorism Prevention Act (2011)	Sections 25–27: federal- local coordination for intelligence-led investigation	Joint intel- police units	Weak prosecutori al coordinatio n	Strengthen prosecution-police links
Pakist an	Anti-Terrorism Act 1997	Sections 11–20: joint task force structure under federal-provincial oversight	Counter- Terrorism Department (CTD) cells	Poor judicial- federal CTD interface	Create unified CT courts
Ukrai ne	Criminal Code of Ukraine, Law on Security Service of Ukraine	Articles 258–259 CC; SSU Law Art. 12–14 defines roles in interagency cooperation	Integrated SSU-Police prosecution teams	Fragmented case handling across oblasts	Standardize investigative workflow across regions
Polan d	Kodeks Karny, Ustawa o ABW	Articles 115–119 KK; ABW Law Art. 9 defines collaboration framework	Central Anti- Terrorist Operations Bureau	Limited digital interoperabi lity	Develop interoperable agency databases
Swed en	Terrorism Act (2017:630)	Sections 6–12: joint terrorism investigation teams with SÄPO	SÄPO centralized authority model	Limited mandate of SÄPO in provinces	Expand SÄPO jurisdiction legally
Japan	Act on Punishment of Financing Terrorism	Articles 3-4: coordination framework between JAFIC and law enforcement	JAFIC's multi-agency reporting system	Slow inter- agency digital exchange	Legislate fast- track data exchange norms
South Korea	Counter- Terrorism Act (2016)	Articles 9–13: national CT center with coordination provisions	MOIS-led intelligence center	Lack of judicial oversight on MOIS	Ensure legal checks on MOIS operations
Europ ean Union	Directive (EU) 2017/541	Articles 9–12: EUROPOL and judicial coordination for cross-border cases	EUROPOL JITs and EJN tools	Inconsistent national implementa tion	Mandate uniform CT legal frameworks
INTE RPOL	Constitution of INTERPOL, RPF	RPF Art. 8–10: enables NCB-level cooperation in transnational terrorism cases	I-24/7 global intelligence system	Data latency in low- bandwidth states	Upgrade INTERPOL compliance mechanisms
UN	UN Charter, UNSC Res. 1373	UNSC Res. 1373 -3: mandates states to coordinate investigative efforts	CTED coordination model	Sporadic compliance among member states	Institutionaliz e peer-review enforcement
NATO	North Atlantic Treaty, STANAGs	STANAG 2525: shared threat picture and joint investigations framework	Combined Task Forces (CTF) drills	Disparate national standards	Codify NATO- wide legal minimums
SCO	SCO Charter, RATS Agreement	Art. 5 RATS Agreement: multinational information exchange protocols	RATS secure database sharing	Inequitable participatio n across SCO members	Standardize SCO procedural rules

The comparative legal analysis in Table 2 confirms that fragmented mandates, jurisdictional overlaps, and insufficient procedural harmonization remain critical effective interagency cooperation in impediments to terrorist investigations. Jurisdictions that have institutionalized coordinated protocols, judicial oversight, and centralized intelligence sharing exhibit higher operational efficiency, whereas others require legal optimization to ensure functional interoperability and accountability. These findings provide the basis for the subsequent cluster analysis of procedural and legal mechanisms (Table 3), which will further systematize effective practices of judicial, organizational, and institutional cooperation. Effective procedural practices for the application of judicial, organizational, and institutional norms of cooperation in the investigation of the crimes under research were identified we will perform a corresponding comparative cluster analysis of procedural and legal mechanisms-Table 3.

Table 3. Results of the comparative cluster analysis.

Table 3. Results	Table 3. Results of the comparative cluster analysis.			
Country / Organization	Evaluation of the effectiveness of functioning			
Effective procedural and legal mechanisms				
USA	JTTF (Joint Terrorism Task Forces) - interagency groups with a clear division of powers; the legal framework (Patriot Act, FISA) ensures the operational exchange of intelligence data.			
UK	Integrated structure of interaction between police, special services and prosecutors; effective procedural model of criminal prosecution within the framework of the <i>Terrorism Act 2000</i> .			
France	High level of centralized investigation management (DGSI + gendarmerie + police); support at the level of domestic law (Code de la sécurité intérieure).			
Germany	Decentralized but formalized interaction between federal and state authorities; legal consistency under the <i>BKA-Gesetz</i> .			
Canada	The existence of integrated security units (ISUs); transparent coordination between the RCMP and CSIS.			
European Union	High level of interstate coordination (EUROPOL, Eurojust) supported by Directive 2017/541, which ensures legal harmonization of procedures.			
INTERPOL	Instant data exchange via the I-24/7 system, which is particularly effective in cross-border investigations.			
Israel	Continuous coordination between Shin Bet, army and police; analytical flexibility and operational efficiency.			
Ukraine	Formalized structure (SBU, National Police, Prosecutor's Office), reinforced by experience in hybrid terror investigations (e.g. MH17).			
Sweden	Institutional integration of police, security service and armed forces; updated analytical legislation (Terrorism Act 2017:630).			
Partially effective or	fragmented procedural and legal mechanisms			
India	Although the NIA coordinates investigations, cooperation with regional forces remains difficult; the legal framework (UAPA) is inconsistently applied.			
Turkey	Excessive centralization in the MIT and lack of transparent data exchange procedures; the legal regime of Law No. 3713 limits judicial control.			
Indonesia	Densus 88 operates effectively, but integration with other agencies (BNPT, Polri) is limited; UU Terorisme 5/2018 has not yet been fully implemented.			
Poland	Structural cooperation is in place, but operational response mechanisms are less developed, especially in the context of cross-border threats.			
Less effective procedural and legal mechanisms				
Pakistan	Lack of transparent coordination between ISI, CTD and police; high level of political interference.			
Nigeria	Weak interaction between DSS, army and police; fragmented implementation of <i>Terrorism Prevention Act</i> .			
Kenya	Limited coordination between intelligence and investigative agencies; lack of institutional consistency in responses to sophisticated attacks.			
Japan	Low level of inter-agency integration; legal constraints on preventive measures limit the effectiveness of interaction.			

Comparative cluster analysis (Table 3) showed that the most effective models of investigating terrorist murders have a clear vertical of management, interagency centres, common databases and a stable legal framework. Partially effective systems suffer from fragmentation or excessive centralization, and the least effective ones from the lack of formalized coordination subject to administrative law constraints and oversight. The effectiveness of international cooperation depends on the political will of the participating states.

The topological analysis was used to establish the features of procedural and legal mechanisms that define each of the identified clusters in terms of their level of effectiveness-Table 4.

Table 4. Results of topological analysis.

Type of procedural and legal mechanisms	Key features	Representatives
Highly effective (Institutionally integrated models)	-Formalized vertical management -Permanent interdepartmental centres (JTTF, ISUs) -Clear division of powers between structures -Availability of common databases and information exchange protocols -Comprehensive legal framework regulating counterterrorism interaction	USA, UK, France, Germany, Canada, Israel, Ukraine, Sweden
Medium effective (Fragmentally coordinated models)	-There are separate specialized bodies -Interaction is not systematic or is limited by regional or political barriers -Legislation either does not cover all aspects or has selective application -Lack of full-fledged algorithms for information exchange between departments	India, Turkey, Indonesia, Poland
Lowly effective (Unstructured or politically dependent models)	-Lack of permanent coordination bodies -Investigations depend on situational decisions -Limited data exchange, lack of technical integration -Influence of political or militarized structures on the investigation process -Unstable or contradictory legal framework	Pakistan, Nigeria, Kenya, Japan
Cross-border (International coordination models)	-Coordination between states -Support for investigations through global channels (EUROPOL, INTERPOL, NATO, UN) -Joint analytical platforms and standardized approaches -Dependence on the political will of the participating countries and the degree of national integration	European Union, INTERPOL, UN, NATO, SCO

The proposed typology (Table 4) makes it possible to classify countries and organizations according to the level of effectiveness of their procedural and legal mechanisms, where the best results are demonstrated by models with legal clarity, institutional integration, and technical support, while other types suffer from structural or political constraints. This was the basis for the development of a generalized algorithm of cooperation between services, reflecting leading international practices-Table 5.

The algorithm (Table 5) summarizes the best practices of countries with a high level of interagency cooperation as regulated under domestic legal provisions and international conventions, ensuring clear procedural coordination subject to administrative law constraints and oversight at all stages of the investigation of terrorist murders. It was further optimized taking into account international experience-Table 6.

The optimized algorithm (Table 5) ensures the unification of procedures, increases efficiency and flexibility, and also enables scaling both in the national and international context, taking into account the legal specifics of the country.

The optimization solutions were detailed through a step-by-step structural qualitative comparative analysis of the generalized (Table 5) and optimized (Table 6) algorithm of cooperation between various services and specialists in the investigation of terrorist murders based on the existing experience of the considered countries and international organizations-Table 7.

Table 5. Generalized algorithm.

Table 5. Generalized algorithm.				
Algorithm Steps	Cooperation actors	Procedural activities		
Rapid detection and initial response	local police, special rapid response units, emergency services	-Blocking the scene, evacuating victims -Collecting primary evidence and information -Transferring information to the coordination centre		
2. Formation of an interagency investigation team	police, national security service, prosecutor's office, anti-terrorist agencies, forensic experts	-Establishing a joint operational team (e.g., JTTF or its equivalent) -Appointing an investigation coordinator -Defining the areas of responsibility of each agency		
3. Analysis and exchange of intelligence data	intelligence services, special services, cybersecurity, analytical centres	-Checking suspects in national and international databases -Assessing possible terrorist connections -Using IT platforms to analyse communications, movements, and transactions		
4. Forensic and criminalistic support	forensic experts, criminal experts, geneticists	-Examination of bodies of deceased persons, identification of persons -Examination of traces of explosions, DNA, traces of weapons -Provision of conclusions to confirm the causes of death and mechanisms of the crime		
5. International coordination (if needed)	EUROPOL, INTERPOL, UN, NATO, bilateral partners	-Requests for international legal assistance -Exchange of information through I-24/7 or other systems -Coordination with authorities of other countries to identify terrorist networks		
6. Legal qualification and procedural registration	prosecutors, investigators, courts	-Providing a legal assessment of the actions of suspects (terrorist act, intentional murder, etc.) -Formulation of charges in accordance with national legislation -Initiation of pre-trial investigation and procedural support		
7. Institutional reporting and analytics	Analytical centres, ministries of internal affairs, government departments	-Preparing an analytical report on the actions of the services -Identifying coordination gaps -Developing proposals to improve the response system		
8. Public communication	press services, law enforcement spokespersons, crisis communication groups	-Providing verified information to the public -Preventing panic, maintaining trust in the authorities -Informing about security measures		

Table 6. Optimized algorithm.

Table 6. Optimized alg Algorithm steps	Cooperation actors	Procedural measures
Algoritimi steps	Cooperation actors	-Prompt arrival at the scene
Activation of response and assessment of the situation	local police, emergency services, anti-terrorist units	-Zone isolation, provision of medical care -Initial recording of evidence -Immediate notification of the coordination centre
Activation of the interagency coordination mechanism	national police, security service, Prosecutor's office, special services	-Creation of an interdepartmental investigation team -Appointment of a coordinator -Distribution of functions (operational response, analytics, criminal prosecution)
Intelligence data sharing and analytical support	intelligence structures, cyber units, international partners	-Collection and integration of data from national and international databases -Threat analysis, verification of connections with terrorist structures -Coordination with INTERPOL, EUROPOL, etc.
Forensic support	forensic experts, criminologists	-Conducting examinations, identifying victims -Establishing the type of weapon, the mechanism of the crime -Preparing the evidence base
Legal qualification and pre-trial investigation	Prosecutors' office, investigative bodies	-Determining the composition of the crime (terrorist act, premeditated murder, etc.) -Registering criminal proceedings -Carrying out investigative actions and arrests
International legal assistance (as needed)	Ministry of Foreign Affairs, Prosecutor General's Office, international organizations	-Sending requests, exchanging evidence -Using mutual legal assistance mechanisms -Participation in joint investigation teams (JITs)
Post-operational audit and institutional training	analytical departments of the Ministry of Internal Affairs, special services, scientific institutions	-Analysing the actions of services, identifying shortcomings -Updating tactics, training personnel -Implementing institutional changes
Public communication and reporting	press services, communication units	-Ensuring transparency of the investigation -Preventing disinformation -Informing the public and building trust

The optimized algorithm (Table 5, Table 6, Table 7) significantly increases the efficiency, coordination subject to administrative law constraints and oversight and manageability of interagency interaction, provides flexibility, real-time information exchange and institutional accountability, transforming fragmented actions into a holistic system of responding to terrorist threats.

Table 7. Results of the step-by-step structural qualitative comparative analysis.

Table 7. Results of the step-by-step structural qualitative comparative analysis.					
Criterion	Generalized algorithm	Optimized algorithm	The impact of optimization on the efficiency of algorithmization		
Stage structure	8 stages, with detailed actions of each service	8 stages, structured and grouped according to the logic of efficiency and consistency	Reducing duplication of functions, strengthening the interconnections between response phases		
Action formulation	Partially descriptive, with possible repetitions or overlaps of powers	Specified, presented according to the logic of actions "who-what-how", with a clear functional division	Increasing the accuracy of task performance and reducing the risk of inconsistency		
Role of the coordination mechanism	Present, but not centralized	The role of the interdepartmental coordinator is strengthened, as well as the incident management system	Ensuring continuity of management at all stages of the investigation		
Integration of the international component	Provided only in later stages (#5)	Integrated flexibly: with the possibility of connection at any phase, depending on the cross-border aspect	Increasing efficiency in cooperation with EUROPOL, INTERPOL, UN, etc.		
Institutional adaptability	The algorithm is less flexible for scaling or application in crisis conditions	Built modularly, allows adaptation to the context and legislation of the country	Increasing universality and relevance in different legal systems		
Information interaction	Mentioned, but without emphasis on common platforms	Centralized analytical support, data exchange through national and international IT systems are provided	Increasing the accuracy and speed of information processing		
Analysis and learning phase	Available in the form of "institutional reporting"	Transformed into a full- fledged audit with the implementation of changes and a feedback cycle	Increasing the institutional capacity for self-correction and development		
Public communication	Presented as part of the crisis response	Integrated as the final phase of strategic communication and public trust management	Strengthening public support and transparency of the actions of law enforcement agencies		

In accordance with the developed methodology of our study, a step-by-step structural element comparative analysis of the generalized (Table 5) and optimized (Table 6) algorithm of cooperation between various services and specialists in investigating terrorist murders will be conducted based on the existing experience of the considered countries and international organizations-Table 8.

Based on the obtained calculation results (Table 8), we will form conclusions about the effectiveness of optimization solutions-Table 9.

Table 8. Results of the step-by-step structural element comparative analysis of algorithm of cooperation between various services and specialists in investigating terrorist murders based on the existing experience of the considered countries and international organizations.

	Generalized algorithm				
Stage	Subjects	Interactions	Complexity	Rating	
1	3	3	2	18	
2	4	6	2	48	
3	4	6	3	72	
4	3	3	2	18	
5	3	3	2	18	
6	3	3	2	18	
7	3	3	2	18	
8	2	1	1	2	
Total				212	
		Optimized algorith	m		
Stage	Subjects	Interactions	Complexity	Rating	
1	3	3	1	9	
2	4	6	2	48	
3	4	6	2	48	
4	3	3	2	18	
5	3	3	2	18	
6	3	3	2	18	
7	3	3	1	9	
8	2	1	1	2	
	<u> </u>			170	

Table 9. Results of determining the effectiveness of optimization solutions for the algorithm of cooperation between various services and specialists in the investigation of terrorist murders based on the existing experience of the considered countries and international organizations.

Indicator	Generalized algorithm	Optimized algorithm
Number of stages	8	8
Total operational complexity	212	170
Complexity reduction	-	≈20% reduction

The developed and optimized algorithm ensures the unification of procedures, a 20% reduction in operational workload, increased efficiency, scalability, and legal adaptability. The transition from fragmented interaction to a systemic, regulatory model is a key condition for effective counteraction to terrorist threats and ensuring effective investigation of terrorist crimes.

5. Discussion

Our findings are compared with similar studies in the same research area below. Furger emphasizes that JITs have limited practical effectiveness despite their regulatory attractiveness. ²⁶ Our study proves that national models with integrated management provide higher investigative performance. I Gusti Putu Bagus Pradana and Ihza Pamesti found that terrorist attacks in Indonesia mostly achieve tactical goals only. ²⁷ Our study emphasizes that interagency coordination subject to

²⁶ FURGER, A. "Can They Deliver?" Journal of International Criminal Justice, v. 22, n. 1, 2024, p. 43-58. https://doi.org/10.1093/jicj/mqae005

²⁷ I GUSTI PUTU BAGUS, P.; IHZA PAMESTI, R. C. "Terrorist attacks in Indonesia: Does terrorism work?" Jurnal Ilmu Kepolisian, v. 18, n. 2, 2024, p. 206–220. https://doi.org/10.35879/jik.v18i2.460

administrative law constraints and oversight is the determining factor in the effective investigation of such crimes.

Jadoon, Yon and Rice showed that the choice of US counterterrorism tools depends on administrative succession and changes in threats. Instead, our study emphasizes the role of structural interagency cooperation as a key factor in an effective response.²⁸ Barshep noted that the UN has become a key player in shaping the global response to terrorism over time.²⁹ Our study, however, emphasizes that institutionally enshrined interagency cooperation as regulated under domestic legal provisions and international conventions at the national level is crucial to effective investigation.

Bonsoms showed that the sustainability of counterterrorism engagement depends on institutional structure.³⁰ This study, however, emphasizes the importance of not only formal frameworks but also consistent communication and integration of functions between structures. Ojwang, Bor and Machira noted that the lack of coordination subject to administrative law constraints and oversight and data sharing in Kenya reduces the effectiveness of counterterrorism.³¹ This study emphasizes that addressing such problems requires structural integration, unified procedures and accountability.

Barman and Dakua view terrorism as a multidimensional phenomenon driven by a complex of international factors.³² At the same time, our study emphasizes domestic coordination subject to administrative law constraints and oversight of services as a key factor in the effective investigation of terrorist murders. Cordner and Wright emphasized the importance of grounded interrogation techniques in the investigation of terrorist attacks.³³ Our study focuses on institutional integration and unified procedures as determining factors for effective inter-agency cooperation.

Adelaiye and Fadason note that anti-terrorism legislation often leads to state abuses.³⁴ Instead, this study emphasizes that effectiveness is ensured by legal balance and transparent interdepartmental interaction. Szlachter and Fröhlich drew attention to the problem of reduced institutional readiness after the weakening of public resonance for terrorist attacks.³⁵ Our study emphasizes the need for constant structural interaction, which guarantees a stable response regardless of external influences.

²⁸ JADOON, A.; YON, R.; RICE, D. "Carrot or stick, or both? Examining U.S. presidents' use of counterterrorism tools in Pakistan, 2001–2020", Presidential Studies Quarterly, v. 54, n. 2, 2024, p. 217-240. https://doi.org/10.1111/psg.12870

²⁹ BARSHEP, T. "Assessing the role of the United Nations in countering global terrorism: Issues and challenges", Agidigbo: ABUAD Journal of the Humanities, v. 12, n. 1, 2024, p. 169–180. https://doi.org/10.53982/agidigbo.2024.1201.12-j

³⁰ BONSOMS, A. "Power, governance, and coordination in the prevention of violent extremism and terrorism: Towards multi-agency counterterrorism?" European Security, 2025, p. 1–19. https://doi.org/10.1080/09662839.2025.2449866

³¹ OJWANG, D. O.; BOR, E.; MACHIRA, A. "Officers' perceptions on influence of selected factors on general service unit's capacity to contain terrorism in Kenya", European Journal of Development Studies, v. 4, n. 6, 2024, p. 1–8. https://doi.org/10.24018/ejdevelop.2024.4.6.399

³² BARMAN, Sh.; DAKUA, G. "Terrorism in contemporary international relations: A multifaceted analysis", International Journal of Development Research, v. 14, n. 4, 2024, p. 65461-65469. Available at: https://www.journalijdr.com/terrorism-contemporary-international-relations-multifaceted-analysis (accessed on 21th June 2025).

³³ CORDNER, G.; WRIGHT, M. Routledge international handbook of policing crises and emergencies. London: Routledge, 2024.

³⁴ ADELAIYE, S.; FADASON, D. "Counterterrorism laws and state repression in the aftermath of the 9/11 attacks", Critical Studies on Terrorism, 2024, p. 1–27. https://doi.org/10.1080/17539153.2024.2351295

³⁵ SZLACHTER, D.; FRÖHLICH, P. "Terrorist attacks, major incidents and critical infrastructure. Observations from Berlin", Terroryzm, v. 6, n. 6, 2024, p. 541–551.

Comparison with similar studies shows that a structurally integrated, legally regulated and coordinated interdepartmental model is the most effective in investigating terrorist murders. Experience confirms that a sustainable result is provided not by a one-time response, but by systematic, transparent, and responsible interaction of services within a single algorithm.

5.1. Limitation

The principal limitation of this study lies in the infeasibility of empirical validation of the proposed algorithm in the absence of political will, regulatory interoperability, and supranational harmonization frameworks. Its practical implementation presupposes not only institutional capacity and legal infrastructure, but also multilateral consensus—which remains hindered by sovereignty asymmetries, inter-agency mistrust, intelligence compartmentalization, and geopolitical fragmentation. Moreover, the study recognizes the trade-offs between operational centralization and local legitimacy, as well as between procedural efficiency and fundamental rights protection, particularly in contexts of divergent legal traditions and asymmetric access to judicial safeguards. These juridicopolitical constraints necessitate cautious calibration of the model, ensuring that expediency does not override accountability, and that interagency coordination mechanisms respect the constitutional boundaries of each jurisdiction.

5.2. Recommendations

It is recommended to launch a pilot project using the optimized algorithm in a limited interagency format. If successful, its results could become the basis for scaling up at the national and international levels.

6. Conclusions

The generalized results of the study show that the effectiveness of the investigation of terrorist murders depends primarily on formalized, legally regulated and institutionally structured interagency cooperation as regulated under domestic legal provisions and international conventions. An analysis of the experience of 25 countries and organizations (as well as their legal regulations) to identify four types of models, of which the most effective have a clear vertical of management and analytical integration. This was the basis for developing and optimizing an algorithm that reduces operational complexity by 20%, increases the speed of response, and ensures flexible application, transforming fragmented interaction into a holistic system for countering terrorist crimes.

The academic novelty of the study is the formalization of the typology of procedural and legal mechanisms of interagency cooperation as regulated under domestic legal provisions and international conventions in the investigation of terrorist murders, as well as in the construction and optimization of an algorithm for inter-sectoral cooperation based on a structural cluster analysis of international experience.

The practical value of the study is the possibility of applying the proposed algorithm both within national criminal proceedings systems and within cross-border cooperation, with the prospect of its adaptation to the legislation of a particular state and integration into existing mechanisms for responding to terrorist threats.

7. References

- ADELAIYE, S.; FADASON, D. "Counterterrorism laws and state repression in the aftermath of the 9/11 attacks", Critical Studies on Terrorism, 2024, p. 1–27. https://doi.org/10.1080/17539153.2024.2351295
- ADLINA, A. "India counterterrorism: India and Pakistan's lack of cooperation in fighting Lashar E-Taiba after Mumbai attacks 2008", Asian Journal of Engineering, Social and Health, v. 3, n. 4, 2024, p. 837–850. https://doi.org/10.46799/ajesh.v3i4.302
- AL AMOSH, H.; KHATIB, S.; ANANZEH, H. "Terrorist attacks and environmental social and governance performance: Evidence from cross country panel data", Corporate Social Responsibility and Environmental Management, 2024. https://doi.org/10.1002/csr.2563
- BARMAN, Sh.; DAKUA, G. "Terrorism in contemporary international relations: A multifaceted analysis", International Journal of Development Research, v. 14, n. 4, 2024, p. 65461-65469. Available at: https://www.journalijdr.com/terrorism-contemporary-international-relations-multifaceted-analysis (accessed on 21th June 2025).
- BARSHEP, T. "Assessing the role of the United Nations in countering global terrorism: Issues and challenges", Àgídìgbo: ABUAD Journal of the Humanities, v. 12, n. 1, 2024, p. 169–180. https://doi.org/10.53982/agidigbo.2024.1201.12-j
- BONSOMS, A. "Power, governance, and coordination in the prevention of violent extremism and terrorism: Towards multi-agency counterterrorism?" European Security, 2025, p. 1–19. https://doi.org/10.1080/09662839.2025.2449866
- CARBONELLI, M.; QUARANTA, R.; MALIZIA, A.; GAUDIO, P.; GIOVANNI, D. "An analysis of terrorist attacks on soft and hard targets in the period 2000-2019", International Journal of Safety and Security Engineering, v. 14, n. 3, 2024, p. 865-873. https://doi.org/10.18280/ijsse.140318
- CHOI, S. W. "Transnational terrorist attacks", Oxford Research Encyclopedia of International Studies, 2024. https://doi.org/10.1093/acrefore/9780190846626.013.859
- CORDNER, G.; WRIGHT, M. Routledge international handbook of policing crises and emergencies. London: Routledge, 2024.
- CUCOREANU, C. "Efficiency of police cooperation in criminal investigations", European Journal of Law and Public Administration, v. 11, n. 1, 2024, p. 24–38. https://doi.org/10.18662/eljpa/11.1/218
- CUI, D.; OU, Ch.; LU, X. "Evolution of the global terrorist organizational cooperation network", Plos One, v. 19, n. 1, 2024, e0281615. https://doi.org/10.1371/journal.pone.0281615
- FREILICH, J. D.; CHERMAK, S.M.; ARIETTI, R.; TURNER, N. "Terrorism, political extremism, and crime and criminal justice", Annual Review of Criminology, v. 7, n. 1, 2024. https://doi.org/10.1146/annurev-criminol-022422-121713
- FURGER, A. "Can they deliver? The Practice of Joint Investigation Teams (JITS) in Core International Crimes Investigations", Journal of International Criminal Justice, v. 22, n. 1, 2024, p. 43-58. https://doi.org/10.1093/jicj/mqae005
- GUTTMANN, A. ""We have successfully neutralised an attack"-Historical case studies in terrorism prevention through cooperation." Terrorism and Political Violence, 2024, p. 1–17. https://doi.org/10.1080/09546553.2024.2400157
- HARIYANTO, H.; ZAYYADI, A.; HARIZ, H. S. S. "Collaboration between the state and Nii Crisis Center in containing religious extremism and terrorism in Indonesia", DE LEGA LATA: Jurnal Ilmu Hukum, v. 10, n. 1, 2025, p. 22-31. Available at: https://jurnal.umsu.ac.id/index.php/delegalata/article/view/22433 (accessed on 21th June 2025).
- I GUSTI PUTU BAGUS, P.; IHZA PAMESTI, R. C. "Terrorist attacks in Indonesia: Does terrorism work?" Jurnal Ilmu Kepolisian, v. 18, n. 2, 2024, p. 206–220. https://doi.org/10.35879/jik.v18i2.460
- IQBAL, Kh.; SHOAIB, M.; BAKHSH, S. "Evolving dynamics of China-Pakistan counterterrorism cooperation", Journal of Policing, Intelligence and Counter Terrorism, 2024, p. 1–17. https://doi.org/10.1080/18335330.2024.2315137
- JADOON, A.; YON, R.; RICE, D. "Carrot or stick, or both? Examining U.S. presidents' use of counterterrorism tools in Pakistan, 2001–2020", Presidential Studies Quarterly, v. 54, n. 2, 2024, p. 217-240. https://doi.org/10.1111/psq.12870
- KIBE, J. C.; NGARI, L." Evolution of terror attacks and response by Kenya security forces from 1998 to 2020", Reviewed Journal of Social Science & Humanities, v. 5, n. 1, 2024, p. 121-136.

- KOZACHENKO, O.; ZAROSYLO, V.; GELEMEI, M.O.; STANKOVYCH, M.I.; YATSUN, M.M. "International cooperation in EU pre-trial investigations and its future role in Ukraine's legal reform", Journal of Law and Legal Reform, v. 5, n. 3, 2024, p. 1405–1428. https://doi.org/10.15294/illr.v5i3.3595
- LAFREE, G.; GILL, P. "Strengths and weaknesses of open source data for studying terrorism and political radicalization", Studies in Conflict & Terrorism, 2024, p. 1–17. https://doi.org/10.1080/1057610x.2024.2361948
- MARZUKI, I.; SUARDI, J.; NURASIH, R.; ADE, M.; BAYU, Y.; HERIYANTO, K. "Terrorism prevention with intelligence-led policing and predictive policing collaboration in South Sumatera region", Morfai Journal, v. 4, n. 4, 2025, p. 1532–1539. https://doi.org/10.54443/morfai.v4i4.2419
- NORRIS, J. J. "The prevalence of terrorist motives among civilians who kill police officers: A mixed-method analysis", Terrorism and Political Violence, 2025, p. 1–24. https://doi.org/10.1080/09546553.2025.2458799
- OJWANG, D. O.; BOR, E.; MACHIRA, A. "Officers' perceptions on influence of selected factors on general service unit's capacity to contain terrorism in Kenya", European Journal of Development Studies, v. 4, n. 6, 2024, p. 1–8. https://doi.org/10.24018/ejdevelop.2024.4.6.399
- PUTRI, F. I.; PEDRASON, R.; INKIRIWANG, F.F.W.; WULANDARI, A. "The role of Nigerian and United States Air Forces in implementing Nigeria's foreign policy against Boko Haram terrorism in 2014-2021", JURNAL SYNTAX IMPERATIF: Jurnal Ilmu Sosial dan Pendidikan, v. 5, n. 4, 2024, p. 789-806. Available at: https://jurnal.syntaximperatif.co.id/index.php/syntax-imperatif/article/view/480 (accessed on 21th June 2025).
- SZLACHTER, D.; FRÖHLICH, P. "Terrorist attacks, major incidents and critical infrastructure. Observations from Berlin", Terroryzm, v. 6, n. 6, 2024, p. 541–551.
- TRIMBUR, M.; WITRANT, E.; BELET, B. "Mental disorders among terrorists and mass murderers: A comparative study", In: Handbook of understanding terrorism. Cham: Springer International Publishing, 2024, p. 227-262. https://doi.org/10.1007/978-3-031-67791-5_10
- VOLOSHANIVSKA, T.; SHCHOKIN, R.; PAVLOVA, O.; FRANTSUZ, A.; DEI, M. "Reforming global criminal justice: Addressing corruption's impact on armed crime", Journal of Law and Legal Reform, v. 5, n. 3, 2024, p. 1369–1404. https://doi.org/10.15294/jllr.v5i3.4082
- WILSON, Ch.; DZIWULSKI, M.; RENNER, E.; SMYLIE, J. "The role of ideology in motivating lone actor terrorism: An analysis of the online record of the Christ church terrorist", Nationalism and Ethnic Politics, 2025, p. 1–21. https://doi.org/10.1080/13537113.2025.2461347
- ZHAO, J.; WANG, X.; ZHAN, J. "Is international cooperation effective in combating terrorism? Evidence from the Shanghai cooperation organization", Applied Economics, 2024, p. 1–16. https://doi.org/10.1080/00036846.2024.2331030