

Admissibility of Digital Evidence in Human Trafficking Cases: A Normative Analysis of Kazakhstan's Legal Framework

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ABSTRACT

Human trafficking is a transnational and multidimensional crime that poses serious challenges to criminal investigation and proof, particularly in the digital era. This study examines the process of proving human trafficking offences, with particular attention to the evidentiary role and admissibility of digital evidence. It employs a normative/doctrinal legal research method, supported by a comparative analysis of Kazakhstan's legal framework and relevant international legal instruments. The study finds that proving human trafficking requires a combination of conventional investigative measures and digitally mediated evidentiary tools, including electronic records, screen captures, web-based data, and metadata. However, the legal regulation of digital evidence remains fragmented, especially with regard to its classification, admissibility, preservation, and cross-border use in criminal proceedings. The analysis further shows that Kazakhstan's legal framework provides basic recognition of electronic documents but does not yet offer a sufficiently clear procedural framework for handling digital evidence in trafficking cases. This article contributes to the literature by linking the evidentiary challenges of digital evidence directly to the prosecution of human trafficking offences and by highlighting the need for a more coherent legal framework governing authenticity, integrity, and admissibility. The findings suggest that stronger procedural safeguards, legal reform, and enhanced international cooperation are necessary to improve the effectiveness of trafficking prosecutions.

Keywords: Admissibility; digital evidence; human trafficking; Kazakhstan; procedural transformation.

ABSTRAK

Perdagangan manusia adalah kejahatan transnasional dan multidimensional yang menimbulkan tantangan serius bagi investigasi dan pembuktian kriminal, khususnya di era digital. Studi ini meneliti proses pembuktian tindak pidana perdagangan manusia, dengan perhatian khusus pada peran pembuktian dan penerimaan bukti digital. Studi ini menggunakan metode penelitian hukum normatif/doktrinal, yang didukung oleh analisis komparatif kerangka hukum Kazakhstan dan instrumen hukum internasional yang relevan. Studi ini menemukan bahwa pembuktian perdagangan manusia membutuhkan kombinasi langkah-langkah investigasi konvensional dan alat pembuktian yang dimediasi secara digital, termasuk catatan elektronik, tangkapan layar, data berbasis web, dan metadata. Namun, regulasi hukum terhadap bukti digital masih terfragmentasi, terutama terkait klasifikasi, penerimaan, pelestarian, dan penggunaan lintas batas dalam proses pidana. Analisis lebih lanjut menunjukkan bahwa kerangka hukum Kazakhstan memberikan pengakuan dasar terhadap dokumen elektronik tetapi belum menawarkan kerangka prosedural yang cukup jelas untuk menangani bukti digital dalam kasus perdagangan manusia. Artikel ini berkontribusi pada literatur dengan menghubungkan tantangan pembuktian bukti digital secara langsung dengan penuntutan tindak pidana perdagangan manusia dan dengan menyoroti perlunya kerangka hukum yang lebih koheren yang mengatur keaslian, integritas, dan penerimaan bukti. Temuan menunjukkan bahwa perlindungan prosedural yang lebih kuat, reformasi hukum, dan peningkatan kerja sama internasional diperlukan untuk meningkatkan efektivitas penuntutan perdagangan manusia.

Kata kunci: Kelayakan; bukti digital; perdagangan orang; Kazakhstan; transformasi prosedural..

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INTRODUCTION

Human trafficking is a complex and transnational crime that presents significant challenges in criminal procedure law, particularly concerning the proof and admissibility of electronic evidence. As the crime increasingly shifts to digital platforms, the traditional methods of investigation and evidence collection face limitations. The rapid development of digital tools, while offering new avenues for evidence gathering, also creates tensions with existing evidentiary frameworks that were not designed for such technologies. These challenges necessitate a rethinking of the legal standards governing digital evidence to ensure its effective integration into the prosecution of human trafficking cases.

Quite extensive levels of organised crime and other manifestations of the criminalisation of society constitute major threats at the national and international levels (Nyssanbekova et al., 2025; Serbina et al., 2022). All developed states are endeavouring to establish a functioning legal mechanism to ensure the prevention of such phenomena. One of the key elements in the system of countering human trafficking is the effective investigation and prosecution of such offences (Hazel, 2023). Accountability and fair justice can only be achieved in a state governed by the rule of law when proper and reliable evidence is presented to the court.

The complexity of proving such crimes is compounded by their cross-border nature, requiring comprehensive legal frameworks and international cooperation. In Kazakhstan, for instance, between 2002 and 2022, an average of 108 foreign victims of trafficking were identified annually by the International Organisation for Migration. This increase, driven by economic instability, social inequality, and weak institutional safeguards, highlights the urgency of improving the effectiveness of investigations and prosecutions. As human trafficking continues to rise in the absence of robust legal and institutional structures, the need to adopt innovative methods for proving such crimes becomes ever more critical.

Notably, human trafficking offences have always been complex in terms of the organisation of the evidentiary process, as such crimes are transnational and require a comprehensive approach from law enforcement agencies and states. Today, the principal problem in solving this type of crime is that the commission of human trafficking offences has migrated more to the Internet (Boskovic & Jankovic, 2023). For this reason, countermeasures, investigation, and evidence collection have also undergone drastic changes. Since technological advancement is very dynamic and constantly moves forward, the very process of proving these offences that exists in practice is not entirely effective and requires substantial changes.

The relevance of this study lies in the fact that, considering that human trafficking is one of the most challenging crimes to prove, there is a need to identify and investigate newer and more effective ways and methods of proving such crimes as human trafficking.

Many scholars have explored various aspects of human trafficking, with significant contributions across three main areas of research. First, studies on human trafficking as an organised and transnational crime, including Pajón and Walsh (2020) and Nastas (2024), have examined the phenomenon itself, highlighting its modern form as slavery, with profound social and economic consequences. These works also discuss the role of organised criminal groups in trafficking activities. However, despite extensive research, no universal evidentiary mechanism for addressing these crimes has been developed.

Second, in the realm of investigation and proving human trafficking offences, researchers have focused on the complexities involved in gathering and presenting evidence. These studies underline the need for comprehensive legal frameworks and investigative strategies to effectively counter trafficking. While many studies in this area provide valuable insights into the challenges of investigating trafficking, there remains a significant gap in developing standardised investigative methods.

Finally, there has been a growing body of research examining digital and online trafficking, with scholars like Vries and Radford (2022) exploring the specific characteristics of trafficking in the online environment. Their research highlights the importance of adopting an integrated, multi-system approach for detecting and preventing such offences, noting that the effectiveness of investigations depends on cooperation between various actors with diverse expertise. While technological advancements present new opportunities for evidence collection, the legal and procedural frameworks to handle digital evidence remain underdeveloped.

Although existing studies discuss human trafficking, investigative complexity, and the increasing use of online platforms in trafficking offences, few studies specifically examine the legal admissibility, procedural treatment, and evidentiary integration of digital evidence in such cases. In particular, the use of screen capture videos, web page authentication, metadata preservation, saved HTML code, and website replicas remains insufficiently analysed from the perspective of criminal procedure. This creates a significant research gap, since the effectiveness of prosecution in transnational trafficking cases increasingly depends not only on the collection of digital traces but also on their forensic reliability, chain of custody, and admissibility before the court.

This study introduces innovative digital tools for collecting and presenting evidence in human trafficking cases, such as screen capture videos, web page authentication, and metadata preservation. It offers new perspectives on traditional investigative methods and highlights the need for clear legal regulation of electronic evidence in criminal proceedings. This study integrates modern digital tools into the evidentiary framework for human trafficking investigations, alongside conventional investigative methods. It explores the use of digital evidence, such as screen capture videos, web page authentication, and metadata preservation, in the context of trafficking offences. By examining both traditional and digital methods, the study addresses the evolving role of technology in transnational crimes and provides insights into how law enforcement agencies can adapt their investigative practices to include these emerging tools.

The objectives of this study are to explore the methods of proving human trafficking offences, with a specific focus on the integration of digital tools in the evidentiary process. The key research questions addressed are:

(1) How do digital technologies, such as screen capture videos, web page authentication, and metadata preservation, contribute to proving human trafficking cases?

(2) What are the legal challenges related to the admissibility and regulation of electronic evidence in human trafficking investigations?

(3) How can traditional investigative methods be integrated with modern technological approaches to improve the effectiveness of investigations and prosecutions in transnational trafficking offences?

Taken together, these questions define the article's analytical focus on the intersection between human trafficking, digital evidence, and criminal procedural law. The study argues that

modern digital tools can strengthen the evidentiary basis of trafficking investigations only if they are supported by clear legal standards governing admissibility, forensic reliability, preservation, chain of custody, and cross-border exchange of electronic evidence.

This article argues that the current evidentiary framework for human trafficking cases remains normatively insufficient because it does not fully account for the procedural nature of digital evidence. It therefore proposes that effective proof in trafficking cases requires a hybrid evidentiary model combining conventional investigative methods with procedurally validated digital evidence, including screen capture videos, web page authentication, metadata preservation, saved HTML code, and website replicas.

RESEARCH METHOD

The study employs a normative/doctrinal legal research approach, focusing on the analysis of relevant legal texts and frameworks that address human trafficking, such as the Universal Declaration of Human Rights (1948); the Criminal Procedure Code of Kazakhstan (2014): provisions on evidence and investigative actions; the International Convention on the Elimination of All Forms of Racial Discrimination (1965), the International Covenant on Civil and Political Rights (1966); the International Covenant on Economic, Social and Cultural Rights (1966); the Convention on the Elimination of All Forms of Discrimination against Women New York, 18 December 1979 (1979), Convention on the Civil Aspects of International Child Abduction (1980), Convention on the Rights of the Child (1989); Declaration on ending violence against women (1993), Report of the Fourth World Conference on Women (1995), The Hague Ministerial Declaration on the European Guidelines on Effective Measures to Prevent and Combat Trafficking in Women for Sexual Exploitation (1997), Directive of the European Parliament and of the Council no. 2011/36/EU On preventing and combating trafficking in human beings and protecting its victims and replacing Council Framework Decision 2002/629/JHA (2011). Specifically, with the UN Convention against Transnational Organised Crime and its Protocols (2000) and the Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children, supplementing the United Nations Convention against Transnational Organised Crime (2000). The legislation of the Republic of Kazakhstan, which governs the use of electronic document management and establishes the basic concepts in this area, was also investigated, namely the Law of the Republic of Kazakhstan No. 370 "On Electronic Document and Electronic Digital Signature" (2003). This analysis provides a solid foundation for understanding the legal principles and standards that govern human trafficking and related investigative processes.

The study further applies a comparative approach, analysing the alignment of Kazakhstan's national legal framework with international norms. By comparing these legal provisions, the research highlights both the strengths and gaps in the domestic legal system, especially in the context of digital evidence used in human trafficking cases. This comparison reveals the challenges that law enforcement agencies face in adapting to evolving methods of trafficking and underscores the need for reforms to enhance legal effectiveness.

Additionally, the research delves into the conceptual analysis of human trafficking, exploring its definition and the legal mechanisms employed to prosecute such crimes. The evolving nature of human trafficking, particularly in the digital age, is examined, with a focus on the role of digital

technologies in the evidence-gathering process. This conceptual framework serves as the basis for assessing the adequacy of current legal tools and investigative methods used to tackle trafficking in persons.

In the final phase of the study, a critical legal analysis is conducted on the efficacy of conventional investigative techniques, such as interviews, surveillance, and searches, alongside the emerging digital methods. The study addresses the challenges associated with the admissibility of electronic evidence in court, considering the legal and procedural hurdles that complicate the prosecution of trafficking offences. This comprehensive legal analysis aims to identify key issues in the current system and propose improvements, particularly in relation to the use of digital evidence, to ensure that human trafficking cases are investigated and prosecuted effectively.

RESULTS

Normative structure of proof in human trafficking cases

Human trafficking is among the most legally demanding offences to investigate and prosecute, not because the facts of exploitation are difficult to observe but because the offence itself demands a particular structure of proof that goes considerably beyond establishing that a harmful event occurred. The normative framework governing what must be proven in trafficking cases draws from both international and domestic law, and the interaction between these sources shapes the evidentiary logic that investigators and prosecutors must follow throughout the proceedings.

At the international level, the foundational instrument is the Protocol to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children (2000), supplementing the UN Convention against Transnational Organised Crime. Article 3 of the Protocol defines trafficking in persons as the recruitment, transportation, transfer, harbouring, or receipt of persons, by means of threat, force, coercion, deception, abuse of power, or the giving of payments or benefits to achieve the consent of a person having control over another, for the purpose of exploitation. This tripartite definition – act, means, and purpose – establishes the structural minimum of what must be proven in any trafficking case and serves as the reference point for domestic criminal legislation in states that have ratified the Protocol, including the Republic of Kazakhstan.

Kazakhstan's criminal law incorporates this framework through Article 128 of the Criminal Code, which criminalises the purchase, sale, or other unlawful transaction involving a person, as well as recruitment, transportation, transfer, harbouring, or receipt carried out for the purpose of exploitation. The Criminal Procedural Code of Kazakhstan, in turn, establishes the general evidentiary standard applicable to all criminal offences, requiring that the guilt of a person be established through a complete, objective, and comprehensive examination of all circumstances of the case. Applied to trafficking specifically, this standard requires that investigators establish not only the physical acts constituting the offence but also the means employed and the exploitative purpose underlying the conduct. This multi-layered requirement reflects the doctrinal principle that trafficking is a relational offence – its unlawfulness does not lie in any single act taken in isolation but in the combination of conduct, coercive mechanism, and purpose (Olisah et al., 2024).

The elements that must be proven in a trafficking proceeding can be organised along the distinction between the objective and subjective sides of the *corpus delicti*. The objective side encompasses the factual circumstances of the offence: the specific acts performed by the accused,

the means used to recruit or control victims, the methods of transportation or transfer, the use of instruments or accomplices, and the physical setting in which exploitation occurred. These elements are in principle more amenable to evidence collection because they leave observable traces – digital communications, travel records, financial transactions, surveillance footage, testimony from victims or witnesses, and physical evidence recovered from searches. The challenge lies not in the absence of such traces, but in assembling them into a coherent factual account that satisfies the legal definition of the offence (Parlato, 2024).

The subjective side, by contrast, concerns the internal dimension of the offence and presents significantly greater evidentiary difficulty. Under the normative framework, it is not sufficient to prove that a person was recruited, transported, or received. It must also be proven that the accused acted with the specific purpose of exploitation – whether sexual exploitation, forced labour, organ removal, or other forms – and that this purpose was present at the time the act was committed. The motive and intent of the accused are therefore not merely background facts; they are constituent elements of the offence that must be affirmatively established. In practice, this is frequently the most contested element in trafficking prosecutions, because exploitative intent is rarely expressed openly and must instead be inferred from the totality of circumstances. Deceptive job advertisements, the confiscation of identity documents, conditions of debt bondage, restrictions on freedom of movement, and the systematic use of threats all serve as circumstantial indicators of exploitative purpose, but each must be documented and legally evaluated (Marsh, 2023).

A further dimension of the normative structure of proof concerns the position of the victim. The Palermo Protocol clarifies that the consent of a victim of trafficking is irrelevant where any of the specified means of coercion, deception, or abuse of power have been used. This provision has direct evidentiary implications: in proceedings where the defence relies on the apparent acquiescence of the victim, prosecutors must demonstrate that such consent was vitiated by the means employed. This shifts the evidentiary focus from the victim's subjective state to the objective conduct of the accused, reinforcing the relational character of the proof that is required. At the same time, the victim's testimony remains one of the most significant sources of evidence in trafficking cases, as it can directly illuminate the methods of control, the conditions of exploitation, and the identity of those responsible.

Since the corpus delicti has both an objective and a subjective side, the circumstances to be established in the investigation of trafficking in persons offences include the factual data presented in Table 1.

Table 1. Analytical Matrix of Circumstances to Be Proved in Human Trafficking Proceedings

Legal element / circumstance to be proved	Legal and doctrinal sources	Evidentiary implications	Possible evidence	Practical difficulties
Act of trafficking: purchase, sale or other unlawful transaction	Penal Code of the Republic of Kazakhstan, Art. 128; Palermo	The investigation must establish the external conduct forming the objective side	Victim and witness testimony; travel records; rental documents; border-crossing data;	Trafficking conduct is often divided among several participants,

involving a person; recruitment, transportation, transfer, harbouring or receipt of a person	Protocol, Art. 3;	of the offence and show that the act was not isolated but formed part of a trafficking scheme	transport tickets; online advertisements; correspondence; CCTV footage; financial transfers	locations and jurisdictions, which makes it difficult to reconstruct the full factual chain
Means used against the victim: deception, coercion, threat, abuse of vulnerability, debt bondage, confiscation of documents or restriction of movement	Palermo Protocol, Art. 3; Penal Code of Kazakhstan, Art. 128	These facts help distinguish trafficking from voluntary migration, ordinary labour relations or other related offences	False employment offers; online recruitment messages; confiscated documents; records of threats; testimony on living or working conditions; medical and psychological reports	Victims may formally appear to have consented, while coercion is often indirect, psychological, economic or dependent on the victim's vulnerable status
Exploitative purpose / subjective side of the offence	Penal Code of Kazakhstan, Art. 128; Palermo Protocol, Art. 3; CPC of Kazakhstan, Art. 113	The prosecution must prove not only the act of recruitment or movement, but also the offender's purpose of exploitation	Repeated recruitment patterns; correspondence between accomplices; distribution of profits; evidence of unpaid or forced labour; instructions to victims; conditions of sexual or labour exploitation	Exploitative intent is rarely expressed directly and usually has to be inferred from circumstantial evidence
Identity and procedural status of the victim	CPC of Kazakhstan, Art. 113; Convention on the Rights of the Child	The victim's age, vulnerability, dependence, migration status and relationship with the offender may affect the legal qualification of the offence and the scope of protection measures	Identity documents; birth records; migration records; social-service reports; psychological assessment; victim testimony	Victims may lack documents, fear retaliation or deportation, distrust law enforcement bodies, or change their testimony because of trauma

Identity, role and guilt of the offender and accomplices	CPC of Kazakhstan, Arts. 111–113; Penal Code of Kazakhstan, Art. 128	Evidence must individualise the role of each participant and establish whether the person acted as organiser, recruiter, transporter, controller, exploiter or beneficiary	Phone and device data; bank records; surveillance materials; social media accounts; witness testimony; accomplice testimony; operational-investigative materials later converted into procedural evidence	Trafficking networks often use intermediaries, false identities, anonymous accounts and transnational coordination
Nature and extent of harm caused by trafficking	CPC of Kazakhstan, Art. 113; Penal Code of Kazakhstan, Art. 128	The harm suffered by the victim is relevant for qualification, sentencing, compensation and the assessment of aggravating circumstances	Medical examination; psychological assessment; evidence of physical injury; financial-loss calculations; records of unpaid work; testimony on deprivation of liberty or exploitation	Harm may be psychological, long-term or non-material, and therefore difficult to quantify without expert assessment
Material instruments and physical traces of the offence	CPC of Kazakhstan, Arts. 118–120, 122–123 and 125	Physical and documentary evidence must be collected, secured and evaluated according to procedural rules on admissibility, reliability and sufficiency	Seized documents; contracts; phones; SIM cards; bank cards; transport documents; premises inspection records; search records; expert conclusions	Evidence may be excluded if it is collected without proper authorisation, documentation or chain-of-custody guarantees

Source: compiled by the author based on Nastas (2024), the Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children (2000), Article 128 of the Penal Code of the Republic of Kazakhstan, Articles 111–113, 118–120, 122–123, 125 and 563 of the Criminal Procedure Code of the Republic of Kazakhstan (2014), Law No. 370 “On Electronic Document and Electronic Digital Signature” (2003), de Vries and Radford (2022), de Vries and Farrell (2023), and Marsh (2023).

The practical difficulties associated with this evidentiary structure are well illustrated by official statistics from Kazakhstan. According to data from the Unified Register of Pre-Trial Investigations, the number of registered trafficking offences fluctuated between 103 and 179 cases

per year between 2020 and 2023, with 78 offences recorded in the first half of 2024 alone. These figures reflect not the absolute incidence of trafficking, but the rate at which law enforcement agencies are able to bring sufficient evidence to support formal registration. The discrepancy between estimated actual prevalence and recorded cases is widely acknowledged in the literature and attributable in part to the complexity of the evidentiary requirements. When investigators cannot establish all three constituent elements – act, means, and purpose – the case may be qualified differently or not pursued at all, contributing to the well-documented gap between trafficking as it occurs and trafficking as it is prosecuted (Coleman, 2023).

The relationship between the elements of the offence and the standard of proof thus produces a distinctive challenge: the legal definition of trafficking demands comprehensive, multi-source, and multi-stage evidence, while the operational conditions under which investigations are conducted – limited inter-agency cooperation, reluctance of victims to testify, and transnational jurisdictional complexity – frequently constrain the investigator's ability to collect it. This tension is not unique to Kazakhstan but is recognised in comparative legal analysis as a systemic feature of trafficking prosecutions across jurisdictions (Protocol to Prevent..., 2000).

Several patterns emerge from an analysis of the normative structure of proof. Objective elements, because they are grounded in observable conduct and produce physical or digital traces, are more readily connected to the investigative methods available to law enforcement. Subjective elements, particularly exploitative intent and motive, require inferential reasoning from assembled circumstantial evidence, and their proof is more vulnerable to challenge at trial. Trafficking cases, unlike many other criminal offences, also require what might be called relational proof: evidence that does not merely establish individual acts in isolation but demonstrates the link between recruitment, means of control, and ultimate exploitation. Finally, the purpose element – the requirement that the accused acted with the intention to exploit – consistently emerges as the most legally demanding and most contested element of the offence (Directive of the..., 2011).

What follows from this analysis is that trafficking offences require a more complex evidentiary model than is applicable to conventional crimes. The normative architecture of the offence, as established by international law and reproduced in national criminal legislation, demands that investigators and prosecutors construct a multi-dimensional evidentiary account that addresses each constituent element systematically. This structural requirement has direct implications for the choice of investigative methods, the organisation of the evidentiary record, and the standards applied to the admissibility of evidence. Understanding this normative structure is therefore the necessary starting point for any analysis of how evidence is collected, validated, and presented in human trafficking proceedings.

The statistical data on the number of registered trafficking offences in Kazakhstan indicate fluctuating detection rates, correlating with both the economic instability and the capacities of law enforcement. These fluctuations suggest that while the legal framework exists, its application is inconsistent and heavily influenced by external factors such as financial and infrastructural constraints. This points to the necessity for a more robust and stable legal infrastructure to effectively tackle human trafficking. Furthermore, the analysis of the evidentiary framework underlines the importance of a clear identification of the *modus operandi* of human trafficking, which is crucial for uncovering criminal activities and for the improvement of investigative techniques.

Evidentiary value of operational-investigative measures

The investigation of human trafficking offences depends not only on the range of operational measures available to law enforcement but also on the capacity of those measures to generate outputs that satisfy the legal requirements of admissible evidence. This distinction – between intelligence information that guides investigation and evidence that can be presented and evaluated in court – is foundational to understanding how traditional investigative methods function within the evidentiary framework of criminal proceedings. Kazakhstan's Criminal Procedural Code establishes that evidence consists of lawfully obtained factual data on the basis of which the investigator, prosecutor, and court determine the presence or absence of circumstances relevant to the criminal case. The procedural legality of the means by which information is obtained is therefore not a formality but a substantive condition of its evidentiary value (Convention against., 1984).

Interviewing occupies a central position among operational-investigative measures and is the method most frequently employed in the investigation of trafficking cases (Zhiyengaliyeva et al., 2024; Imankulov, 2022). It may be conducted overtly, in which the law enforcement officer discloses their identity and the nature of the inquiry, or covertly, in which the officer conceals both. Covert interviewing, sometimes described as encrypted interviewing, involves constructing conditions under which the interviewee has no reason to suspect the investigative character of the conversation. The legal distinction between these two forms is significant from an evidentiary standpoint. Information gathered through overt interviewing and properly recorded may be formalised as an explanation, a written statement, an affidavit, or a record of an oral statement from the interviewee. At the procedural level, the evidentiary function of interviewing is realised through interrogation conducted within the framework of criminal proceedings and recorded in the manner prescribed by the Criminal Procedural Code. The resulting interrogation record constitutes a procedurally recognised form of evidence and can be relied upon at trial (Convention for the..., 1949).

By contrast, information gathered through covert operational interviewing does not automatically acquire the status of evidence. It is formalised in a report or certificate prepared by the operative officer and addressed to the supervising authority. This document functions as operational intelligence; it may orient the investigation, justify further investigative acts, or identify persons of interest, but it does not in itself constitute admissible evidence of guilt. The transformation from intelligence to evidence requires a subsequent procedural act, typically a formal interrogation conducted in accordance with criminal procedure. This distinction is not merely technical. In trafficking cases, where victims and witnesses are frequently unwilling to repeat their accounts in a formal setting, the gap between what was disclosed during covert interviewing and what can ultimately be placed before the court is a persistent and structurally significant limitation of this method (Convention on the..., 1979).

The reluctance of victims to cooperate with law enforcement is one of the defining features of trafficking investigations and directly affects the evidentiary weight of interview-based methods. Victims may fear retaliation from traffickers, distrust law enforcement, face language barriers, or fear prosecution for immigration violations (Tsyryfa et al., 2024; Ait-Aoudia, 2025). International practice has responded to this structural problem by developing victim protection mechanisms,

including the granting of temporary residence status and exemption from criminal liability for offences committed as a consequence of trafficking. Kazakhstan's framework provides some basis for such protections, though their consistent application in practice remains uneven. Where victims decline to give evidence or later retract earlier statements, the evidential foundation of the case is significantly weakened, as victim testimony frequently constitutes the most direct and compelling evidence of the means of control and the purpose of exploitation (Convention on the Rights..., 1989).

Surveillance is the second major category of operational-investigative measures relevant to trafficking proceedings. It may be conducted in physical, electronic, or combined form, and its legal basis is established by departmental regulations governing the authorisation and conduct of surveillance operations. Physical surveillance involves directed, systematic, and continuous visual observation of individuals, premises, or vehicles; electronic surveillance extends this capacity through the monitoring of communications and digital activity. The primary investigative function of surveillance in trafficking cases is the identification of victims' locations and the mapping of criminal networks – information that is indispensable for planning detention operations and conducting searches (Orlovskiy et al., 2023; Barlybayev et al., 2024). Upon completion of a surveillance operation, the operative prepares a report recording all stages of the observed events. This report, like the operative interview certificate, functions primarily as intelligence. Its direct evidentiary value is limited unless the surveillance output is subsequently formalised through procedural acts – for example, by incorporating surveillance findings into an inspection report, using them to ground a search warrant, or introducing intercepted communications as documentary evidence through the procedures prescribed by the Criminal Procedural Code (de Vries and Radford, 2022).

The authorisation of surveillance and interception measures is subject to judicial control in Kazakhstan, reflecting the constitutional protection of privacy and correspondence. Surveillance conducted without proper authorisation, or documentation that does not comply with procedural requirements, risks exclusion as inadmissible evidence (Report of the Fourth..., 1995). This constraint is particularly relevant in trafficking investigations, where the covert monitoring of communications is often the most productive source of information about the organisation of criminal groups. The evidentiary value of intercepted communications depends entirely on whether they were obtained pursuant to a lawful judicial authorisation and whether the chain of custody is documented in a manner that allows the court to verify their integrity. Where these conditions are met, intercepted records can constitute powerful evidence of coordinated criminal activity; where they are not, the same material may be excluded altogether.

Searches of premises, vehicles, and persons are among the most direct sources of physical evidence in trafficking cases (Smanaliev et al., 2026; Kamilova, 2026). A properly conducted search, authorised by the investigating judge and documented in a search record signed by all participants, yields material that is directly admissible as evidence – seized documents, devices, financial records, or items associated with the control of victims (Universal Declaration..., 1948). The procedural requirements governing searches are strictly defined, and departures from them – failure to obtain judicial authorisation, absence of a witness, or incomplete documentation – can render the evidence obtained inadmissible. In trafficking investigations, searches are typically conducted after surveillance has identified locations of interest, and their results are therefore dependent on the quality and legality of the surveillance that preceded them (Hague Ministerial Declaration..., 1997).

The investigative experiment is a further measure of particular relevance to trafficking cases. It involves reproducing conditions covertly established in order to elicit conduct that demonstrates the unlawful intentions of suspects. It is authorised by a resolution approved by the head of the law enforcement agency, and its conduct and results must be documented in a procedural record. When properly authorised and documented, an investigative experiment can provide direct evidence of intent – one of the most difficult elements to establish in trafficking prosecutions. Its evidentiary value is, however, conditional on the legality of its conduct: evidence of entrapment, or of conditions that induced rather than merely revealed criminal intent, may be challenged as grounds for exclusion (International Covenant..., 1966).

Several patterns emerge from this analysis of operational-investigative measures. Victim testimony is structurally central to trafficking prosecutions but is inherently unstable due to trauma, fear, and the systematic pressure traffickers exercise over victims both before and during proceedings (Mcquigg, 2025; Mamatkulov, 2024). Surveillance is indispensable for locating victims and documenting criminal networks, but its evidentiary utility is contingent on judicial authorisation and rigorous documentation. Operational measures generally produce intelligence outputs that must be converted into procedural forms before they can function as evidence; this conversion process introduces points of potential failure that are particularly consequential in complex, multi-actor trafficking cases. Finally, traditional investigative methods, while foundational, face inherent limitations when confronted with trafficking schemes that are conducted predominantly through digital communications and online platforms (International Convention on the..., 1965).

The legal significance of these patterns is that success in proving a trafficking case does not follow automatically from the volume or intensity of investigative activity. It depends, rather, on whether each investigative measure was conducted on a lawful basis, documented in the prescribed form, and capable of surviving procedural scrutiny at trial. The evidentiary framework of criminal procedure functions as a filter that determines which outputs of investigation reach the court as admissible evidence and which remain confined to the intelligence domain. Understanding this filter and designing investigative strategies that produce outputs capable of passing through it is the practical core of effective prosecution in human trafficking cases. (Harnoncourt & Paredes, 2023).

In the investigation of human trafficking offences, it is necessary to distinguish between operational-investigative measures, criminal-procedural investigative actions and admissible evidence. Under the Law of the Republic of Kazakhstan “On Operational Investigations” (1994), operational-investigative measures primarily serve to identify trafficking schemes, locate victims and suspects, and establish communication channels, routes of movement and places of exploitation. However, the results of such measures have an intelligence-orientated character and do not automatically acquire the status of evidence in court. Their evidentiary significance arises only when the relevant information is introduced into criminal proceedings through the procedural forms established by the Criminal Procedure Code of the Republic of Kazakhstan. In this regard, Articles 111–113 of the Criminal Procedure Code (2014) are decisive, as they define evidence, exclude unlawfully obtained factual data and determine the circumstances that must be proved in a criminal case (Table 2).

Table 2. Classification of Investigative Measures and Their Evidentiary Status

Category	Legal basis in Kazakhstan	Main function in trafficking cases	Procedural output	Evidentiary status
Operational-investigative measures	Law “On Operational Investigations”, especially Art. 11	Detection of trafficking schemes, identification of victims, suspects, premises, communication channels and routes	Operational report, certificate, internal materials	Mainly intelligence; not automatically admissible as court evidence
Criminal-procedural investigative actions	Criminal Procedure Code, including provisions on evidence and investigative actions	Collection and verification of facts relevant to the criminal case	Interrogation protocol, inspection protocol, search protocol, seizure record, expert report	May become admissible evidence if lawfully obtained and properly documented
Covert investigative actions	Criminal Procedure Code, Chapter 30, including Arts. 231, 232 and 239	Secret documentation of communications, contacts, locations and coordinated conduct where open methods are insufficient	Protocols, audio/video records, photographs, electronic data, seized objects or documents	May be used in proof if authorised, recorded and evaluated according to CPC requirements
Evidence admissible in court	Criminal Procedure Code, Arts. 111–113 and related provisions on collection, verification and evaluation of evidence	Judicial establishment of the offence, guilt, motive, harm and other circumstances subject to proof	Procedurally recognised factual data	Admissible only if relevant, lawfully obtained, reliable and verifiable

Source: compiled by the author based on the Law of the Republic of Kazakhstan “On Operational Investigations”, Article 11; the Criminal Procedure Code of the Republic of Kazakhstan, Articles 111–113 and Chapter 30, including Articles 231, 232 and 239 (2014); Nastas (2024); de Vries and Radford (2022); de Vries and Farrell (2023).

The classification presented in Table 2 demonstrates that investigative information does not have the same legal status at all stages of criminal proceedings. Operational-investigative measures mainly perform an intelligence function: they help identify trafficking schemes, victims, suspects and relevant locations, but their results are not automatically admissible as evidence in court. By contrast, criminal-procedural investigative actions and covert investigative actions may generate admissible evidence only when they are conducted on a lawful basis, properly documented and capable of verification by the court. Therefore, in human trafficking proceedings, the decisive issue

is the procedural transformation of operational information into legally recognised, reliable and admissible evidence.

Legal gaps in the admissibility and preservation of digital evidence

The migration of human trafficking activity to digital platforms has fundamentally altered the evidentiary landscape of these proceedings. Recruitment through deceptive online job advertisements, coordination through encrypted messaging applications, exploitation broadcast through live-streaming services, and payment channelled through electronic financial systems have all become standard features of contemporary trafficking operations. As a consequence, the digital traces left by these activities — web pages, social media profiles, intercepted communications, server logs, and metadata — have become among the most probative sources of evidence available to investigators. The legal framework governing their collection, preservation, authentication, and admissibility, however, has not developed at the same pace as the criminal conduct it is meant to address, and the resulting regulatory gaps represent one of the most significant systemic weaknesses in the prosecution of trafficking offences (Convention on the..., 1980).

The foundational instrument governing electronic documents in Kazakhstan is the Law of the Republic of Kazakhstan No. 370 "On Electronic Document and Electronic Digital Signature" (2003). This law defines an electronic document as information recorded on an electronic medium and certified by means of an electronic digital signature, and it establishes the legal equivalence of a properly signed electronic document with its paper counterpart. While this framework provides a basis for the legal recognition of electronic records in civil and administrative contexts, its application to the evidentiary requirements of criminal proceedings is indirect and incomplete. The law does not address the forensic conditions under which electronic material becomes admissible as evidence of a criminal offence, nor does it establish standards for the authentication, integrity verification, or chain-of-custody documentation of electronic items obtained during criminal investigations. The Criminal Procedural Code of Kazakhstan provides general rules on the admissibility of evidence, requiring that evidence be obtained lawfully, that its source be identifiable, and that its content be verifiable, but it does not contain specific provisions defining electronic evidence as a distinct category, classifying its sources, or establishing the procedural conditions applicable to its collection and presentation (de Vries and Farrell, 2023; Sammut et al., 2016).

This normative gap has several concrete dimensions. The first and most fundamental concerns the classification of electronic evidence within the existing evidentiary typology. Criminal procedure law generally organises evidence into categories – physical evidence, documents, testimony, expert conclusions, and records of investigative acts – each of which carries specific admissibility requirements and procedural treatment. Electronic material does not map cleanly onto any of these categories. A screen-recorded video of a trafficking-related web page is neither a conventional document nor a physical exhibit in the traditional sense; a saved HTML file of a webpage containing recruitment content occupies an ambiguous position between a documentary record and a digital copy of a transient online object. In the absence of a statutory definition of electronic evidence and a classification of its sources, courts are left to make admissibility determinations on an ad hoc basis, producing inconsistency across proceedings and creating

vulnerability to evidentiary challenges that a clearer regulatory framework would foreclose (Marsh, 2023).

Screen capture video – the recording of investigative browsing sessions through dedicated software – illustrates this problem clearly. As an evidentiary method, it has the advantage of documenting the content of online resources at a specific point in time, including recruitment advertisements, contact details, and visual material associated with exploitation. Its admissibility, however, depends on the court's assessment of its authenticity, which in turn requires evidence that the recording was not altered after its creation, that it accurately represents what was displayed on the screen, and that the software and device used did not introduce artefacts or distortions. None of these conditions are addressed by existing Kazakhstani procedural law, and no standardised forensic protocol for the authentication of screen recordings has been officially adopted. The evidentiary value of such recordings therefore depends heavily on the expertise and documentation practices of the individual investigator, rather than on a legally prescribed framework that ensures uniform reliability (Declaration on Ending..., 1993).

Web page authentication presents analogous difficulties. Establishing that a web page accessed during an investigation is the same page that was used in the commission of the offence requires demonstrating the page's provenance – the server on which it was hosted, the date and time of its publication, and the continuity between the version accessed by investigators and any earlier version accessed by victims. Technical methods such as traceroute commands, proxy-based access recording, and server header analysis can provide indicators of provenance, but they do not constitute legally validated authentication unless they are conducted according to a procedurally recognised standard and documented in a form that the court can evaluate. The saved HTML code of a web page, while useful as a record of content, does not in itself demonstrate when the page was published or whether it has been modified since the time of the alleged offence. The metadata of a web page, including timestamps of last modification and server-side date fields, can supply some of this information, but the legal status of metadata as evidence is not established in Kazakhstani criminal procedure, and the tools used to capture it, such as browser extensions or header analysis utilities, are not officially certified for forensic purposes (Montenegro Sebastian, 2023) (Table 3).

Table 3. Procedural Status and Admissibility Risks of Digital Evidence in Human Trafficking Proceedings

Type of digital evidence / investigative measure	Evidentiary value	Procedural requirement	Risk of inadmissibility
Screenshots and screen capture videos	May record online recruitment, deceptive advertisements, threats, contacts and exploitation-related content	Date, time, URL, device details and method of capture should be recorded in a procedural protocol	May be challenged if authenticity, source or integrity cannot be verified
Saved HTML pages and website replicas	May preserve online content after deletion from the Internet	The method of saving, source URL, timestamp and technical tool used should be documented	A copy may not prove the original content, publication date or server-side data

Metadata	May establish creation time, modification history, device identifiers, geolocation or account links	Metadata should be extracted and preserved using reliable forensic methods	May be excluded if altered, incomplete or collected without a documented chain of custody
Social media and messenger data	May prove recruitment, control, threats, payment arrangements and communication between accomplices	The account, device and user must be linked to the accused or victim through lawful procedural means	May be challenged if account ownership or message integrity is uncertain
Digital devices and storage media	May contain communications, files, photos, location data and deleted materials	Devices must be lawfully seized, packaged, preserved and examined by a competent specialist	Improper handling may alter data and undermine reliability
Foreign platform or server data	May identify users, IP addresses, login history, payment records and deleted online activity	Data should be obtained through formal requests, mutual legal assistance or other lawful cooperation mechanisms	Delays, lack of certification or foreign procedural differences may weaken admissibility

Source: compiled by the author based on the Criminal Procedure Code of the Republic of Kazakhstan, Articles 111–113, 122–123, 125 and 239; the Law of the Republic of Kazakhstan “On Electronic Document and Electronic Digital Signature” (2003); de Vries and Radford (2022).

The creation of a complete website replica through programmes such as HTTrack illustrates a further dimension of the problem: the distinction between an original and a copy of electronic evidence. Traditional evidentiary doctrine generally requires the production of originals, with copies admitted only under defined conditions and subject to verification of correspondence with the original. For digital material, this distinction is technically complex. A website copy produced by an automated crawling programme reproduces the content of the site at the time of access but does not preserve the server-side infrastructure, the dynamic elements generated by user interaction, or the metadata associated with the original hosting environment (Costantino et al., 2021; Kengesbayeva et al., 2025). Whether such a copy satisfies the requirement of correspondence with the original, and under what conditions a court may rely on it in the absence of the original – for example, where the trafficking-related content has since been removed or the hosting server is located in a foreign jurisdiction – is not addressed by current Kazakhstani procedural law. This gap is particularly consequential in trafficking cases, where online content is frequently taken down by operators shortly after investigative attention is detected.

The cross-border dimension of digital evidence compounds all of these difficulties. Where a website is hosted on servers located in a foreign state, obtaining the server-side data necessary to authenticate the evidence, including access logs, user registration information, and payment records, requires mutual legal assistance. The existing frameworks for international cooperation, including bilateral agreements and multilateral instruments under the UN Convention against Transnational Organised Crime, facilitate the formal exchange of evidence but do not harmonise the forensic standards applicable to digital material. Evidence authenticated according to the

standards of one jurisdiction may not satisfy the admissibility requirements of another, and the absence of a common procedural framework for cross-border digital evidence handling creates gaps that traffickers routinely exploit by conducting operations across multiple jurisdictions.

Social media evidence, including profile content, private messages, and the internal identifiers used by platforms to track user activity, presents comparable difficulties. The attribution of a social media account to a specific individual requires corroborating technical evidence, and the legal mechanisms for compelling platforms, particularly those operating under foreign law, to provide identifying data are cumbersome and frequently slow relative to the tempo of trafficking investigations (International Covenant..., 1966).

Several patterns emerge from this analysis. The law does not clearly define electronic evidence as a distinct evidentiary category, leaving its treatment to judicial discretion. The sources from which electronic evidence may lawfully be obtained are not enumerated in the Criminal Procedural Code. The question of originals versus copies of digital material is normatively unresolved, creating vulnerability to admissibility challenges in cases where original content is no longer accessible. Cross-border collection and exchange of digital evidence remain fragmented, with no harmonised forensic standards applicable across jurisdictions. The legal meaning of these patterns is that without clear rules governing authenticity, integrity, chain of custody, and cross-border preservation, digital evidence remains structurally vulnerable to challenge at every stage of criminal proceedings. Modern trafficking prosecutions, which depend increasingly on digital traces for the proof of both objective and subjective elements of the offence, require a hybrid evidentiary model that integrates procedurally validated digital evidence into the existing framework – and this integration demands legislative reform rather than reliance on the improvised practices that currently substitute for it.

DISCUSSION

The relevance and significance of this topic are confirmed by the fact that many scientists are engaged in studying the issue of the process of proving crimes related to human trafficking. As in most studies, the present study examined the specific features of crimes related to human trafficking, as well as the features of investigation and proving such crimes. This study, as well as the study by Bjelland (2020), considered the international standards for combating human trafficking, as well as the concepts of investigation of such offences.

The present paper explored concrete ways of proving the offences of trafficking in human beings. Agreeing with Ward and Fouladvand (2021), it can be concluded that one of the crucial pieces of evidence in criminal proceedings to investigate human trafficking is expert testimony. Since human trafficking is an organised criminal activity, the most valuable information can be obtained from the testimony of victims, witnesses, and law enforcement experts.

The study found certain problematic aspects of investigating and proving all forms of trafficking in human beings. Using the study of Ambagtsheer (2020), some systemic problems in the process of proving this type of offence were identified. Sharing the researcher's opinion that the lack of specialised knowledge and rapid advances in technology complicate the search for evidence in the field of human trafficking, this study searched for ways to improve the procedure for conducting investigations and forming an evidentiary base.

As with most studies, the present study also examined the international legal mechanism for combating trafficking in human beings. The study examined regulations governing the basis of prevention of this type of crime, both at the international and national levels. In terms of the evidentiary process, we agree with the conclusions of Dandurand and Jahn (2020), while noting that to date there is no effective mechanism for investigating and proving human trafficking, as criminal activity in this area is evolving in step with the times and requires more effective countermeasures.

To form the specific features of investigating and proving offences in the sphere of human trafficking, the study investigated the process of committing such crimes, as well as the technologies by which criminals fulfil their criminal intentions. As in the study by Khamzin et al. (2022), law enforcement practice in the sphere of combating human trafficking was analysed. Foreign practices in the investigation of criminal offences in this area were explored, as well as legal mechanisms for gathering evidence of human trafficking.

The experience of foreign law enforcement agencies was also studied to examine the features of criminal proceedings to investigate human trafficking and the specifics of proving such offences. Based on the findings of the Hounmenou and Toepp (2023), difficulties in data collection during the investigation process were identified, such as the lack of a victim-centred approach, lack of inter-agency cooperation, and legislative and ethical gaps. The evidentiary process was found to be central to the investigation and its effectiveness directly influenced the preventive response to trafficking in persons as well.

For a better understanding of the evidentiary process, it was necessary to study the criminological features of human trafficking offences. Sharing the opinion of Langhorn (2021), it is the victim who plays a crucial role both during the commission of human trafficking offences and in the investigation and evidentiary process. Victimhood is an important factor in the commission of this type of offence, and therefore the evidentiary process should focus on the victim's testimony and the information the victim provides.

In analysing problematic aspects that arise in the evidentiary process, attention was drawn to the fact that victims of trafficking are often unwilling to assist in the investigation for various reasons. According to Nichols and Heil (2024), it is worth noting the significance of an integrated approach to the investigation of such offences. More attention should be paid to restorative justice and alternative ways of prosecution should be utilised. Only in this case, victims can provide more necessary information that will become an evidentiary basis.

Examining the legal provisions that regulate international rules and standards in the field of combating trafficking in human beings, as in the study by Fouladvand and Ward (2023), the present study focused on the significance of international regulation and the creation of international rules for the effective prosecution of such offences. The study pointed out that the issue of proving such offences is of an interdisciplinary nature, as it may involve specialists from multiple fields. As in the study by Chopra and Guharoy (2024), the significance of proper conduct with victims and witnesses, as well as the application of all measures to expedite the investigation of this type of crime is noted.

Using the findings of Dandurand (2024), this study examined the systemic problems that characterise the investigation of this category of criminal offences. It was found that in many cases human trafficking is not defined as a crime of international nature, but mistakenly qualified as an

internal problem, which adversely affects the investigation and the process of proving, in particular. Therefore, the complexity of proof does not always depend on the legal and regulatory framework but may depend on the actions and approaches of concrete law enforcement agencies.

The findings of this study show that the investigation of human trafficking offences should not be understood only as the collection of factual information. The central challenge is procedural: operational information, victim testimony, digital traces and other materials must be transformed into lawful, reliable, verifiable and admissible evidence. This is especially important in trafficking cases, where the offence includes both objective elements, such as recruitment, transportation and harbouring, and subjective elements, such as deception, coercion, abuse of vulnerability and exploitative purpose. Therefore, the evidentiary process must connect each element of the offence with a legally recognised form of proof.

The main contribution of this study is the proposed hybrid evidentiary framework for integrating digital evidence into criminal proceedings. This framework combines operational-investigative information, criminal-procedural investigative actions and digital-forensic evidence. Operational measures help identify trafficking schemes, victims, suspects, routes and communication channels, but they do not automatically constitute admissible evidence. Their results must be procedurally formalised through interrogation, inspection, search, seizure, expert examination, covert investigative actions or other measures provided by the Criminal Procedure Code. Digital evidence, including screenshots, screen capture videos, metadata, saved HTML files, social media messages, server logs and electronic payment records, should be treated as a separate evidentiary component requiring authentication, integrity preservation and chain-of-custody documentation.

This framework develops previous research by shifting the focus from a descriptive analysis of trafficking investigations to the procedural conditions under which information becomes evidence. Victim testimony remains important, but it should be corroborated by digital communications, financial records, travel data, surveillance materials and expert findings. At the same time, Kazakhstan's legal framework still lacks detailed rules on metadata preservation, web page authentication, forensic copying, platform data and cross-border preservation of electronic evidence. For this reason, effective prosecution requires a combined model in which traditional investigative actions are supported by digital-forensic tools and clear evidentiary standards. Such an approach can strengthen the proof of recruitment, control, exploitation and intent while reducing the risk that relevant digital materials will be excluded as inadmissible.

CONCLUSIONS

This study has explored the process of proving human trafficking offences, with a particular focus on integrating digital tools into the evidentiary process. The study finds that human trafficking, as a transnational crime, requires the use of both conventional and innovative methods to collect and present evidence. Conventional methods, such as interviews, surveillance, and searches, remain crucial in gathering evidence. However, the advent of digital technologies has introduced new opportunities for collecting and validating evidence. Screen capture videos, web page authentication, and metadata preservation are emerging as essential tools for documenting

and verifying the digital aspects of trafficking crimes, especially in an era where much of this criminal activity takes place online.

Despite the promising potential of digital evidence, the study reveals significant legal challenges. The lack of clear legal regulation regarding the admissibility and handling of electronic evidence in criminal proceedings hampers its effectiveness in human trafficking cases. Current international legal frameworks, while helpful, do not fully address the nuances of digital evidence, particularly when it comes to cross-border trafficking cases. This highlights the need for clearer regulations and procedural standards to ensure that digital evidence is effectively integrated into investigations and prosecutions.

Moreover, the study emphasises the importance of an integrated approach to human trafficking investigations, combining both traditional methods and modern digital tools. This hybrid approach can enhance the effectiveness of investigations and lead to more successful prosecutions. Law enforcement agencies must adapt to the evolving nature of transnational crimes by incorporating digital forensics expertise and ensuring that their legal frameworks are updated to include provisions for the collection, preservation, and presentation of digital evidence.

The research also points to a key challenge in international cooperation. The absence of standardised procedures for handling digital evidence across borders creates obstacles for effective collaboration between law enforcement agencies in different jurisdictions. To address this, international treaties and agreements must be updated to provide clearer guidelines for the collection and exchange of digital evidence in human trafficking cases.

In conclusion, this study demonstrates that while traditional investigative methods remain vital, the increasing role of digital technologies in human trafficking necessitates a comprehensive legal and procedural reform. Clear legal regulation, international cooperation, and the integration of modern digital tools into investigative practices are essential to improve the effectiveness of law enforcement in tackling human trafficking on a global scale. The findings underscore the need for a multidisciplinary approach to human trafficking investigations, involving not only law enforcement officers but also digital forensics experts, legal practitioners, and victim support organisations. By addressing these challenges, we can enhance the global response to human trafficking and ensure that justice is served for its victims.

The limitations of this study lie in the fact that the specific features of the evidentiary process and the methods and mechanisms for gathering evidence were considered in the context of offences related to trafficking in persons. Since the qualification of such offences may vary and trafficking in persons may be expressed in several forms, the issue of the evidentiary process for such offences was considered more broadly without consideration of particular types of crimes. Based on the findings of this study, the stated objectives were achieved, as the methods and specific features of the process of proving offences related to human trafficking were established and analysed.

REFERENCES

- Ait-Aoudia, B. M. (2025). Legal certainty in times of crises. *Statute Law Review*, 46(3), hmaf026. <https://doi.org/10.1093/slr/hmaf026>
- Ambagtsheer, F. (2020). Combating human trafficking for the purpose of organ removal: Lessons learned from prosecuting criminal cases. In J. Winterdyk & J. Jones (Eds.), *The Palgrave*

-
- International Handbook of Human Trafficking* (pp. 1733–1749). Cham: Palgrave Macmillan. https://doi.org/10.1007/978-3-319-63058-8_99
- Barlybayev, A., Sharipbay, A., Shakhmetova, G., & Zhumadillayeva, A. (2024). Development of a Flexible Information Security Risk Model Using Machine Learning Methods and Ontologies. *Applied Sciences (Switzerland)*, 14(21), 9858. <https://doi.org/10.3390/app14219858>
- Bjelland, H. F. (2020). Conceptions of success: Understandings of successful policing of human trafficking. *Policing: A Journal of Policy and Practice*, 14(3), 712–725. <https://doi.org/10.1093/police/pay073>
- Boskovic, M., & Jankovic, B. (2023). Forced migrations and the risk of human trafficking. In E. Alaverdov & M. W. Bari (Eds.), *Handbook of Research on the Regulation of the Modern Global Migration and Economic Crisis* (pp. 18–36). London: IGI Global. <https://doi.org/10.4018/978-1-6684-6334-5.ch002>
- Chopra, N., & Guharoy, M. R. (2024). Legal framework of human trafficking. *Journal of Scientific Research and Technology*, 2(5), 19–42. <https://doi.org/10.61808/jsrt102>
- Coleman, E. O. (2023). *Training considerations for the identification and investigation of human trafficking cases in law enforcement: A case study*. Lynchburg: Liberty University.
- Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment. (1984). <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-against-torture-and-other-cruel-inhuman-or-degrading>
- Convention for the Suppression of the Traffic in Persons and of the Exploitation of the Prostitution of Others. (1949). <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-suppression-traffic-persons-and-exploitation>
- Convention on the Civil Aspects of International Child Abduction. (1980). <https://www.hcch.net/en/instruments/conventions/full-text/?cid=24>
- Convention on the Elimination of All Forms of Discrimination against Women. (1979). <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-elimination-all-forms-discrimination-against-women>
- Convention on the Rights of the Child. (1989). <https://www.ohchr.org/en/instruments-mechanisms/instruments/convention-rights-child>
- Costantino, D., Brescia, E., Massenio, P. R., Serafino, P., Cascella, G. L., & Cupertino, F. (2021). SuMRAS: A new SPMSM parameter identification in cloud computing environment. In A. Luque & A. Nogueiras (Eds.), *Proceedings - 2021 IEEE Workshop on Electrical Machines Design, Control and Diagnosis, WEMDCD 2021* (pp. 297–302). Modena: Virtual. <https://doi.org/10.1109/WEMDCD51469.2021.9425641>
- Criminal Procedure Code of the Republic of Kazakhstan. (2014). Code of the Republic of Kazakhstan No. 231-V ZRK of July 4, 2014. <https://adilet.zan.kz/eng/docs/K1400000231>
- Dandurand, Y. (2024). Criminalizing human trafficking has not made a difference: A law enforcement failure. *Journal of Human Trafficking*, 10(2), 383–387. <https://doi.org/10.1080/23322705.2024.2303266>
- Dandurand, Y., & Jahn, J. (2020). The failing international legal framework on migrant smuggling and human trafficking. In J. Winterdyk & J. Jones (Eds.), *The Palgrave International Handbook of Human Trafficking* (pp. 783–800). Cham: Palgrave Macmillan. https://doi.org/10.1007/978-3-319-63058-8_47
- de Vries, I., & Farrell, A. (2023). Explaining the use of traditional law enforcement responses to human trafficking concerns in illicit massage businesses. *Justice Quarterly*, 40(3), 337–362. <https://doi.org/10.1080/07418825.2022.2051587>
- de Vries, I., & Radford, J. (2022). Identifying online risk markers of hard-to-observe crimes through semi-inductive triangulation: The case of human trafficking in the United States. *The British Journal of Criminology*, 62(3), 639–658. <https://doi.org/10.1093/bjc/azab077>
- Declaration on Ending Violence against Women. (1993). <https://www.ohchr.org/en/instruments-mechanisms/instruments/declaration-elimination-violence-against-women>
-

- Directive of the European Parliament and of the Council No. 2011/36/EU “On Preventing and Combating Trafficking in Human Beings and Protecting Its Victims, and Replacing Council Framework Decision 2002/629/JHA”. (2011). <https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A32011L0036>
- Fouladvand, S., & Ward, T. (2023). Criminal law categories as ideological constructs: The case of human trafficking. In D. G. Scott & J. Sim (Eds.), *Demystifying Power, Crime and Social Harm: The Work and Legacy of Steven Box* (pp. 299–324). Cham: Springer. https://doi.org/10.1007/978-3-031-46213-9_12
- Hague Ministerial Declaration on European Guidelines on Effective Measures to Prevent and Combat Trafficking in Women for the Purpose of Sexual Exploitation. (1997). https://osservatoriointerventitratta.it/wp-content/uploads/2018/03/Hague_decl.pdf
- Harnoncourt, J., & Paredes, M. (2023). Theorizing human trafficking and unfree labor. *Journal of Global South Studies*, 40(1), 173–212. <https://doi.org/10.1353/gss.2023.0012>
- Hazel, O. R. (2023). *Research work on human trafficking*. London: Floreat Publishers.
- Hounmenou, C., & Toepp, S. (2023). Exploring private investigation agencies' experience of collaboration with law enforcement in investigations of human trafficking cases. *Societies*, 13(2), 44. <https://doi.org/10.3390/soc13020044>
- Imankulov, T. (2022). The power of the prosecutor to initiate and investigate a criminal case as an effective means of consolidating evidence and combating protracted and poor-quality investigations. *Bulletin of the Jusup Balasagyn Kyrgyz National University*, 14(3), 323–338. <https://balasagynbulletin.com/en/journals/tom-14-3-2022/polnomochiye-prokurora-po-vozbuzhdyeniyu-i-rasslyedovaniyu-ugolovnogo-dyela-kak-effektivnoye-sryedstvo-zakryeplyeniya-dokazatylstyvennoy-informatsii-i-borby-s-zatyazhnyem-i-nyekachyestvyennym-slyedstviyem?>
- International Convention on the Elimination of All Forms of Racial Discrimination. (1965). <https://www.ohchr.org/en/instruments-mechanisms/instruments/international-convention-elimination-all-forms-racial>
- International Covenant on Civil and Political Rights. (1966). <https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-civil-and-political-rights>
- International Covenant on Economic, Social and Cultural Rights. (1966). <https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights>
- Kamilova, B. (2026). Comparative analysis of international and regional treaties on combating human trafficking in countries of Europe and Central Asia. *Scientific Journal of the National Academy of Internal Affairs*, 2026(1), 65–81. <https://doi.org/10.63341/naia-herald/1.2026.65>
- Kengesbayeva, S., Razaque, A., Smailov, N., Kalpeyeva, Z., & Kabievna, U. R. (2025). Optimizing Resource Allocation for 5G Internet-of-Things Networks Using Machine Learning Techniques. In *2025 IEEE 1st Secure and Trustworthy Cyberinfrastructure for IoT and Microelectronics, SATC 2025 - Conference Proceedings* (pp. 1–5). Dayton: Institute of Electrical and Electronics Engineers. <https://repository.satbayev.university/uploads/gxottvlwvbd30gk48f2dvj8pj.pdf>
- Khamzin, A., Buribayev, Y., & Sartayeva, K. (2022). Prevention of human trafficking crime: A view from Kazakhstan and Central Asian countries. *International Journal of Criminal Justice Sciences*, 17(1), 34–53.
- Langhorn, M. (2021). Understanding victimological factors when analysing organised crime characteristics: A human trafficking perspective. *Salus Journal*, 9(1), 51–65.

- Law of the Republic of Kazakhstan No. 370 "On Electronic Document and Electronic Digital Signature". (2003). https://adilet.zan.kz/rus/docs/Z030000370_
- Mamatkulov, A. (2024). Legal regulation of ensuring the safety of participants in criminal proceedings in the Kyrgyz republic. *Bulletin of the Jusup Balasagyn Kyrgyz National University*, 16(1), 256–262. [https://doi.org/10.58649/1694-8033-2024-1\(117\)-256-262](https://doi.org/10.58649/1694-8033-2024-1(117)-256-262)
- Marsh, D. J. (2023). Understanding and pursuing labor trafficking cases collaboratively. *Societies*, 13(4), 85. <https://doi.org/10.3390/soc13040085>
- Mcquigg, R. J. A. (2025). Criminalizing Coercive Control: Cross-Jurisdictional Lessons. *Statute Law Review*, 46(1), hmaf010. <https://doi.org/10.1093/slr/hmaf010>
- Montenegro Sebastian, J. (2023). Human trafficking. In P. Ali & M. M. Rogers (Eds.), *Gender-Based Violence: A Comprehensive Guide* (pp. 367–383). Cham: Springer. https://doi.org/10.1007/978-3-031-05640-6_27
- Nastas, A. (2024). *Specifics of human trafficking crime investigation*. Bucharest: Society of Juridical and Administrative Sciences.
- Nichols, A. J., & Heil, E. J. (2024). An integrated model of human trafficking response in the prosecution process: Restorative justice, therapeutic jurisprudence, survivor centered practice and anti-oppressive practice. *Crime, Law and Social Change*, 81(3), 231–253. <https://doi.org/10.1007/s10611-023-10114-w>
- Nyissanbekova, L. B., Baimagambetova, Z. M., Zhailau, Z., Abdilda, D., & Akhmetov, Y. B. (2025). International Legal Aspects of the Protection of Human Rights and Freedoms in the Development of the Integration Processes in the Post-Soviet Space. *International Annals of Criminology*, 63(3), 609–623. <https://doi.org/10.1017/cri.2025.10092>
- Olisah, S., Odooh, C., Efijemue, O., Obunadike, E., Onwuchekwa, J., Owolabi, O., & Obunadike, C. (2024). Unveiling global human trafficking trends: A comprehensive analysis. *Journal of Data Analysis and Information Processing*, 12(1), 49–75. <https://doi.org/10.4236/jdaip.2024.121004>
- Orlovskiy, R., Us, O., & Shevchuk, V. (2023). Human Trafficking Committed by Transnational Organised Groups: Criminal Law and Criminalistic Means Combating. *Pakistan Journal of Criminology*, 15(4), 119–136. https://openurl.ebsco.com/EPDB%3Agcd%3A15%3A17553919/detailv2?sid=ebsco%3Aplink%3Ascholar&id=ebsco%3Agcd%3A174000702&crl=c&link_origin=www.google.com
- Pajón, L., & Walsh, D. (2020). Proposing a theoretical framework for the criminal investigation of human trafficking crimes. *Policing: A Journal of Policy and Practice*, 14(2), 493–511. <https://doi.org/10.1093/police/pay031>
- Parlato, L. (2024). Trafficking in human beings: The ECHR and states' positive obligations. In F. Lo Piccolo, A. Mangiaracina, G. Paternostro & V. Todaro (Eds.), *In and Out: Rights of Migrants in the European Space* (pp. 197–209). Cham: Springer. https://doi.org/10.1007/978-3-031-51131-8_14
- Penal Code of the Republic of Kazakhstan. (2014). Code of the Republic of Kazakhstan No. 226-V ZRK of July 3, 2014. Article 128: Human trafficking. <https://adilet.zan.kz/eng/docs/K1400000226>
- Protocol to Prevent, Suppress and Punish Trafficking in Persons Especially Women and Children, supplementing the United Nations Convention against Transnational Organized Crime. (2000). <https://www.ohchr.org/en/instruments-mechanisms/instruments/protocol-prevent-suppress-and-punish-trafficking-persons>
- Report of the Fourth World Conference on Women. (1995). <https://www.un.org/womenwatch/daw/beijing/pdf/Beijing%20full%20report%20E.pdf>
- Sammut, G., Foster, J., & Andrisano-Ruggieri, R. (2016). Methods of psychological intervention. *Methods of Psychological Intervention: Yearbook of Idiographic Science*, 7, 1–11. <https://doi.org/10.1108/978-1-68123-781-720251002>

- Serbina, N. F., Tsyrf, L. A., & Sapsai, A. P. (2022). Understanding Colombia-Ukraine relations: modern developments and a global perspective. *Journal of Community Positive Practices*, 22(SI), 141–162. <https://doi.org/10.35782/JCPP.2022.SI.11>
- Smanaliev, K., Sabyrov, T., Aiazbekova, A., Kalygulova, A., & Kakeshov, B. (2026). Features of criminal proceedings regarding the interaction between probation services and national security agencies. *Law. Human. Environment*, 17(1), 190–213. <https://doi.org/10.31548/law/1.2026.190>
- Tsyrf, I., Serbina, N., Daineko, V., Rozhkova, M., & Bozhkov, A. (2024). Research on the legal principles of foreign policy identity in international relations. *Social and Legal Studies*, 7(2), 201–209. <https://doi.org/10.32518/sals2.2024.201>
- UN Convention against Transnational Organized Crime and the Protocols thereto. (2000). <https://www.unodc.org/unodc/en/organized-crime/intro/UNTOC.html>
- Universal Declaration of Human Rights. (1948). <https://www.ohchr.org/en/human-rights/universal-declaration/translations/english>
- Ward, T., & Fouladvand, S. (2021). Bodies of knowledge and robes of expertise: Expert evidence about drugs, gangs and human trafficking. *Criminal Law Review*, 2021(6), 442–460.
- Zhiyengaliyeva, A., Yerzhan, B., & Aliya, S. (2024). Regulation of the provocation of a crime in the criminal legislation of foreign countries: what should Kazakhstan take into account? *Scientific Herald of Uzhhorod University. Series Physics*, 55, 1405–1413. <https://doi.org/10.54919/physics/55.2024.140qo5>
- Law of the Republic of Kazakhstan “On Operational Investigations”. (1994). Law of the Republic of Kazakhstan No. 154-XIII of September 15, 1994. <https://adilet.zan.kz/eng/docs/Z940004000>