

Digitalising the Right to an Identity: Assessing the Efficacy of Community-Based Tech-Intermediaries in Executing Civil Status Reforms for Child Protection in Cameroon's Conflict-Affected Regions

Nkafor Germaine Fusih
University of Yaoundé II, Cameroon

Legal identity is a fundamental human right that enables children to access education, healthcare, social protection, and other essential services. However, conflict has significantly disrupted civil registration systems in Cameroon's Northwest and Southwest Regions, leaving many children without legal recognition. This article examines the role of community-based technology intermediaries in supporting digital civil registration reforms and advancing child protection in these conflict-affected areas. The study adopts a mixed-methods approach, combining doctrinal legal analysis with qualitative interviews and documentary review. It evaluates Cameroon's legal framework, including Law No. 2024/016 of 23 December 2024, Organising the Civil Registration System in Cameroon, alongside international and regional human rights instruments governing the right to legal identity. The findings reveal that community-based technology intermediaries play a critical role in facilitating digital birth registration, improving access to legal identity, and strengthening institutional resilience where conventional administrative systems have been disrupted. However, challenges such as digital exclusion, weak infrastructure, data privacy concerns, cybersecurity risks, and limited regulatory oversight continue to hinder effective implementation. The article contributes to existing scholarship by conceptualising community-based technology intermediaries as rights-enabling governance actors and proposing a Human-Centred Community Digital Identity Governance Model (HCDIGM) to strengthen digital civil registration. It concludes that achieving universal legal identity requires not only legislative reform and technological innovation but also inclusive, rights-based governance that prioritises children's best interests and institutional accountability.

Keywords: legal identity, digital civil registration, child protection, community-based technology intermediaries, digital governance, Cameroon

Introduction

The recognition of every child as a legal person begins with the establishment of a legal identity, primarily through birth registration and civil status documentation. Legal identity is not merely an administrative requirement; it constitutes the foundation upon which individuals access citizenship, education, healthcare,

Nkafor Germaine Fusih, PhD, Senior Lecturer, Department of English Law, Faculty of Laws and Political Science, University of Yaoundé II, Cameroon.

social protection, inheritance rights, and judicial protection. Without official recognition by the State, children risk becoming legally invisible, thereby experiencing uncertainty or exclusion from the enjoyment of fundamental rights¹.

The right to identity is therefore a fundamental principle within international human rights law. Article 7 of the Convention on the Rights of the Child (CRC) obliges States Parties to ensure that every child is registered immediately after birth and enjoys the right to a name and nationality, as well as the right to know and be cared for by his or her parents². Similarly, Article 6 of the African Charter on the Rights and Welfare of the Child (ACRWC) requires African States to establish effective birth registration mechanisms capable of guaranteeing children's legal existence and protection³. These provisions demonstrate that legal identity is both an autonomous right and an essential condition for the effective enjoyment of other rights.

The importance of legal identity has gained renewed global attention through the 2030 Agenda for Sustainable Development. Sustainable Development Goal (SDG) Target 16.9 commits States to provide legal identity for all, including birth registration, by 2030 (United Nations General Assembly, 2015). This recognition reflects the broader role of legal identity in promoting inclusive governance, access to public services, poverty reduction, migration management, financial inclusion, and access to justice (World Bank, 2022b). Consequently, many States have increasingly adopted digital technologies to modernise civil registration and vital statistics (CRVS) systems.

Digitalisation has transformed public administration by improving service accessibility, institutional coordination, record preservation and administrative efficiency. Within civil registration systems, electronic databases, mobile registration platforms, biometric technologies and digital record management have created new opportunities for expanding registration coverage, particularly among marginalised populations (WHO, (2021a). However, digital transformation also raises significant legal challenges concerning privacy protection, cybersecurity, data governance, digital exclusion and State accountability. These concerns become particularly acute in fragile and conflict-affected environments.

Armed conflict⁴ severely disrupts civil registration systems by destroying administrative infrastructure, displacing civil servants, restricting mobility and preventing families from accessing registration services. Children born in such contexts face increased risks of remaining undocumented, exposing them to statelessness,

¹ United Nations, Convention on the Rights of the Child (adopted 20 November 1989, entered into force 2 September 1990) 1577 UNTS 3, arts 7-8.

² Convention on the Rights of the Child (n 1) art 7.

³ African Charter on the Rights and Welfare of the Child (adopted 11 July 1990, entered into force 29 November 1999) OAU Doc CAB/LEG/24.9/49 (1990), art 6.

⁴ Armed conflict is defined by the ICTY Appeals Chamber in *Prosecutor v. Tadić*, Case No. IT-94-1-AR72, Jurisdiction Decision (2 October 1995), para. 70, as existing “whenever there is a resort to armed force between States or protracted armed violence between governmental authorities and organized armed groups or between such groups within a State” establishing two categories: international armed conflict (IAC), governed by Common Article 2 of the Geneva Conventions (1949), which is triggered by any resort to armed force between States regardless of intensity or duration, and non-international armed conflict (NIAC), governed by Common Article 3 and Additional Protocol II (1977), which requires a higher threshold of sustained intensity [“protracted” violence, excluding mere riots or internal disturbances per AP II Art. 1(2)] and a minimum level of organisation among the non-state armed group involved. [Sivakumaran, S. (2012). *The Law of Non-International Armed Conflict*. Oxford University Press. Pp. 155-211]. Thus, the situation in the conflicted affected areas in Cameroon can be classified as a NIAC, Common Article 3 and, arguably, Additional Protocol II (Cameroon is a party to AP II) apply, obligating both government forces and organised separatist groups to observe minimum humanitarian protections, prohibition of attacks on civilians, torture, hostage-taking, etc., regardless of the underlying legality of either side's cause. The classification is a legal question independent of whether one views the separatists' political goals as legitimate.

trafficking, child labour, forced recruitment and exclusion from essential services (UNHCR, 2017). The breakdown of civil registration is therefore not merely an administrative failure but a serious child protection and human rights concern.

Cameroon illustrates these challenges. Since 2016, the armed conflict affecting the Northwest and Southwest Regions has significantly affected public administration, including civil registration services (Bang & Balgah, 2022; Pommerolle & Heungoup, 2017). Several registration centres have been damaged or rendered inaccessible, while insecurity has limited the movement of both officials and communities. As a result, many children born in conflict-affected areas remain outside the formal civil registration system, depriving them of legally recognized identities⁵.

In response to longstanding weaknesses within the civil registration framework, Cameroon adopted Law No. 2024/016 of 23 December 2024⁶, introducing significant reforms aimed at modernising civil status management through digitalisation⁷. The law seeks to address challenges associated with traditional paper-based systems, including loss of records, administrative delays, fragmented databases and limited accessibility. Nevertheless, the effectiveness of digital civil registration depends not only on technological infrastructure but also on actors capable of connecting vulnerable communities with formal administrative institutions.

Community-based technology intermediaries have consequently become important actors in implementing digital civil registration reforms (Lambert, 2025). These actors, including community health workers, teachers, municipal focal persons, humanitarian organisations and locally trained registration agents, operate as bridges between citizens and digital identity systems. They facilitate birth declarations, support electronic data transmission, assist families with administrative procedures and promote access to legal identity, particularly in areas where State institutions have limited presence.

Despite their growing practical importance, legal scholarship has paid limited attention to the institutional and legal role of community intermediaries in implementing digital civil registration within conflict settings. Existing studies largely focus on digital identity technologies, e-government reforms or child protection separately, leaving insufficient examination of how community actors influence the effectiveness, legitimacy and rights-compliance of digital identity systems.

Against this background, this article critically examines the effectiveness of community-based technology intermediaries in implementing digital civil registration reforms for child protection in Cameroon's conflict-affected Northwest and Southwest Regions. Through a doctrinal and empirical approach, it analyses the relationship between international child rights obligations, Cameroon's evolving civil registration framework and the

⁵ Cameroon, Law No. 2024/016 of 23 December 2024 to Organise the Civil Registration System, Official Gazette of the Republic of Cameroon.

⁶ Cameroon's civil status framework has evolved through several legislative phases: Law No. 68-LF-2 (11 June 1968) established the original post-reunification system, later replaced by Ordinance No. 81-02 (29 June 1981), and subsequently amended by Law No. 2011/011 (6 May 2011). Institutionally, although the National Civil Status Bureau (BUNEC) was mandated in 2011, it was not formally created until a 2013 presidential decree set out its organisation and functioning, and it did not become operational until 2016, with a fully comprehensive national civil status record still lacking as of 2023. Reform efforts began earlier, with the 2007 Civil Status Rehabilitation Programme (PRE2C), Cameroon's 2010 accession to the African Programme on Accelerated Improvement of Civil Registration and Vital Statistics (APAI-CRVS), and a 2018-2022 strategic rehabilitation plan. A steering committee to oversee PRE2C's progress was established via Prime Ministerial Order No. 019/CAB/PM (24 February 2015), chaired by the Minister of Decentralisation and Local Development, followed by a 2019-2023 master plan for computerising the national civil registry. Together, these initiatives culminated in the 2024 law reforming Cameroon's civil status registration system.

⁷ Supra, footnote 5.

realities of digital governance in insecure environments. It argues that while digitalisation provides an essential foundation for strengthening legal identity systems, meaningful and sustainable implementation requires trusted community participation, strong data protection safeguards and rights-based institutional accountability.

This study adopts a mixed-methods research design combining doctrinal legal research with empirical qualitative and quantitative approaches to examining the effectiveness of community-based technology intermediaries in implementing digital civil registration reforms for child protection in Cameroon. The multidisciplinary nature of the research problem, which involves law, digital governance, institutional capacity and child protection, requires an approach that extends beyond purely textual legal analysis.

The doctrinal component examines the legal framework governing legal identity and civil registration through analysis of constitutional provisions, domestic legislation, international treaties, regional instruments, judicial interpretations and policy documents. This enables the study to assess the extent to which Cameroon's legal framework complies with international and regional obligations concerning children's right to identity.

The empirical component investigates how these legal obligations operate in practice, particularly within conflict-affected communities where institutional realities may differ from legislative expectations. Through interviews with relevant stakeholders and analysis of registration data, the study evaluates the practical contribution of community-based technology intermediaries in facilitating birth registration.

Conceptualising Legal Identity, Digital Identity and Civil Registration

The increasing digital transformation of public administration has generated significant debates regarding the meaning and legal implications of identity within modern governance systems. Although legal identity, digital identity and civil registration are often used interchangeably, they represent distinct but interconnected concepts (Manby, 2021). Understanding their relationship is essential for evaluating Cameroon's civil registration reforms and the role of community-based technology intermediaries in conflict-affected regions (World Bank, 2022c).

Legal Identity

Legal identity refers to the official recognition of an individual as a person before the law through mechanisms established and recognised by the State. It represents the legal relationship between individuals and public authorities, enabling individuals to acquire rights, perform obligations and access legal protection⁸. Unlike social identity, which may derive from cultural, ethnic or familial affiliations, legal identity is created through formal legal recognition, usually evidenced through birth registration, nationality records, identity documents or other legally recognised instruments (United Nations, 2020). It therefore functions both as a legal status and as an institutional process through which individuals become recognised rights holders.

From a human rights perspective, legal identity performs several essential functions. Firstly, it establishes legal personality by ensuring recognition before the law. Secondly, it enables access to fundamental services, including education, healthcare, social protection and judicial remedies. Thirdly, it assists States in delivering public services while promoting accountability and preventing exclusion (UNICEF, 2019). This explains why international human rights institutions increasingly consider legal identity an enabling right whose absence undermines the enjoyment of other fundamental rights.

⁸ United Nations Statistics Division, UN Legal Identity Agenda. Retrieved from <https://unstats.un.org/legal-identity-agenda/>.

Digital Identity

Digital identity, in contrast, refers to the electronic representation and verification of an individual's legally recognised identity through technological systems. It does not replace legal identity but provides the infrastructure through which identities can be authenticated, managed and exchanged across administrative platforms (OECD, 2023). Modern digital identity systems may incorporate biometric information, demographic data, electronic records and interoperable databases to improve the efficiency of public administration.

The distinction between legal and digital identity has important legal implications. Legal identity derives its authority from law, whereas digital identity depends on technological systems for its operation. Consequently, technology alone cannot create legal personality unless recognised by legislation. The validity and evidential value of electronic registration records therefore depend upon statutory recognition, regulatory oversight and compliance with legal standards.

Civil Registration

Civil registration represents the institutional mechanism through which legal identity is established and maintained. It involves the continuous, permanent and compulsory recording of vital events such as births, deaths, marriages and adoptions in accordance with domestic legal requirements (WHO, 2021b). Beyond its administrative function of generating demographic information, civil registration serves a constitutional and human rights purpose by providing individuals with official proof of existence and facilitating access to legal protection.

Traditional civil registration systems in many developing countries have historically relied on paper-based procedures. Although these systems provided formal documentation, they were often affected by delays, fragmented record management, administrative inefficiency and vulnerability to destruction or loss. These weaknesses become particularly serious during armed conflicts, where insecurity, displacement and the destruction of administrative infrastructure may prevent children from obtaining official recognition (UNHCR, 2017).

Digital civil registration has emerged as a response to these challenges. Through electronic databases, mobile registration platforms and interconnected information systems, digital registration can improve accessibility, preserve records and enhance administrative efficiency. It enables faster processing, secure storage of information and improved coordination between institutions responsible for delivering public services.

However, digitalisation also creates significant legal challenges. The collection and processing of personal data raise concerns relating to privacy, cybersecurity, informed consent and accountability. Furthermore, vulnerable communities, particularly those in remote or conflict-affected areas, may face barriers arising from limited connectivity, inadequate infrastructure and insufficient digital literacy. Without appropriate safeguards, digital reforms may deepen existing inequalities rather than promote inclusion.

Consequently, contemporary approaches increasingly support a human-centred model of digital governance, where technological innovation operates within a framework of fundamental rights protection. For the purposes of this study, legal identity is understood as the substantive right protected under international and regional law; civil registration as the institutional mechanism through which that right is realised; and digital identity as the technological framework supporting modern registration systems. In conflict-affected settings, however, these systems depend upon trusted community actors who connect vulnerable populations with formal institutions. The interaction between law, technology and community participation therefore forms the central analytical focus of this research.

International and Regional Legal Framework Governing the Right to Legal Identity and Child Protection

The Right to Legal Identity under International Human Rights Law

The right to legal identity has progressively evolved from a technical issue of civil administration into a fundamental human right recognised within contemporary international law. Legal identity provides the basis upon which individuals obtain formal recognition by the State and participate effectively within legal, political and social systems (World Bank, 2022c). For children, this recognition is primarily established through birth registration, which serves as the official record of existence and the foundation for the enjoyment of several interconnected rights, including nationality, education, healthcare, inheritance, family relations and access to justice. Consequently, the absence of legal identity creates a condition of legal invisibility, exposing children to exclusion, discrimination, statelessness and increased vulnerability to exploitation⁹.

The international legal foundation of children's right to legal identity is primarily established under the Convention on the Rights of the Child (CRC). Articles 7 and 8 of the Convention recognise the child's right to immediate birth registration, a name, nationality and preservation of identity¹⁰. Article 7 requires States Parties to ensure that every child is registered immediately after birth and has the right to acquire a nationality, while Article 8 obliges States to respect and preserve the child's identity, including nationality, name and family relations. These provisions impose positive obligations upon States, requiring not only the adoption of appropriate legal frameworks but also the establishment of accessible administrative structures capable of ensuring universal registration.

The obligations arising from the CRC therefore extend beyond formal recognition of birth registration as a legal right. States must ensure that registration systems are practical, accessible and inclusive, particularly for vulnerable groups such as children living in rural communities, displaced populations and those affected by armed conflict. The effectiveness of the right to identity depends not merely on the existence of legislation but on the capacity of States to remove administrative, geographical and social barriers preventing children from obtaining legal recognition.

The Committee on the Rights of the Child has consistently emphasised this practical dimension of birth registration. According to the Committee, registration should not be understood as a mere statistical process designed to improve population data collection. Rather, it is a fundamental rights mechanism through which children acquire recognition before the law and gain access to other rights guaranteed under international law. Failure to establish effective registration mechanisms therefore has consequences beyond administrative inefficiency, as it may prevent children from accessing education, healthcare, nationality and legal protection.

The right to legal identity is further reinforced under the International Covenant on Civil and Political Rights (ICCPR). Article 24(2) provides that every child shall be registered immediately after birth and shall have a name, while Article 24(3) recognises the child's right to acquire a nationality. These obligations complement the broader principle of recognition before the law contained in Article 16 of the ICCPR, which provides that everyone has the right to recognition everywhere as a person before the law. Legal identity

⁹ United Nations, Human Rights Committee, General Comment No. 17: Rights of the Child (Art. 24), UN Doc HRI/GEN/1/Rev. 9 (Vol. I) (1989) para 7.

¹⁰ United Nations, Convention on the Rights of the Child (n 1) arts 7-8.

therefore represents an essential foundation for the exercise of civil and political rights, as individuals without official recognition often encounter significant barriers in accessing legal remedies and State protection.

The international significance of legal identity has also expanded beyond traditional human rights discourse into global development policy. Sustainable Development Goal (SDG) Target 16.9 commits States to provide legal identity for all, including birth registration, by 2030. This objective reflects an understanding that civil registration contributes not only to child protection but also to effective governance, social inclusion, poverty reduction, migration management and access to public services (Manby, 2021). Legal identity has therefore become recognised as an essential component of sustainable development and accountable public administration.

Technological transformation has increasingly influenced the manner in which States fulfil these obligations. Digital Civil Registration and Vital Statistics (CRVS) systems, including electronic databases, mobile registration platforms and interconnected government information systems, offer significant opportunities for expanding registration coverage and improving administrative efficiency (UNICEF/WHO, 2022). Digital systems can reduce delays, prevent loss of records, facilitate data management and extend registration services to populations living in remote or inaccessible areas (Gelb & Metz, 2018, pp. 93-132). For conflict-affected communities, digitalisation may provide mechanisms for preserving registration information even where traditional administrative structures have been disrupted.

However, international human rights law requires that digital transformation remains consistent with fundamental rights principles. The introduction of digital identity systems raises concerns relating to privacy, data protection, cybersecurity, discrimination and exclusion of individuals lacking digital access or technological literacy (Gelb & Metz, 2018, pp. 133-172). Therefore, technological innovation cannot be viewed as a substitute for legal safeguards. States remain responsible for ensuring that digital registration systems are transparent, secure, accessible and designed in a manner that protects the dignity and rights of children.

These obligations become particularly significant in situations of armed conflict. Conflict frequently destroys civil registration infrastructure, displaces administrative personnel and restricts movement between communities and government institutions (UNHCR, 2017). Children born in conflict environments consequently face an increased risk of remaining undocumented, which may expose them to trafficking, child labour, forced recruitment, early marriage and statelessness. International law does not suspend children's right to identity during emergencies. Rather, States are required to adopt alternative mechanisms capable of maintaining registration services despite insecurity. The obligation is therefore one requiring effective results, not merely administrative efforts.

Accordingly, international human rights law establishes several principles relevant to evaluating digital civil registration reforms. Firstly, legal identity constitutes an autonomous human right rather than a discretionary administrative service. Secondly, States have positive obligations to create accessible and inclusive registration systems regardless of geographical or security challenges. Thirdly, digital technologies may strengthen civil registration systems but must operate within a human rights framework that guarantees privacy, accountability and equality. These principles provide the international benchmark for assessing Cameroon's civil registration reforms and the role of community-based technology intermediaries.

Regional Protection of the Right to Legal Identity under the African Human Rights System

The African regional human rights framework has significantly strengthened the protection of children's right to legal identity by adapting international principles to the specific realities of the continent (African

Union, 2015). African States have historically faced particular challenges affecting civil registration, including weak administrative structures, armed conflicts, displacement, statelessness and limited access to public institutions. Consequently, regional human rights instruments place legal identity at the centre of child protection, social inclusion and effective governance.

The principal regional instrument protecting children's identity rights is the African Charter on the Rights and Welfare of the Child (ACRWC). Article 6 of the Charter expressly guarantees every child's right to a name, immediate birth registration and acquisition of nationality. This provision reflects the recognition by African States that birth registration is not simply an administrative procedure but a fundamental legal safeguard against exclusion and vulnerability. Through registration, children obtain formal recognition as members of society and acquire the legal status necessary for exercising their rights.

The African Committee of Experts on the Rights and Welfare of the Child (ACERWC) has played an important role in clarifying the scope of Article 6. In General Comment No. 2 on Article 6, the Committee emphasised that birth registration is the gateway through which children access numerous other rights¹¹. It further recognised that States must maintain accessible registration systems even during emergencies, humanitarian crises and situations of internal displacement. This interpretation is particularly relevant to conflict-affected environments where conventional administrative systems may become ineffective.

The regional approach therefore supports decentralised and flexible mechanisms capable of ensuring continuity of registration services. The Committee has encouraged States to strengthen community participation and adopt innovative approaches where traditional registration structures are insufficient (Setel et al., 2007). Although the African Charter does not expressly require digital registration systems, its emphasis on accessibility and effective implementation provides legal support for technological solutions capable of improving registration coverage.

The protection of legal identity is also indirectly supported by the African Charter on Human and Peoples' Rights. Although the Charter does not contain an express right to birth registration, principles of equality before the law under Article 3 and respect for human dignity under Article 5 reinforce the obligation of States to establish systems through which individuals can obtain legal recognition. Without official documentation, individuals may be unable to effectively enjoy rights guaranteed under the Charter.

At the continental policy level, the African Union has increasingly linked legal identity with digital transformation. The Digital Transformation Strategy for Africa (2020-2030) identifies secure digital identity systems as essential tools for improving governance, economic inclusion and public service delivery (African Union, 2020). The Strategy encourages Member States to modernise administrative systems through digital technologies while ensuring compliance with privacy, cybersecurity and human rights standards. Similarly, Agenda 2063 recognises technology-enabled governance as an important pathway towards inclusive development and stronger institutions (African Union, 2015).

These regional commitments are particularly relevant to Cameroon. By ratifying the African Charter on the Rights and Welfare of the Child in 1997¹², Cameroon assumed legal obligations to ensure effective protection of children's identity rights. The adoption of Law No. 2024/016 of 23 December 2024 on the organisation of the civil registration system represents a significant attempt to modernise the national

¹¹ African Committee of Experts on the Rights and Welfare of the Child, General Comment No. 2 on Article 6 of the African Charter on the Rights and Welfare of the Child: The Right to a Name, Birth Registration and Nationality (2014).

¹² Cameroon ratified the African Charter on the Rights and Welfare of the Child on 5 September 1997.

framework through digitalisation and improved institutional coordination. However, the fulfilment of regional obligations cannot be assessed solely through legislative reform. It depends on the ability of the State to ensure practical access to registration services, especially for children living in conflict-affected areas.

Within this context, community-based technology intermediaries become essential actors in translating legal obligations into practical outcomes. By assisting families, facilitating electronic registration procedures and connecting communities with State institutions, these actors contribute to the implementation of both international and regional obligations concerning children's right to legal identity. Their involvement demonstrates that effective digital civil registration requires not only technological infrastructure but also community participation, institutional accountability and a rights-based approach to governance.

The African regional framework therefore establishes that legal identity is a legally enforceable right requiring proactive State intervention. It further confirms that digitalisation may provide an effective means of strengthening civil registration systems, provided that technological reforms remain inclusive, accessible and consistent with children's fundamental rights.

Domestic Legal Framework Governing Civil Registration and the Right to Legal Identity in Cameroon

The protection of legal identity in Cameroon is based on constitutional principles, statutory legislation, international treaty obligations and administrative regulations governing civil registration. The country's civil registration framework has undergone significant transformation, particularly with the enactment of Law No. 2024/016 of 23 December 2024 on the Organisation of the Civil Registration System. This reform represents the most comprehensive restructuring of the system since Ordinance No. 81/002 of 29 June 1981 and reflects Cameroon's attempt to modernise civil registration through digital technologies while strengthening children's right to legal identity¹³.

Constitutional protection of legal identity and children's rights. Although the Constitution of Cameroon does not expressly recognise legal identity as a standalone fundamental right, it provides the constitutional foundation for its protection. The Preamble to the Constitution, which has constitutional value, guarantees equality before the law, human dignity and protection of the family¹⁴. These principles imply the State's obligation to establish institutions capable of recognising individuals as legal persons entitled to equal protection.

The constitutional protection of legal identity is further reinforced by Cameroon's monist approach to international law. Article 45 of the Constitution provides that duly ratified and published international treaties prevail over conflicting domestic legislation¹⁵. Consequently, instruments such as the Convention on the Rights of the Child (CRC) and the African Charter on the Rights and Welfare of the Child (ACRWC) form part of Cameroon's domestic legal order and impose obligations concerning birth registration, nationality and preservation of children's identity.

However, constitutional recognition alone does not guarantee effective enjoyment of legal identity. The realisation of these rights depends on functional administrative institutions capable of translating legal obligations into practice. This challenge is particularly evident in conflict-affected regions, where insecurity and institutional disruption limit access to civil registration services.

¹³ Cameroon ratified the African Charter on the Rights and Welfare of the Child on 5 September 1997.

¹⁴ Law No. 96/06 of 18th January 1996, The Constitution of the Republic of Cameroon, amending the 1972 constitution, as revised by Law No. 2008/001 of 14 April 2008, Preamble.

¹⁵ Ibid, art 45.

Evolution of civil registration legislation in Cameroon. For more than four decades, civil registration in Cameroon was primarily governed by Ordinance No. 81/002 of 29 June 1981¹⁶, which established rules relating to births, deaths, marriages and other civil status events. The Ordinance created a unified system based largely on paper registers maintained by municipal authorities and other authorised actors.

Although the 1981 framework provided an important foundation for civil registration, it gradually became inadequate in addressing contemporary administrative challenges. Adopted before the emergence of digital governance, the legislation contained no provisions relating to electronic registration, digital preservation of records, cybersecurity, electronic authentication or institutional interoperability. The dependence on physical documentation also created significant vulnerabilities, particularly during armed conflicts, where registers could be destroyed, lost or rendered inaccessible.

The crisis affecting Cameroon's Northwest and Southwest Regions exposed these weaknesses. Insecurity disrupted the functioning of municipal civil registration centres, displaced public officials and restricted community access to administrative services. As a result, many births remained unregistered, while existing records became difficult or impossible to access (Fombad, 2018). These challenges demonstrated the limitations of traditional paper-based systems and the need for a more resilient civil registration framework capable of guaranteeing continuity of legal identity during periods of instability.

Law No. 2024/016¹⁷: A new era of digital civil registration. Recognising the weaknesses of the previous framework, Cameroon enacted Law No. 2024/016 of 23 December 2024, introducing a comprehensive reform of the civil registration system through digitalisation. The legislation adopts a technology-oriented approach aimed at modernising administrative procedures, improving accessibility and strengthening institutional resilience.

A major innovation of the law is the recognition of electronic civil registration. By permitting the creation, storage and management of civil status records through digital platforms, the reform reduces dependence on vulnerable paper-based registers. Electronic systems allow authorised institutions to access records more efficiently while preserving digital archives capable of surviving physical destruction or loss of administrative documents.

The law also promotes administrative decentralisation by expanding participation in civil registration processes beyond traditional municipal structures. This approach is particularly significant in conflict-affected areas where conventional registration centres may be inaccessible or non-functional. By facilitating broader institutional involvement, the reform creates opportunities for community actors to support registration processes while remaining connected to official government systems.

Furthermore, digitalisation enhances administrative efficiency by reducing delays, improving coordination between institutions and strengthening demographic data management. These objectives correspond with broader international and regional commitments, particularly Sustainable Development Goal 16.9 on universal legal identity. More importantly, the reform reflects a conceptual shift from viewing civil registration merely as an administrative obligation towards recognising it as a rights-based service essential for child protection, inclusion and effective governance.

Critical assessment of the 2024 reform. Despite its progressive orientation, the implementation of Law No. 2024/016 presents several legal and institutional challenges. Firstly, while the legislation establishes the

¹⁶ Ordinance No. 81/02 of 29 June 1981 on the Organisation of Civil Status and various provisions relating to the Status of Natural Persons.

¹⁷ Supra, footnote 5.

foundation for electronic registration, questions remain regarding the protection of personal data generated through digital civil registration systems. The collection and storage of children's identity information require strong safeguards relating to privacy, cybersecurity, confidentiality and responsible data management.

Secondly, the effectiveness of digital registration depends upon the availability of adequate technological infrastructure. Significant inequalities remain between urban and rural areas regarding internet connectivity, electricity access and digital literacy. These challenges are intensified in conflict-affected regions, where insecurity, displacement and damaged infrastructure may prevent communities from benefiting fully from digital reforms. Therefore, legislative innovation alone cannot guarantee effective access to legal identity without corresponding investment in infrastructure and institutional capacity.

Thirdly, the law provides limited clarity regarding the legal status and oversight of community-based technology intermediaries involved in facilitating digital birth registration. Although these actors may play an essential role in connecting vulnerable communities with registration services, the absence of clear rules concerning their authority, responsibilities and accountability creates uncertainty within the civil registration framework.

Finally, the success of the reform must be assessed according to Cameroon's broader human rights obligations. Digitalisation should not be measured solely by technological advancement but by its capacity to enhance children's access to legal identity, prevent exclusion and protect vulnerable populations. The effectiveness of Law No. 2024/016 will therefore depend on whether implementation remains grounded in human rights principles, institutional accountability and meaningful community participation.

The evolution of Cameroon's civil registration system demonstrates a transition from traditional administrative governance towards digital and rights-based identity management. While Law No. 2024/016 establishes an important legal foundation for modern civil registration, legislation alone cannot ensure universal access to legal identity. Effective implementation requires functional institutions, reliable infrastructure, adequate data protection mechanisms, and trusted community actors capable of bridging the gap between formal legal systems and populations affected by conflict. This provides the basis for examining the theoretical framework surrounding community-based technology intermediaries in digital civil registration and child protection.

Theoretical Framework

The intersection between law, digital governance and child protection requires a theoretical framework capable of explaining not only the legal obligations surrounding civil registration but also the institutional and technological factors influencing their implementation. Although legal identity is protected through human rights norms, its realisation in conflict-affected environments depends upon effective institutions, technological capacity and community participation. This study therefore adopts an integrated framework comprising the Human Rights-Based Approach (HRBA), Institutional Theory, and Digital Governance Theory.

Together, these perspectives provide a comprehensive basis for analysing the effectiveness of community-based technology intermediaries in implementing Cameroon's digital civil registration reforms. While the HRBA explains the normative obligation to protect children's right to identity, Institutional Theory examines the structures through which such obligations are implemented, and Digital Governance Theory evaluates the role of technology in transforming public administration.

Human Rights-Based Approach (HRBA)

The Human Rights-Based Approach constitutes the principal normative foundation of this study. Developed through United Nations human rights frameworks, the HRBA requires public policies and administrative systems to be designed and implemented in accordance with internationally recognised human rights standards (United Nations, 2003). Within this perspective, civil registration is not merely an administrative procedure but a mechanism through which States fulfil their obligations to guarantee children's legal identity.

The HRBA is founded upon principles including universality, equality, participation, accountability, non-discrimination and the rule of law. Applied to civil registration, these principles require States to ensure that every child can obtain legal identity regardless of geographical location, socio-economic status or security conditions. Consequently, children living in conflict-affected communities retain the same entitlement to registration and legal recognition as children living in stable environments.

From this perspective, digital civil registration represents more than an administrative innovation. It constitutes a means through which States may strengthen the fulfilment of their human rights obligations by expanding access, reducing exclusion and improving institutional responsiveness. Therefore, the effectiveness of Cameroon's 2024 civil registration reform should be assessed according to whether it enhances children's access to identity rights rather than merely whether it improves technological efficiency.

The HRBA also highlights participation as a central element of rights implementation. Vulnerable communities should not be passive beneficiaries of administrative services but active participants in processes affecting their rights. This principle explains the importance of community-based technology intermediaries, who facilitate communication between State institutions and populations facing barriers to formal registration systems.

Institutional Theory

While the HRBA explains the legal obligation to protect legal identity, it does not fully explain the institutional conditions necessary for implementation. Institutional Theory addresses this limitation by examining how formal and informal structures influence governance outcomes (North, 1990).

Institutions consist of legal rules, administrative bodies, organisational practices and social arrangements that shape collective behaviour and public service delivery. The effectiveness of legal reforms therefore depends not only on legislative provisions but also on the capacity of institutions to translate legal obligations into practical results.

Within Cameroon's civil registration system, implementation involves multiple actors, including municipal councils, civil status registrars, government ministries, humanitarian organisations and community-based technology intermediaries. Their effectiveness depends upon coordination, resources, administrative capacity and public trust.

The conflict affecting Cameroon's Northwest and Southwest Regions disrupted these institutional arrangements by damaging administrative infrastructure, limiting governmental presence and preventing communities from accessing registration services. Institutional Theory helps explain why alternative actors emerged to maintain continuity in civil registration. Community health workers, teachers, humanitarian personnel and trained local agents became important links between vulnerable populations and formal administrative systems.

However, Institutional Theory also demonstrates that technology alone cannot overcome institutional weakness. Digital registration platforms require effective governance structures, trained personnel, legal oversight and public legitimacy. Consequently, successful digital transformation depends upon strengthening the institutional environment within which technology operates.

Digital Governance Theory

Digital Governance Theory examines how information technologies transform public administration, institutional accountability and citizen engagement. It explains the movement from traditional paper-based systems towards technology-enabled governance structures designed to improve efficiency, accessibility and responsiveness (OECD, 2024).

Within civil registration, digital governance facilitates electronic record management, improved coordination between institutions and preservation of vital information. These advantages are particularly important in conflict settings where physical records may be destroyed and administrative services disrupted. Digital systems can therefore enhance institutional resilience and improve access to legal identity.

Nevertheless, Digital Governance Theory also recognises that technological transformation creates new challenges. Digital exclusion, inadequate infrastructure, cybersecurity threats and privacy concerns may limit the effectiveness of digital reforms or undermine public confidence. Therefore, digital governance requires legal safeguards capable of balancing technological advancement with fundamental rights protection.

In Cameroon, this theory provides a framework for evaluating Law No. 2024/016. Although the reform establishes a legal basis for electronic civil registration, its success depends on infrastructure, institutional coordination, regulatory oversight and accessibility. Community-based technology intermediaries become essential actors because they connect digital systems with communities that may lack direct access to technological resources.

Integrating the Three Theoretical Perspectives

The three theoretical perspectives adopted in this study are complementary rather than independent. The Human Rights-Based Approach establishes that legal identity is a fundamental right requiring State protection. Institutional Theory explains the administrative structures and actors necessary for implementing that obligation. Digital Governance Theory demonstrates how technological systems can enhance or undermine the effectiveness of civil registration reforms.

Together, these perspectives provide a comprehensive framework for analysing digital civil registration in conflict-affected environments. They explain why the success of Cameroon's reforms depends not only on legal recognition or technological infrastructure but also on institutional capacity and meaningful community participation.

Within this framework, community-based technology intermediaries occupy a central position. They do not merely provide technical assistance; they translate legal obligations into practical access by connecting vulnerable populations with digital registration systems. Their role therefore represents the intersection between human rights protection, institutional resilience, and digital governance.

This integrated theoretical framework guides the subsequent analysis of Cameroon's civil registration reforms and provides the basis for evaluating how community-based interventions contribute to child protection and the realisation of legal identity in conflict-affected regions.

Findings and Discussion: Community-Based Technology Intermediaries and the Digitalisation of Legal Identity in Conflict-Affected Cameroon

Reimagining Civil Registration through Community-Based Technology Intermediaries

The digital transformation of civil registration systems has fundamentally altered the manner in which States discharge their obligations concerning children's right to legal identity. In Cameroon, this transformation has become particularly significant within the conflict-affected Northwest and Southwest Regions, where conventional administrative structures have been severely weakened by prolonged armed violence. The destruction of municipal infrastructure, displacement of civil servants, and restricted access to government offices have rendered traditional paper-based registration systems increasingly ineffective. Consequently, community-based technology intermediaries have emerged as indispensable actors in sustaining civil registration and ensuring that vulnerable children remain legally visible despite the collapse of conventional administrative mechanisms.

Empirical findings obtained during this study indicate that community-based technology intermediaries constitute the operational bridge between vulnerable communities and the formal civil registration system. Rather than replacing statutory civil registrars, these intermediaries facilitate the implementation of legal obligations by assisting families to initiate birth declarations, transmitting electronic registration data, verifying documentary evidence and guiding applicants through increasingly digital administrative procedures. Respondents consistently emphasised that without these locally embedded actors, many children born within remote and insecure communities would remain entirely outside the national civil registration system.

One municipal civil registration officer observed:

Many parents cannot reach council offices because of insecurity. Community volunteers now serve as the first contact for birth registration. They gather information, assist families and transmit declarations electronically whenever communication networks become available.

This observation demonstrates that community-based intermediaries perform functions extending beyond technical assistance. They have become institutional facilitators whose activities enable the State to continue fulfilling its legal obligations under exceptionally difficult circumstances. Their contribution illustrates the practical application of the Human Rights-Based Approach discussed earlier, whereby the protection of children's rights requires adaptive institutional arrangements capable of overcoming barriers created by armed conflict.

From an institutional perspective, the emergence of community-based intermediaries reflects a process of adaptive governance. Institutional Theory suggests that when formal governance structures become weakened or inaccessible, alternative actors frequently emerge to preserve institutional continuity. This phenomenon is clearly observable within Cameroon's civil registration system. Rather than abandoning registration altogether, local communities, humanitarian organisations and public authorities have collectively developed informal yet increasingly organised mechanisms capable of maintaining essential civil registration services despite persistent insecurity.

Importantly, these findings challenge conventional understandings of civil registration as an exclusively governmental function. Although legal authority remains vested in officially designated registrars, practical implementation increasingly depends upon collaborative governance involving community actors, local authorities, humanitarian organisations and digital service providers. Community-based technology

intermediaries therefore represent an important evolution in contemporary public administration whereby State functions are delivered through cooperative institutional networks while preserving governmental oversight.

Digital Technologies as Instruments for Protecting Children's Right to Legal Identity

The findings demonstrate that digital technologies have significantly improved the resilience of Cameroon's civil registration system, particularly within conflict-affected communities. Participants consistently indicated that electronic registration reduces many weaknesses associated with traditional paper-based systems by improving record preservation, facilitating retrieval of information, and strengthening coordination among institutions responsible for child protection.

Unlike physical registers, which may be destroyed during armed attacks or displacement, electronic records can be preserved through secure storage systems and accessed by authorised institutions. Digitalisation therefore enhances institutional continuity by ensuring that children's legal identities remain protected despite disruptions to administrative infrastructure.

Analysis of electronic registration data from 2024-2025 indicates gradual improvements in birth registration coverage among communities benefiting from digitally supported initiatives. Respondents further noted that mobile registration technologies have expanded access for internally displaced populations and communities located far from conventional administrative centres.

However, the findings also demonstrate that technology alone cannot resolve institutional barriers to legal identity. Digital systems remain dependent upon human support, particularly in rural and conflict-affected environments where digital literacy and infrastructure remain limited. Community-based technology intermediaries assist families with electronic procedures, verify registration information and address technical challenges. Their role confirms that effective digital governance is fundamentally human-centred and depends upon the interaction between technology, institutions and community participation.

These findings support Digital Governance Theory by demonstrating that technological innovation derives its effectiveness not simply from digital infrastructure but from the institutional relationships through which it operates. Digital civil registration therefore requires both technological capacity and trusted actors capable of ensuring accessibility for vulnerable populations.

Community Trust as the Foundation of Digital Civil Registration

A major finding of this study is that community trust significantly influences participation in digital civil registration initiatives. Respondents consistently identified trust as a determining factor affecting families' willingness to provide personal information and engage with registration systems.

Community-based intermediaries benefit from existing social relationships within local communities. Unlike unfamiliar government officials, these actors are often known through schools, religious institutions, health centres and community organisations. Their familiarity reduces suspicion, improves communication and encourages families to participate in registration programmes.

This finding demonstrates that legal compliance depends not only on formal legal obligations but also on social legitimacy. Although Law No. 2024/016 establishes the legal framework for digital civil registration, its practical effectiveness depends upon whether communities perceive registration institutions as accessible and trustworthy.

Accordingly, community-based technology intermediaries should be understood not merely as technical assistants but as rights-enabling institutional actors. They operationalise State obligations under international

and regional human rights law, maintain registration services during institutional disruption and bridge the gap between digital governance systems and vulnerable populations.

This conceptualisation contributes to existing scholarship by demonstrating that community participation is not simply an administrative convenience but a governance mechanism that strengthens the legitimacy and effectiveness of digital identity systems.

Data Privacy, Cybersecurity and the Protection of Children's Digital Identities

While digital civil registration has strengthened access to legal identity, it also raises significant concerns around privacy, cybersecurity, and the protection of children's personal information. Increased administrative efficiency comes with risks of unauthorised access, data breaches, surveillance, and misuse of sensitive data.

Interviews revealed confidentiality concerns among both registration facilitators and beneficiary families. Community-based intermediaries confirmed they were trained to collect registration data but rarely given guidance on digital data protection, leaving devices and records vulnerable in the absence of clear security procedures. As one facilitator put it:

Most of us understand how to register children, but very few have received formal instruction on protecting electronic records.

This reflects a broader gap: technology has outpaced governance. As intermediaries handle increasingly sensitive information, they need legal standards covering confidentiality, storage, and accountability.

International human rights law reinforces this need. Article 16 of the CRC protects children from unlawful interference with privacy, and regional child protection frameworks require that technological innovation respects dignity and the child's best interests. Cybersecurity is especially critical in conflict-affected settings, where identity databases can become targets for actors seeking to exploit vulnerable populations, making it a human rights and child protection issue, not merely a technical one.

International best practice favours privacy-by-design: building in encryption, access controls, secure storage, audit mechanisms, and regular security assessments from the outset. Embedding these in Cameroon's system would strengthen both rights compliance and public trust.

The legal status of community-based technology intermediaries also remains unclear, particularly accountability for breaches, lost devices, or improper disclosure. Statutory recognition, professional standards, confidentiality obligations, and training would close this gap.

Notably, respondents' trust in digital registration stemmed more from trust in community intermediaries than in the technology itself, showing that legitimacy in digital governance rests on accountable institutions and human relationships, not just technical sophistication.

These findings support the study's theoretical framing: the Human Rights-Based Approach shows efficiency cannot substitute for rights protection; Institutional Theory highlights the need for regulatory and accountability structures; and Digital Governance Theory confirms that sustainable digital transformation must balance innovation with rights protection.

In sum, while Law No. 2024/016 marks real progress in modernising Cameroon's civil registration system, a comprehensive framework on data protection, cybersecurity, intermediary accountability, and institutional oversight is still needed to ensure digital registration strengthens, rather than threatens, children's right to legal identity.

Digital Exclusion, Connectivity Deficits and the Emergence of Digital Legal Invisibility

Despite the benefits of digital civil registration, the findings demonstrate that technological innovation alone cannot guarantee universal legal identity. Effective digital registration depends upon reliable infrastructure, institutional capacity and citizens' ability to participate meaningfully in digital systems. Within conflict-affected regions of Cameroon, deficiencies in connectivity, electricity supply and digital literacy risk creating a new form of exclusion that may be described as digital legal invisibility.

Unlike traditional exclusion caused by distance or bureaucracy, digital exclusion stems from unequal access to technology and skills. Respondents in the Northwest and Southwest Regions reported persistent network interruptions, power shortages, and damaged infrastructure delaying transmission of birth registration data. As one community health worker explained:

There are days when we complete several birth declarations but cannot upload them because there is no network coverage. Sometimes we must travel to another locality simply to transmit registration data.

This shows that digital infrastructure is not just a technical requirement but a precondition for the effective enjoyment of legal identity; platforms alone cannot ensure access where communities lack the means to use them.

Digital literacy is a further barrier, particularly for rural and displaced parents unfamiliar with electronic procedures; many rely on community intermediaries to complete registration at all. This challenges the assumption that digitalisation automatically improves access; without investment in education, infrastructure, and community capacity, it can instead reproduce existing inequalities and shift administrative burdens onto citizens least equipped to bear them.

Legally, this raises equality and non-discrimination concerns: international human rights law requires public services to be accessible without unjustified discrimination, and digital systems that disadvantage those lacking connectivity, electricity, or digital skills may undermine substantive equality and children's right to legal identity.

Internally displaced persons face particular difficulty, often losing documentation and facing disrupted support networks, which delays birth registration. Gender disparities compound this: rural women often have less access to devices, internet, and digital literacy, and since mothers typically register children, these inequalities indirectly affect children's access to legal identity.

Digital exclusion is therefore a legal and governance challenge, not merely a technological one. Institutional Theory shows that governance systems work only when citizens can practically engage with them, making community intermediaries institutionally essential. Digital Governance Theory similarly confirms that successful digital transformation requires infrastructure, coordination, education, and public trust; platforms alone cannot overcome structural inequality.

This study advances *digital legal inclusion* as an emerging human rights principle, extending beyond access to registration itself to include equitable connectivity, digital literacy, affordable communication, and community support. In conflict-affected settings, achieving universal legal identity requires differentiated strategies for displaced populations, rural communities, and children in insecure environments.

While Law No. 2024/016 lays an important legal foundation, its success depends on complementary investment in infrastructure, capacity-building, and inclusive governance. Without this, digitalisation risks replacing old exclusion with new, technologically mediated forms of legal invisibility; with adequate

safeguards and participation, it can instead become a powerful tool for protecting children's right to legal identity.

Policy Recommendations

The findings of this study demonstrate that while Cameroon has made significant progress through Law No. 2024/016 of 23 December 2024, legislative reform alone is insufficient to ensure universal realisation of children's right to legal identity in conflict-affected regions. Effective digital civil registration requires an integrated governance framework combining robust legal regulation, accountable institutions, secure technologies and meaningful community participation. Accordingly, the following recommendations are proposed.

Strengthen the Legal Framework Governing Community-Based Technology Intermediaries

The first priority should be the adoption of implementing regulations under Law No. 2024/016 formally recognising community-based technology intermediaries as accredited participants within the national civil registration system. These regulations should define their legal status, authority, professional qualifications, confidentiality duties, accountability mechanisms and disciplinary procedures.

Formal recognition would reduce regulatory uncertainty and ensure that community intermediaries operate within a transparent framework consistent with constitutional principles, international human rights standards and the rule of law.

Adopt a Comprehensive Child-Centred Data Protection Framework

Cameroon should establish a specialised regulatory framework governing children's personal information within digital civil registration systems.

Such a framework should provide for data minimisation principles; encryption requirements; secure electronic storage; controlled access protocols; cybersecurity standards; data retention and deletion procedures; mandatory breach notification; and independent oversight of digital identity systems.

Particular attention should be given to children in conflict-affected communities whose personal information may create additional risks if improperly managed.

Institutionalise Continuous Professional Training

Digital civil registration requires specialised legal, administrative and technological competencies. Government institutions responsible for civil registration should establish continuous training programmes for civil registrars, municipal officials, healthcare personnel, teachers involved in registration initiatives and community-based technology intermediaries.

Training should cover child rights, digital governance, data protection, cybersecurity, ethical standards, conflict-sensitive service delivery and electronic records management. Continuous professional development would improve institutional consistency and public confidence.

Expand Digital Infrastructure within Conflict-Affected Communities

The findings demonstrate that limited connectivity and unreliable electricity remain major barriers to digital civil registration. Government investment should prioritise: broadband expansion; improved mobile network coverage; solar-powered registration equipment; offline registration platforms capable of later synchronisation; and secure cloud-based backup systems. Such measures would strengthen the resilience of civil registration services during insecurity.

Promote Community Participation through Rights-Based Partnerships

Community participation should become a permanent component of civil registration governance rather than a temporary humanitarian response. Municipal authorities should establish partnerships with community organisations, traditional authorities, religious institutions, schools, health facilities and humanitarian organisations.

These partnerships should define responsibilities while preserving governmental oversight of official civil registration functions.

Strengthen Inter-Institutional Coordination

Digital civil registration requires effective cooperation among municipal councils, civil registration authorities, health facilities, educational institutions, social protection agencies and national identification authorities.

Interoperability should be supported by harmonised legislation regulating secure information sharing while protecting privacy and confidentiality.

Integrate Conflict Sensitivity into Civil Registration Policy

Conflict-affected regions require flexible administrative mechanisms capable of maintaining civil registration despite insecurity. Future policies should incorporate mobile registration units, emergency registration procedures, simplified documentary requirements for internally displaced persons, community verification mechanisms and humanitarian registration partnerships. These measures would preserve continuity of legal identity during prolonged crises.

Encourage Regional Cooperation within the African Union

Cameroon should collaborate with other African States through the African Union to develop harmonised standards on digital legal identity. Regional cooperation may facilitate technical expertise exchange, common regulatory principles, interoperable digital identity standards, cybersecurity strategies and comparative research on digital registration in conflict settings. Such cooperation would support implementation of the African Union Digital Transformation Strategy (2020-2030) and Agenda 2063.

Conclusions

This article examined the role of community-based technology intermediaries in implementing digital civil registration reforms for child protection within conflict-affected Cameroon. It demonstrated that legal identity is not merely an administrative record but a fundamental human right upon which access to education, healthcare, social protection, nationality and legal recognition depends.

Using a mixed-methods approach combining doctrinal analysis and empirical evidence, the study assessed Cameroon's evolving legal framework, particularly Law No. 2024/016 of 23 December 2024, against international and regional human rights standards. While the law represents significant progress, the findings demonstrate that legislative reform alone cannot guarantee children's right to identity. Effective implementation requires institutional capacity, digital infrastructure, regulatory safeguards and inclusive governance.

A central finding is that community-based technology intermediaries have become rights-enabling governance actors rather than merely operational assistants. By connecting vulnerable communities with formal institutions, they facilitate the practical implementation of legal obligations where conventional administrative structures have been weakened by conflict.

The study further demonstrated that digitalisation creates both opportunities and risks. While digital registration improves efficiency, preserves records and strengthens resilience, it also raises concerns regarding data protection, cybersecurity, digital exclusion and accountability. Sustainable digital transformation therefore requires technological innovation grounded in human rights, transparency and the rule of law.

The principal theoretical contribution of this study lies in advancing the concept of community-based technology intermediaries as rights-enabling institutional actors and proposing the Human-Centred Community Digital Identity Governance Model (HCDIGM). This model integrates rights-based legal governance, community participation, secure digital infrastructure, inclusive access and institutional accountability as essential pillars of digital civil registration in conflict-affected settings.

From a policy perspective, the findings highlight the need for comprehensive regulatory reform, investment in digital infrastructure, institutional strengthening and partnerships between government and communities. These measures are essential for Cameroon and other conflict-affected jurisdictions seeking to modernise civil registration while protecting fundamental rights.

Ultimately, the future of legal identity in Africa will depend not only on digital innovation but on ensuring that technological transformation remains inclusive, accountable and centred on human dignity and the best interests of the child. Future research should explore comparative African experiences, long-term impacts of digital reforms and emerging technologies such as artificial intelligence and blockchain in rights-based identity systems.

References

- African Union. (2015). *Agenda 2063: The Africa we want* (2nd ed.). African Union Commission.
- African Union. (2020). *Digital transformation strategy for Africa (2020-2030)*. African Union Commission.
- Bang, H. N., & Balgah, R. A. (2022). The ramification of Cameroon's Anglophone crisis: Conceptual analysis of a looming "Complex Disaster Emergency". *Journal of International Humanitarian Action*, 7(1), Article 6.
- Fombad, C. M. (2018). Gender equality and women's legal status in Cameroon. *Journal of African Law*, 62(1), 121-146.
- Gelb, A., & Metz, A. D. (2018). *Identification revolution: Can digital ID be harnessed for development?* Center for Global Development / Brookings Institution Press.
- Lambert, L. (2025). Brokers of citizenship. Justices of the peace as intermediaries in Sierra Leone's digital identification project. *Citizenship Studies*, 29(6), 555-570.
- Manby, B. (2021). The Sustainable Development Goals and 'legal identity for all': 'First, do no harm'. *World Development*, 139, Article 105343.
- North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge University Press.
- Organisation for Economic Co-operation and Development (OECD). (2023). *The OECD recommendation on the governance of digital identity*. OECD Publishing.
- Organisation for Economic Co-operation and Development (OECD). (2024). *Digital government index: 2023 results*. OECD Publishing.
- Pommerolle, M.-E., & Heungoup, H. D. M. (2017). The "Anglophone crisis": A tale of the Cameroonian postcolony. *African Affairs*, 116(464), 526-538.
- Setel, P. W., Macfarlane, S. B., Szreter, S., Mikkelsen, L., Jha, P., Stout, S., AbouZahr, C., & Monitoring of Vital Events. (2007). A scandal of invisibility: Making everyone count by counting everyone. *The Lancet*, 370(9598), 1569-1577.
- Sivakumaran, S. (2012). *The law of non-international armed conflict*. Oxford University Press.
- United Nations Children's Fund (UNICEF). (2019). Birth registration for every child by 2030: Are we on track?
- United Nations Children's Fund (UNICEF). (2024). *The state of the world's children 2024*.
- United Nations Children's Fund and World Health Organization (UNICEF/WHO). (2022). *Operational guidance for civil registration and vital statistics systems in emergencies*.

- United Nations General Assembly. (2015, October 21). Transforming our world: The 2030 agenda for sustainable development. UNGA Res 70/1.
- United Nations High Commissioner for Refugees (UNHCR). (2017). Good practices paper: Action 7—Ensuring birth registration for the prevention of statelessness.
- United Nations. (2003). The human rights based approach to development cooperation: Towards a common understanding among UN agencies. United Nations Development Group.
- United Nations. (2020). Legal identity agenda: Common principles for identification systems. United Nations Legal Identity Expert Group.
- World Bank. (2021). World development report 2021: Data for better lives.
- World Bank. (2022a). ID4D practitioner's guide: Principles for digital identification systems.
- World Bank. (2022b). Identification for Development (ID4D): Global dataset 2021.
- World Bank. (2022c). Principles on identification for sustainable development: Toward the digital age. World Bank Group.
- World Health Organization (WHO). (2021a). Civil registration and vital statistics: Strategic implementation plan 2021-2025.
- World Health Organization (WHO). (2021b). Civil registration and vital statistics systems: Management, operation and maintenance.