

Digital Licensing Regulations in Indonesia: Legal Study and Policy Implementation

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Abstract: Current advances in information technology have had complex impacts, particularly in the realm of human rights and licensing. These challenges include the enforcement of intellectual property rights (IPR) laws, and the lack of synchronization between top-down and bottom-up regulations, leading to disharmony between national regulations and the needs of the local digital ecosystem. This study aims to explore the digital licensing regulatory framework in Indonesia with a focus on implementation in West Java, identify legal gaps, and formulate an adaptive regulatory model appropriate to the local context. The study uses an empirical legal approach with analysis of primary and secondary legal documents, in-depth interviews with 45 intellectual property rights law experts, regulators, and digital industry players in West Java, and focus group discussions (FGDs) to validate the findings. Data were analyzed using a thematic analysis framework and local context-based regulatory analysis. The findings indicate that the implementation of digital licensing regulations in West Java faces multiple challenges, including weak law enforcement infrastructure at the district/city level, disparity in human resource capacity between Bandung as the center and its outlying areas, and low digital literacy among local creative industry players. This research produces a locally context-based adaptive regulatory model that can serve as a policy reference for local governments in formulating a comprehensive and responsive digital licensing legal framework.

Keywords: digital licensing, IPR regulations, digital economy, digital creative industry

Introduction

In today's era, the process of social change has occurred so rapidly that it can impact all aspects (Bennett et al., 2009). In addition, Intellectual Property Rights service products can be processed through digital platforms, so that the licensing mechanism that was originally conventional is transformed into a digital and cyber system (Alom et al., 2019). This

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phenomenon has triggered various complex legal consequences, particularly for Indonesia, whose regulatory capacity has not yet fully kept pace with the speed of technological change ([Tobin, 2010](#)).

Various issues regarding digital licensing cover a wide range of aspects, from software, digital creative content, game assets, music, and online films, to data based on artificial intelligence algorithms ([Agustina et al., 2020](#)). Indonesia faces at least four significant interrelated issues: (1) gaps in legislative and institutional capacity in responding to technological innovation; (2) weak infrastructure for IPR law enforcement in the digital realm; (3) regulatory disharmony with international standards such as the TRIPS Agreement and the WIPO Copyright Treaty ([Olujobi, 2021](#)); and (4) market domination by multinational technology platforms operating outside the reach of domestic legal jurisdiction.

Theoretically, this research is based on three main conceptual frameworks. First, the theory of responsive regulation which emphasizes the importance of the adaptability of the legal system to the dynamics of business actor behaviour ([Banks, 2017](#)). Second, the theory of harmonization of international law which is the basis for analysis of local context-based regulations. Third, the concept of digital constitutionalism which examines the relationship between digital platform regulations and the protection of users' fundamental rights ([Gemedá & Lee, 2020](#)). This theoretical framework guides the analysis of how Indonesia positions itself within the global digital legal architecture.

Although the literature on digital IPR regulations has developed quite rapidly, there is a significant research gap, namely the lack of studies that systematically analyze the implementation of digital licensing regulations at the provincial and regional levels in the Indonesian context ([Wagena et al., 2020](#)). Most existing studies focus on general national policy analysis, ignoring the substantially different institutional, historical, and technical capacity dynamics between central and regional governments ([Wagena et al., 2020](#)). This research is here to fill this gap by taking West Java as a representative case study.

The novelty of this research lies in the development of a contextual analytical framework for the implementation of digital licensing regulations at the provincial level, by simultaneously integrating legal, technological, and public policy dimensions. The urgency of this research is heightened given the average annual growth of the digital economy in West Java, which has reached 18.7 % ([Anh et al., 2019](#)), while the existing regulatory framework has not been able to provide adequate legal certainty for digital creative businesses or effective protection for license holders ([Lim & Han, 2020](#)).

West Java Province holds a strategic position in Indonesia's digital economy. With a population of over 49 million and internet penetration reaching 73.4 %, West Java is the second-largest digital market after Jakarta. Bandung, the provincial capital, has developed into a nationally and internationally recognized hub for the startup ecosystem and digital creative industry. Creative industry clusters such as Dago, Buah Batu, and Bandung Technopolis serve as practical laboratories for the implementation of digital licensing regulations.

However, despite this booming digital economy, West Java also reflects the complex regulatory challenges typical of developing countries. The disparity between major cities like Bandung and Bekasi and outlying areas like Pangandaran or Garut creates a significant gap in regulatory implementation ([Kahne et al., 2016](#)). While digital industry players in urban centers are beginning to understand the importance of digital licensing protection, content creators and app developers in the regions remain highly vulnerable to IPR violations due to limited access to information and adequate legal services ([Kahne et al., 2016](#)).

This complexity is exacerbated by the fragmentation of authority between the central government, provincial governments, and district/city governments in implementing digital IPR protection. Law No. 28 of 2014 concerning Copyright is the national legal instrument that serves as the backbone of digital licensing protection, but its implementation at the regional level depends heavily on the capacity and commitment of each regional government. Weak inter-agency coordination between the Directorate General of IPR, the Regional Department of Industry and Trade, and local law enforcement agencies often presents a weak point in the digital licensing law enforcement chain.

From the business actor dimension, the West Java digital creative industry sector, which consists of thousands of MSMEs and freelancers, faces an acute regulatory dilemma. On the one hand, they require robust licensing protection to protect their digital works from piracy and unauthorized use. On the other hand, the complexity of IPR registration procedures, the perceived prohibitive costs, and low legal awareness prevent most small creative industry players from utilizing available protection mechanisms. This situation creates a protection paradox: regulations exist, but the primary beneficiaries cannot effectively access them.

This study focuses on the following two research questions: RQ1: How is the implementation of the national digital licensing regulatory framework in West Java Province in terms of regulatory scope, law enforcement capacity, and suitability to the needs of the local digital ecosystem? RQ2: What factors determine the effectiveness of digital licensing regulations in West Java and what regulatory model is most adaptive to the dynamics of digital technology in the regional context?

Research Method

This research uses an empirical juridical approach combined with qualitative methods based on grounded theory (Creswell, 2015). This design was chosen to conduct an in-depth analysis of regulatory implementation within a specific social and institutional context, while simultaneously generating analytical categories rooted in empirical field data. The research was conducted over a twenty-four-month period (January 2023–December 2023) and focused on West Java Province as the primary unit of analysis, considering a comprehensive representation of the digital ecosystem, spanning from the city center to the suburbs.

The selection of West Java as the research location was based on four main considerations: (a) West Java is the province with the second largest number of digital creative industry players in Indonesia after DKI Jakarta; (b) the existence of a startup ecosystem and digital technology center in Bandung as a laboratory for regulatory implementation; (c) the availability of adequate legal data and accessibility of key informants; and (d) the existence of disparities in implementation between urban and rural areas that are relevant for layered regulatory analysis.

Table 1 Research Design Overview

Component	Description	Justification
Paradigm	Critical interpretivism	Analysis of local legal & social context
Approach	Empirical + qualitative juridical	Implementation of regulations and field data
Strategy	Single-site case study – West Java	Depth of regional context analysis
Period	January 2023 – December 2023	Latest legal and policy data
Unit of Analysis	Regulations, policies, local legal actors	Comprehensive multi-level regional

Sampling Techniques

The selection of research locations within West Java used purposive sampling with regional representation criteria that included urban zones (Bandung City, Bekasi City, Depok City), peri-urban zones (Bandung Regency, Bogor Regency), and rural zones (Garut Regency, Pangandaran Regency). This stratification was carried out to ensure that the research captured variations in regulatory implementation that actually occurred in the field, not only in the city center. The selection of interview participants used a snowball sampling technique from initial key informants identified through the network of the Indonesian Intellectual Property Consultants Association (AKHKI) and the West Java Provincial Industry and Trade Office.

Table 2 Distribution of Research Samples in West Java Province

Region/Category	Intellectual Property Law Expert	Regional Regulator	Digital Industry Players	Total
Bandung	5	4	4	13
Bekasi & Depok City	3	2	3	8
Bandung & Bogor Regency	3	3	2	8
Garut & Pangandaran	2	2	2	6
Provincial Level (West Java Provincial Government)	3	4	0	7
National Resource Person (DJHKI Center)	2	1	0	3
Total	18	16	11	45

Participant Characteristics

Interview participants met the following inclusion criteria: (a) at least 5 years of experience in digital IP law or digital platform regulation; (b) actively involved in the legislative process, policy implementation, or IP law enforcement at the provincial or district/city level in West Java; (c) willing to provide informed consent and spend at least 60 minutes for an in-depth interview. The demographic characteristics of the participants are presented in Table 3.

Table 3 Demographic Characteristics of Participants

Characteristics	Category	Frequency (n=45)	Percentage (%)
Gender	Man	28	62.2%
	Woman	17	37.8%
Education	Master of Law/Policy	18	40.0%
	S3 (Doctorate)	27	60.0%
Experience	5–10 years	16	35.6%
	11–20 years	21	46.7%
	> 20 years	8	17.8%
Institution	Academic/University	20	44.4%
	Regional Government Institutions	15	33.3%
	Industry/Private	10	22.2%

Data Collection Techniques

Data collection was conducted through three main, complementary instruments. First, analysis of primary legal documents included Law Number 28 of 2014 concerning Copyright, related Government Regulations, the West Java Provincial Regulation on the Creative Economy, decisions of first-instance and appellate commercial courts, and policies of digital platforms operating in Indonesia. Document analysis focused on clauses directly related to digital licensing and digital dispute resolution mechanisms.

Second, semi-structured in-depth interviews used interview guidelines developed based on a theoretical framework and validated by three intellectual property law experts from Padjadjaran University. Interviews were conducted in a hybrid format (offline and online) to ensure regional representation, with offline interviews conducted at the participants' offices/institutions and online interviews via video conference. All interview sessions were recorded with the participants' permission and transcribed verbatim. Third, two rounds of focus group discussions (FGD) were conducted to triangulate the findings, each attended by 8–10 participants representing various stakeholder categories.

Data Analysis Techniques

Data were analyzed using two main complementary techniques. First, thematic analysis followed the procedures of Braun & Clarke (2006) through six stages: data familiarization, initial coding, theme discovery, theme review, theme definition, and reporting. The coding process was conducted inductively using NVivo 12 software, involving two independent coders to ensure intercoder reliability (Cohen's kappa = 0.83). Second, a local context-based regulatory analysis was used to compare the substance of national regulations with implementation conditions in the field, using an analysis matrix that included the following dimensions: regulatory scope, enforcement mechanisms, regional institutional capacity, and digital literacy of industry players. Data validity was ensured through member checking, peer debriefing, and an audit trail.

Table 4 Regulatory Analysis Dimension Matrix

Dimensions of Analysis	Indicator	Data source
Regulatory Coverage	Scope of protection, legal subjects, license objects	Primary legal documents
Law enforcement	Sanction mechanisms, supervisory bodies, regional technical capacity	Interview + documents
Regional Institutional Capacity	Human resources, budget, technology infrastructure of the West Java Regional Government	Regional regulator interview
Digital Literacy	Public education programs, local IPR	Policy documents +

	awareness campaigns	FGD
Accessibility of IPR Services	Ease of registration, costs, service times	Industry player interviews

Result and Discussion

Digital Licensing Regulatory Framework in Indonesia and Its Implementation in West Java

Based on field data findings, an analysis of the legal framework for digital licensing in Indonesia indicates that existing regulations, while normatively quite comprehensive, face serious challenges in their implementation at the regional level. Law Number 28 of 2014 concerning Copyright is the primary legal instrument governing digital licensing in Indonesia, with coverage covering computer programs, multimedia content, digital databases, and other digital works. However, the implementation of this law in West Java Province shows a significant gap between the normative substance and the reality of enforcement on the ground, especially in regions with limited institutional capacity.

Table 5 Profile of Digital Licensing Regulations in Indonesia - Implementation in West Java

Dimensions	National Regulations	Implementation in West Java	The gap
Main Regulations	Law No.28/2014 concerning Copyright	West Java Regional Regulation No. 10/2018 concerning Creative Economy (supporting)	There is no specific Digital IPR Regional Regulation yet
Digital Coverage	Medium - High (normative)	Low-Medium (actual implementation)	Significant gap in the suburbs
Enforcement Mechanism	Administrative and Criminal	Dominated by manual complaint handling	There is no integrated digital system yet
Special Intellectual Property Agency	DJHKI (national level)	Only through the West Java Trade and Industry Service	There is no dedicated digital IPR unit in the region
Digital ADR Mechanism	Limited (BANI, BAPMI)	Not yet accessible to digital MSME actors	Cost and information barriers
Effectiveness Score (1-5)	2.8 (national)	2.3 (West Java)	Implementation gap of 0.5 points

Field findings revealed that among the 27 regencies/cities in West Java, only Bandung City and Bekasi City have relatively adequate institutional capacity to handle digital licensing disputes procedurally. In the other eight regencies/cities studied, there are no dedicated work units or officers to handle digital intellectual property rights issues, so all digital

licensing complaints must be referred directly to the Directorate General of Intellectual Property Rights in Jakarta. This situation creates significant accessibility barriers, particularly for small-scale digital creative industry players who lack the resources to navigate cross-border dispute resolution processes.

In-depth interviews with key informants from the West Java Provincial Industry and Trade Office confirmed the existence of fragmentation of authority which is a structural obstacle. An echelon III official at the West Java Trade and Industry Service stated that coordination between vertical agencies (DJHKI) and regional agencies was not running optimally due to differences in perception regarding the limits of their respective authorities. Meanwhile, digital creative industry players interviewed consistently complained about the lengthy procedures and the lack of public awareness regarding the digital licensing protection mechanisms available to them.

Analysis of regulatory documents also revealed that the West Java Provincial Regulation on the Creative Economy (Regional Regulation No. 10 of 2018) has not explicitly regulated the digital license protection mechanism as part of the regional creative economy ecosystem. The regulation focuses more on capacity development and promotion of the creative industry, without substantively addressing the dimensions of digital IPR protection. This regulatory gap is an important finding that indicates the need for revision or addition of regional regulations that specifically address the need for digital license protection for the West Java creative industry ecosystem.

From a historical perspective, the development of digital licensing regulations in West Java cannot be separated from the context of slow bureaucratic reform at the regional level. The period 2014–2018, when the new Copyright Law began to be implemented, demonstrated that most district/city governments in West Java had not yet made the necessary institutional capacity adjustments. This contrasts with Jakarta, which relatively quickly established dedicated units and mechanisms for digital IPR services. This gap ultimately resulted in a marked disparity in the quality of digital licensing protection, even within the same province.

Factors Determining the Effectiveness of Digital Licensing Regulations in West Java

Based on the findings of the field data, thematic analysis of interview and focus group discussion data identified six determinants of the effectiveness of digital licensing regulations in West Java. These factors are grouped into two main clusters: institutional capacity and digital ecosystem factors. The frequency distribution of themes in the

qualitative data is presented in Table 6, while an assessment of conditions by regional zone in West Java based on their relationship to these factors is presented in Table 7.

Table 6 Themes and Frequency of Appearance in Qualitative Data (n=45)

No	Theme/Factor	Frequency Mentioned	Percentage of Participants	Category
1	Regional regulatory human resource capacity	38	84.4%	Institutional
2	Enforcement technology infrastructure	35	77.8%	Institutional
3	C e n t r a l - r e g i o n a l coordination	33	73.3%	Institutional
4	Public & industry digital literacy	30	66.7%	Ecosystem
5	Accessibility of local IPR services	27	60.0%	Ecosystem
6	Political will of local government	25	55.6%	Institutional

Table 7 Assessment of Determinant Factor Conditions per Regional Zone in West Java

Determinant Factors	Bandung (Central)	Bekasi-Depok	Peri-Urban	Rural areas
Regulative HR capacity	Medium-High	Currently	Low-Medium	Low
Enforcement IT infrastructure	Currently	Currently	Low	Low
C e n t r a l - r e g i o n a l coordination	Currently	Low-Medium	Low	Low
Public digital literacy	Medium-High	Currently	Low	Low
Accessibility of IPR services	Currently	Low	Very Low	Very Low
Political will of local government	Medium-High	Currently	Low-Medium	Low
Composite Score	3.1/5	2.7/5	2.1/5	1.8/5

Qualitative findings revealed that regulatory human resource capacity was the most consistently cited factor by participants (84.4 %). This capacity deficit is multi-layered: it concerns not only the number of personnel handling digital IPR issues, but also technical competence in understanding digital platform ecosystems, license-based creative economy business models, and cyber law enforcement mechanisms. A source from the West Java

Provincial Trade and Industry Office stated that their office only has two staff members with a basic understanding of digital IPR, while the number of complaints received each month continues to increase.

The coordination factor between the central and regional governments emerged as a unique finding in the context of Indonesia as a unitary state with a decentralized nuance. Although formally, IPR authority is centralized under the Ministry of Law and Human Rights, implementation on the ground requires active collaboration with local governments. FGD findings identified three root causes of coordination problems: first, the lack of central government budget transfers for IPR socialization and enforcement programs in the regions; second, the frequent rotation of regional officials, which hinders the accumulation of technical capacity; and third, the absence of clear standard operating procedures (SOPs) for handling digital licensing disputes at the regional level.

Accessibility of IPR services emerged as a factor that has a direct impact on the behavior of digital creative industry players in utilizing licensing protection. A brief survey conducted on 120 digital MSMEs in West Java within the framework of this research showed that 67.5 % of respondents had never registered any of their digital works with DJHKI, with three main reasons: (a) registration fees considered too high (43.2% of respondents), (b) procedures considered complicated and time-consuming (38.7% of respondents), and (c) ignorance of registration procedures (18.1% of respondents). These findings indicate that obstacles lie not only in regulatory capacity, but also in the design of public services that are not yet oriented to the needs of digital MSMEs.

The political will of local governments shows interesting variations across regencies/cities. Bandung, which has declared itself a digital technology- based creative city, demonstrates a stronger commitment through various programs such as the Bandung Creative Hub and Bandung Digital Valley. However, in regencies with agricultural and maritime-based economies, such as Pangandaran and Garut, digital licensing issues have not yet been prioritized in regional development agendas. This condition results in a map of digital licensing regulation implementation that is very uneven within a single province, a phenomenon that researchers call a digital regulatory archipelago – a fragmented digital regulatory archipelago.

Discussion and Limitations

The main findings of this study reveal two critical patterns in the digital licensing regulatory landscape in Indonesia, particularly in West Java Province. First, there is a significant gap between the normative maturity of regulations and their implementation capacity at the regional level. Indonesia has a relatively comprehensive legal framework at the national level

through Law No. 28 of 2014, but effective law enforcement at the provincial and district/city levels is hampered by limited technical infrastructure, human resource capacity, and fragmented institutional coordination. Second, disparities in regulatory implementation between urban and rural areas within the same province have been found to create structural inequities that have the potential to weaken the digital creative industry ecosystem as a whole ([Arifin & Irsan, 2019](#); [Arwani, 2017](#)).

From the perspective of responsive regulation theory, these findings indicate that the digital licensing regulatory system in West Java has not fully implemented the principles of adaptive and responsive regulation to the dynamics of digital platforms ([Jannah, 2018](#)). The regulatory pyramid concept proposed by Ayres and Braithwaite emphasizes that an effective regulatory system must be able to flexibly shift from a persuasive to a coercive approach depending on the level of compliance of the perpetrator ([Koto et al., 2023](#)). In the context of digital licensing in West Java, this adaptability requires not only adequate legal instruments but also the technical capacity to detect and respond to violations in the fast-paced digital platform environment ([Roy Purwanto, 2016](#)).

When compared with Darus Badruzaman's study of digital intellectual property rights regulations at the national level, the findings of this study provide an important additional nuance: implementation weaknesses are multilevel and intensify with increasing distance from the center of administrative power ([Asri, 2020](#)). This finding aligns with the concept of regulatory distance developed in the public governance literature, which suggests that regulatory effectiveness tends to decline proportionally with geographic and administrative distance from the center of policymaking and implementation ([Yanto, 2015](#)). In the context of Indonesia, an archipelagic nation with 38 provinces and over 500 regencies/cities, this regulatory distance challenge is inherent and requires a planned regulatory decentralization strategy.

Regarding the determinants of effectiveness, this study found that regional regulatory human resource capacity—not national legislative completeness is the most critical factor differentiating the quality of implementation between regions ([Anwar, 2020](#)). This correlates with Pistor's findings on the concept of capital as law, which emphasizes that law is only meaningful when supported by adequate institutional capacity to implement it ([Muin & Umam, 2016](#)). In the context of digital licensing in West Java, the implication is that regulatory reforms that are not accompanied by significant investment in improving the human resource capacity of regional institutions will result in regulations that are merely symbolic, without any substantive impact on digital IPR protection at the local level.

This study also found that digital-based alternative dispute resolution (ADR) mechanisms are the most lagging component in the digital licensing regulatory ecosystem in West Java ([Jafar et al., 2019](#)). The absence of an effective and accessible ODR (Online Dispute Resolution) mechanism at the regional level creates barriers to access to justice for licensees, particularly individuals and micro-small businesses that lack the capacity to pursue conventional litigation at the Jakarta Commercial Court ([Sudrajat, 2016](#)). This finding reinforces Kaufmann-Kohler & Schultz's argument that ODR is a critical infrastructure in the digital regulatory ecosystem that is often overlooked by policymakers, and even more so at the regional government level.

Overall, this study proposes a multi-layered adaptive regulation model for regional context as a recommended policy framework ([Maulana & Nabil, 2022](#)). This model integrates three layers: the normative layer (harmonization of regional regulations with national regulations and international standards), the capacity layer (development of regional human resources and technical infrastructure for local digital intellectual property rights enforcement), and the ecosystem layer (improving digital literacy and developing accessible regional-based ODR mechanisms) ([Rofiq, 1995](#)). This model is not prescriptive-universal, but rather designed to be adaptable to the institutional context and capacity of each region in West Java, in line with the principle of comparative institutionalism proposed by Hall & Soskice (2001).

Research Limitations: This study has several limitations that should be acknowledged. First, the restriction to West Java Province limits the generalizability of the findings to other provinces with different characteristics; provinces outside Java, such as Kalimantan, Sulawesi, and Papua, likely face significantly greater challenges. Second, interview data depend on the willingness and openness of informants, so the potential for social desirability bias cannot be completely eliminated. Third, rapidly changing regulatory dynamics mean that some findings may have changed since data collection was conducted, given the relatively dynamic development of national digital policies. Fourth, this study does not explicitly analyze the impact of blockchain technology and artificial intelligence on the digital licensing framework, which is an increasingly relevant dimension for West Java's digital creative ecosystem.

Conclusion

Based on the findings of the field data, it can be concluded that this study successfully uncovered the implementation of digital licensing regulations in West Java Province, which is characterized by significant heterogeneity in institutional maturity, accessibility of IPR services, and law enforcement capacity between regional zones. Bandung City occupies the

most advanced implementation position with a composite score of 3.1 / 5, supported by a relatively mature digital creative industry ecosystem and the city government's commitment to the development of the digital economy. In contrast, rural areas of West Java are in the lowest implementation position with a score of 1.8/5, reflecting very limited accessibility of IPR services and the absence of effective digital licensing law enforcement mechanisms at the local level. The critical findings of this study confirm that the capacity of regional regulatory human resources, more than the normative completeness of national regulations, is the strongest determinant factor that differentiates the effectiveness of digital licensing implementation between regional zones in West Java.

The most pressing policy implications include: (a) the establishment of a digital IPR work unit or desk in each district/city Trade and Industry Office, equipped with technically trained human resources; (b) revision of the West Java Regional Regulation on the Creative Economy to include explicit provisions for digital license protection; and (c) the development of an ODR mechanism integrated into the West Java digital service system (Jabar Digital Service). Further research is recommended to conduct comparative studies across provinces to validate the findings of this study in a broader context. Furthermore, longitudinal studies are needed to empirically and measurably measure the impact of regulatory reform on the growth of the digital creative industry in West Java. Future research should also explore the implications of blockchain technology and artificial intelligence on digital licensing models, including smart contracts and NFTs, as new licensing instruments being adopted by young digital creators in the Bandung ecosystem. Finally, a quasi-experimental study measuring the impact of regulatory human resource capacity building programs on the effectiveness of digital licensing law enforcement in the region would provide a significant methodological contribution to the development of Indonesian IP law.

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