JURNAL PAMATOR

Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

An Integrative Model of an Artificial Intelligence (AI) Based Smart Legal Platform for the Protection of Creative Workers in Indonesia's Digital Economy Era

Marlia Hafny Afrilies[1]*, Yuris Tri Naili[2], Angie Angel Lina[3]

[1*] Universitas Harapan Bangsa, Indonesia, marliahafny@uhb.ac.id
[2] Universitas Harapan Bangsa, Indonesia, yurist@uhb.ac.id
[3] Universitas Harapan Bangsa, Indonesia, angieangellina3@gmail.com

DOI : https://doi.org/10.21107/pamator.v19i2.35094

Manuscript received 2026-06-10, Revised 2026-07-01, Published 2026-07-10

Abstract

The rapid growth of Indonesia's creative economy, driven by digital transformation, has created opportunities for creative workers while leaving them legally vulnerable, with issues including unclear employment status, inadequate contracts, and limited access to legal and social protection. The research contribution is the development of an AI-powered Smart Legal Platform to strengthen legal protection for creative workers in the digital economy, providing a scalable, modular, and inclusive legal technology solution for the creative sector. This study employs a mixed normative-empirical approach, combining legal analysis of labor regulations, intellectual property law, and social security frameworks with field data from 30 creative workers across digital subsectors. Data were collected through structured interviews, focus group discussions, and a validated survey, analyzed using validity and reliability tests. Results reveal that 85% of respondents expressed strong willingness to adopt AI-based legal services. Validity and reliability tests confirmed the instrument's robustness, identifying critical needs for automated contract creation and dispute resolution. The proposed platform integrates four features, AI-based legal consultation, automated contract creation, online dispute resolution, and BPJS integration. Respondents emphasized the need for an accessible, affordable, and user-friendly platform. The proposed model contributes theoretically to the discourse on AI in law and practically offers a replicable legal technology solution for the creative sector, with implications for policymakers and the digital labor market in alignment with SDGs 8 and 16.

Keywords: *Artificial Intelligence, Creative Work, Gig Economy, Legal Protection, Smart Legal Platform*

© Authors; This is an Open Access Research distributed under the term of the Creative Commons Attribution-ShareAlike 4.0 International License (CC BY-SA 4.0) (https://creativecommons.org/licenses/by-sa/4.0/) which allows re-distribution and re-use of a licensed work on the conditions that the creator is appropriately credited and that any derivative work is made available under "the same, similar or a compatible license".

JURNAL PAMATOR

Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

INTRODUCTION

The Fourth Industrial Revolution has significantly reshaped the global workforce structure, shifting the focus from manufacturing to a creativity-based economy.[1] In Indonesia, the creative economy has emerged as an important pillar of national development, making significant contributions to GDP, employment, and export value. This sector employs millions of people every year, leveraging intangible assets such as ideas, skills and innovation instead of traditional raw materials. Despite this rapid growth, creative workers, graphic designers, musicians, digital content creators, and others, often work in precarious working conditions. In the digital platform economy, flexible work arrangements often come with higher risks of exploitation, wage disparities, and a lack of adequate legal protections.[2] This paradox, the rapid growth of the creative economy without a corresponding increase in worker welfare, reflects a structural gap in regulation.

Three principal legal challenges underpin this problem. *First*, ambiguous employment status, many freelancers exist in a "grey area" where they are neither recognized as employees entitled to statutory employment protections, nor as independent contractors with substantial bargaining power.[3] *Second*, inadequate contract practices, research by the Media and Creative Industries Workers Union for Democracy (SINDIKASI) found that more than 18% of creative workers do not have written contracts, and even existing contracts are often violated, with many cases of underpayment or no payment at all.[4] *Third*, limited access to legal and social protection, high legal costs, complex procedures, and low legal literacy prevent workers from fighting for their rights, while the absence of social security exacerbates their vulnerability.[5] These challenges are compounded by the absence of an integrated digital solution that addresses both legal and social protection needs simultaneously

Internationally, Artificial Intelligence (AI) is increasingly adopted in the legal domain to automate contract drafting, predict case outcomes, and enhance the efficiency

[1] Nikmah Dalimunthe and Ryan Irawan, 'Pengaruh Revolusi Industri 4.0 Terhadap Keberlangsungan Buruh Di Indonesia', *JLEB: Journal of Law, Education and Business*, 2.1 (2024), 535–47 <https://doi.org/10.57235/jleb.v2i1.1894>.

[2] Imelda Indah Putri Hia, 'Implikasi Hukum Terhadap Kontrak Kerja Fleksibel, Antara Kesejahteraan Pekerja Dan Kepentingan Bisnis', *Jurnal Media Hukum Indonesia*, 2.2 (2024), 321–26 <https://doi.org/doi.org/10.5281/zenodo.11395017>.

[3] Ujang Badru Jaman and others, 'Legal Protection of Workers in Indonesia's Gig Economy for Digital Ecosystems: Challenges and Solutions in the Digital Labor Law Framework', *MAWADDAH: Jurnal Hukum Keluarga Islam*, 3.2 (2025), 231–52 <https://doi.org/doi.org/10.52496/mjhki.v3i2.22>.

[4] Serikat Pekerja Media Dan Industri Kreatif Untuk Demokrasi, 'May Day 2024: Sepuluh Tahun Tanpa Perbaikan Ekosistem Kerja Layak Bagi Pekerja Media Dan Industri Kreatif', *Blog.Sindikasi.Org*, 2024 <https://blog.sindikasi.org/may-day-2024-sepuluh-tahun-tanpa-perbaikan-ekosistem-kerja-layak-bagi-pekerja-media-dan-industri-kreatif/2> [accessed 3 September 2024].

[5] Ayulia Amanda, 'Kerentanan Kerja Pada Pekerja Harian Lepas Di Industri Kreatif Indonesia', *Journal Research of Management*, 5.2 (2024), 186–204 <https://doi.org/10.51713/jarma.2024.526>.

Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

of legal research.[6] Scherer argues that unlike human decision-makers who are constrained by preconceived notions and conventional wisdom, AI systems possess the capacity to generate unique and unforeseen solutions, making their adoption increasingly attractive across a growing variety of fields, including the legal domain.[7] In terms of labor regulation, jurisdictions such as California have enacted Assembly Bill 5 (AB5), introducing the ABC Test to reclassify gig workers as employees for employment protection purposes.[8] This analysis shows how US jurisdictions are legislatively attempting to address worker status. Similarly, the European Union has adopted Directive (EU) 2024/2831 on improving working conditions in platform work, which affirms the presumption of employment and regulates algorithmic management to safeguard platform workers.[9]

These developments align with recommendations from the Organisation for Economic Co-operation and Development (OECD) and the International Labour Organization (ILO) regarding the necessity of minimum labor protection and employment status reform for gig economy workers.[10] In Indonesia, flexible employment relationships can be linked to Fixed-Term Employment Agreements (PKWT) and Daily Casual Work Agreements, as stipulated in the Manpower Law and Minister of Manpower Decree Number 100 of 2004. Freelance and remote workers can still be considered part of an employment relationship, as long as they fulfill the elements of orders, work, and wages.[11] However, in practice, the legal status of these two types of workers is often informal, as they are often not bound by written agreements, creating legal uncertainty for workers.

Despite these international developments, the adoption of AI-powered legal services targeting creative workers in Indonesia remains minimal. To date, no integrated platform exists that simultaneously addresses legal consultation, automated contract creation, online dispute resolution, and social security integration for creative sector workers. This gap is particularly critical given the scale of Indonesia's informal creative workforce and

[6] Ahad Abdul Majeed, 'The Role of Artificial Intelligence in Corporate Law.', *International Journal of Legal Science and Innovation*, 7.2 (2025), 301–11 <https://doi.org/https://doij.org/10.10000/IJLSI.112528>.

[7] Matthew U. Scherer, 'Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies, and Strategies', *Harvard Journal of Law & Technology*, 39.2 (2016), 353–400 <https://jolt.law.harvard.edu/assets/articlePDFs/v29/29HarvJLTech353.pdf>.

[8] California State Legislature, *Worker Status: Employees and Independent Contractors (California Assembly Bill 5)* (State of California, 2019), pp. 1–119 <https://www.labor.ca.gov/ab5-statute/>.

[9] European Parliament and Council of the European Union, *Directive (EU) 2024/2831 of the European Parliament and of the Council of 23 October 2024 on Improving Working Conditions in Platform Work*, 2024 <https://eur-lex.europa.eu/eli/dir/2024/2831/oj/eng>.

[10] Alwan Setiawan, 'Reforming Gig Economy in Indonesia: A Sustainable Model to Support 8% Economic Growth', *SMEs and Sustainability Journal*, 1.1 (2025), 1–22 <https://journal.apindo.or.id/assj/article/view/64>.

[11] Mariana Mugiono and Astrid Athina Indradewi, 'Perlindungan Hukum Terhadap Hak-Hak Pekerja Freelance Dan Remote-Working Dalam Hukum Ketenagakerjaan Indonesia', *QISTIE*, 18.1 (2025), 31–45 <https://doi.org/10.31942/jqi.v18i1.12652>.

Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

the structural barriers they face in accessing justice. The absence of such a solution further widens the justice gap, particularly for informal sector and gig economy workers operating in the digital economy

This research seeks to address these identified gaps by developing an integrative, AI-powered Smart Legal Platform model specifically designed to strengthen legal protection for creative workers in Indonesia's digital economy. Theoretically, this study contributes to the scholarly discourse on the intersection of artificial intelligence, legal technology, and labor law, particularly in the context of the gig economy and the creative sector in a developing country setting. It extends existing frameworks of AI adoption in legal services by proposing a modular and context-sensitive model tailored to the unique legal vulnerabilities of informal creative workers.

Practically, the proposed platform offers a scalable, accessible, and inclusive legal technology solution that integrates four core features, AI-based legal consultation, automated contract creation, online dispute resolution, and integration with Indonesia's national social security system (BPJS). The findings of this study are expected to inform policymakers, platform operators, labor advocates, and creative industry stakeholders in designing more equitable digital labor ecosystems, in alignment with the Sustainable Development Goals (SDGs) 8 (Decent Work and Economic Growth) and 16 (Peace, Justice, and Strong Institutions).

METHODOLOGY

This study employs a mixed-methods research design that integrates normative legal analysis with empirical fieldwork to comprehensively examine legal protection for creative workers in Indonesia's digital economy.[12] The normative component systematically reviews the existing legal framework governing creative workers, encompassing employment law, intellectual property law, and social security regulations.[13] The empirical component collects primary data to assess the needs, challenges, and adoption potential of an AI-powered Smart Legal Platform among creative workers.[14] Additionally, this research incorporates design science methodology in platform development, applying Agile Software Development principles to ensure iterative prototyping and continuous integration of user feedback throughout the design process. [15] The following is a research flowchart used as depicted in Figure 1.

[12] Alysia Blackham, 'When Law and Data Collide: The Methodological Challenge of Conducting Mixed Methods Research in Law', *Journal of Law and Society*, 49.S1 (2022), 87–104 <https://doi.org/10.1111/jols.12373>.

[13] Peter Mahmud Marzuki, *Penelitian Hukum* (Jakarta: Kencana, 2008).

[14] Michael Hans and Cynthia Prastika Limantara, 'Menyoal Aspek Hak Cipta Atas Karya Hasil Artificial Intelligence', *Hukumonline*, 2023 <https://www.hukumonline.com/berita/a/menyoal-aspek-hak-cipta-atas-karya-hasil-artificial-intelligence-lt641d06ea600d9/> [accessed 27 March 2026].

[15] Abdul Rahman Ismail, 'Penerapan Metode Agile Pada Perancangan Sistem Informasi Pengajuan Nomor Surat Di Pemerintahan Desa', *Jurnal Teknologi Dan Sistem Informasi Bisnis*, 7.2 (2025), 284–89 <https://doi.org/10.47233/jteksis.v7i2.1927>.

JURNAL PAMATOR
Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

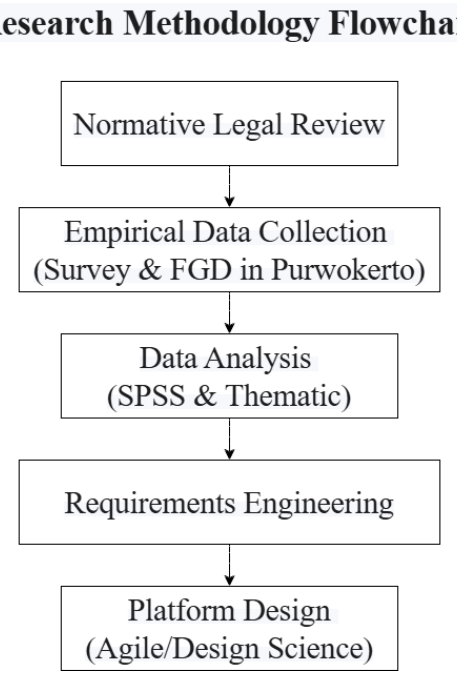


Figure 1. Research Methodology Flowchart

Primary data were collected from 30 creative workers in Purwokerto and the surrounding area, selected through purposive sampling to capture diverse perspectives across digital economy subsectors, including graphic design, content creation, photography, and music production. The sample encompassed freelancers, micro-business owners, and gig platform workers. Quantitative data were gathered using a structured questionnaire covering legal awareness, contractual practices, and social protection status, while qualitative data were obtained through semi-structured interviews and focus group discussions (FGDs).[16]

Data analysis was conducted through two complementary approaches. Quantitative data were processed using SPSS 26, employing Pearson correlation for validity testing and Cronbach's Alpha for reliability assessment.[17] Qualitative data were analyzed through thematic coding to identify recurring legal issues, user needs, and desired platform features. The findings from both analyses were subsequently synthesized through requirements engineering to inform the design specifications of the proposed Smart Legal Platform, ensuring that the platform architecture is grounded in both legal compliance and user-centered design principles.

[16] David Tan, 'Metode Penelitian Hukum: Mengupas Dan Mengulas Metodologi Dalam Menyelenggarakan Penelitian Hukum', *Jurnal Nusantara*, 8.8 (2021) <https://doi.org/https://doi.org/10.31604/jips.v8i8.2021.2463-2478>.

[17] Fitria Dewi Puspita Anggraini and others, 'Pembelajaran Statistika Menggunakan Software SPSS Untuk Uji Validitas Dan Reliabilitas', *Jurnal Basicedu*, 6.4 (2022), 6491–6504 <https://doi.org/10.31004/basicedu.v6i4.3206>.

JURNAL PAMATOR
Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

RESULT AND DISCUSSION

Legal Vulnerability, Technology Adoption Readiness, and the Scientific Basis for an AI-Powered Smart Legal Platform for Creative Workers

This study reveals significant gaps in legal protection among creative workers operating within Indonesia's digital economy. Survey results from 30 respondents across various digital subsectors demonstrate that, while 73% of participants acknowledged the importance of written contracts, only 62% actually employed them in practice, indicating a substantial disconnect between legal awareness and legal behavior. More critically, only 48% of respondents were aware of their eligibility for social security coverage under BPJS, reflecting systemic deficiencies in both legal literacy and institutional outreach. Furthermore, 55% of respondents reported having experienced payment disputes, underscoring the acute vulnerability of creative workers to contractual violations and wage exploitation. Notwithstanding these challenges, 85% of respondents expressed a strong willingness to adopt AI-based legal services, signaling robust market readiness and demand for technology-enabled legal solutions.

Table 1: Summary of Survey Results

No	Indicator	% Agree	Interpretation
1	Understanding the importance of contracts	73%	Medium awareness
2	Use of written contracts	62%	Many still work without contracts
3	Awareness about BPJS (social security)	48%	Low awareness
4	Payment dispute experience	55%	High vulnerability
5	Willingness to use AI-based legal services	85%	Strong market potential

Source: Field Survey, 2025.

To ensure the robustness of these quantitative findings, validity and reliability tests were conducted on the survey instrument. All questionnaire items demonstrated validity, with item-total correlation values (r-count) ranging from 0.363 to 0.873, exceeding the r-table threshold of 0.361 ($\alpha = 5\%$, $n = 30$). Reliability testing using Cronbach's Alpha confirmed the consistency of all four construct categories, with alpha values ranging from 0.784 to 0.886, each surpassing the accepted threshold of 0.70. These results confirm that the instrument possesses a high level of psychometric soundness and is suitable for measuring respondents' perceptions and expectations regarding digital legal platform development.

JURNAL PAMATOR
Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

Table 2: Validity and Reliability Test Results

Question Categories	Number of Items	Value Range r-count	Conbranch's Alpha Value	Conclusion
Knowledge & Experience of Creative Workers	7	0.363 - 0.577	0.784	Valid & Reliable
The Need for Legal Protection for Creative Workers	6	0.573 - 0.873	0.886	Valid & Reliable
The Effectiveness of Smart Legal on Digital Platforms	5	0.427 - 0.681	0.802	Valid & Reliable
Hopes for Legal Protection Technology	6	0.499 - 0.753	0.858	Valid & Reliable

Source: Field Survey, 2025.

The findings of this study are consistent with broader global literature on legal vulnerability within the gig and creative economies. The low rate of written contract adoption (62%) and limited social security awareness (48%) reflect systemic weaknesses documented in comparable developing economies, where informal creative work predominates and institutional support remains fragmented. These findings align with reports from the ILO and OECD, which identify inadequate employment classification and social protection coverage as defining characteristics of platform-based labor markets across the Global South.[18]

From a regulatory standpoint, the grey area in employment classification identified in this study, wherein creative workers fall between the categories of independent contractor and formal employee, mirrors challenges encountered in other jurisdictions prior to legislative reform. California's enactment of Assembly Bill 5 (AB5, 2019),[19] which introduced the ABC Test to reclassify qualifying gig workers as employees, and the European Union's adoption of Directive (EU) 2024/2831 on platform work,[20] both represent legislative efforts to extend statutory labor protections without eliminating contractual flexibility. Indonesia has yet to adopt analogous reforms, and this regulatory absence constitutes one of the most pressing structural gaps identified in this research.

The high willingness to adopt AI-based legal services (85%) can be explained through Technology Acceptance Model (TAM) principles, wherein perceived usefulness and ease

[18] Setiawan.

[19] California State Legislature.

[20] European Parliament and Council of the European Union.

JURNAL PAMATOR
Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

of use are the primary determinants of technology adoption intention.[21] Creative workers, who are generally digitally literate and accustomed to platform-mediated workflows, are predisposed to embrace technological solutions that reduce transaction costs associated with accessing legal services. The gap between legal awareness (73%) and actual contract usage (62%), meanwhile, is best explained through legal consciousness theory, which posits that awareness of legal norms does not automatically translate into legal behavior when structural barriers, including cost, complexity, and lack of accessible mechanisms, remain prohibitive.[22]

The low awareness of BPJS (48%) is further explicable through information asymmetry theory: creative workers operating outside formal employment structures are systematically excluded from institutional channels through which social security information is typically disseminated. The prevalence of payment disputes (55%) reinforces findings from labor economics regarding monopsony power in platform-mediated labor markets, where platforms and clients retain disproportionate bargaining leverage over individual creative workers.

The proposed Smart Legal Platform addresses these dynamics through an integrated four-module architecture: AI-based legal consultation powered by Natural Language Processing (NLP), automated contract creation with compliance verification, online dispute resolution (ODR) incorporating mediation and arbitration functionalities, and direct BPJS integration for social security registration and contribution tracking. The platform's architecture incorporates privacy-by-design principles,[23] Role-Based Access Control (RBAC), data encryption at rest and in transit, and a Human-in-the-Loop (HITL) mechanism whereby low-confidence AI outputs are automatically escalated for human expert review prior to delivery.

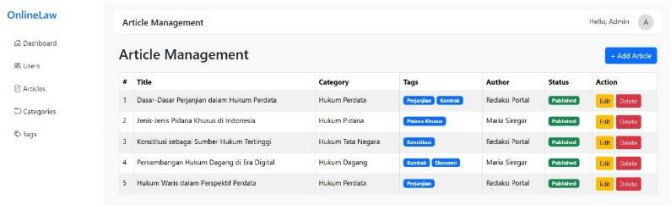


Figure 2. Integrated Smart Legal Platform Model

[21] Moh Hadi Subowo, 'Pengaruh Prinsip Technology Acceptance Model (TAM) Terhadap Kepuasan Pelanggan Aplikasi Ojek Online Xyz', *Walisongo Journal of Information Technology*, 2.2 (2020), 79 <https://doi.org/10.21580/wjit.2020.2.2.6939>.

[22] Kharisma Meidiana Putri, 'Eksistensi Kesadaran Hukum Yang Tumbuh Dan Berkembang Di Masyarakat', *De Cive : Jurnal Penelitian Pendidikan Pancasila Dan Kewarganegaraan*, 4.1 (2024), 19–27 <https://doi.org/10.56393/decive.v4i1.2062>.

[23] Dewan Perwakilan Rakyat dan Presiden Republik Indonesia, *Undang-Undang Tentang Pelindungan Data Pribadi* (Indonesia, 2022).

JURNAL PAMATOR
Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

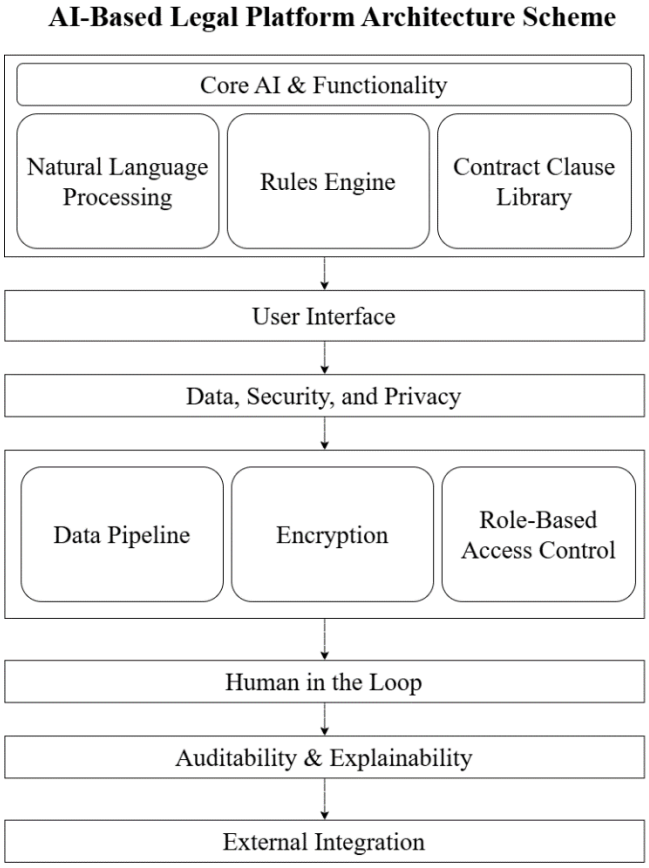


Figure 3. AI-Based Legal Platform Architecture Scheme

This holistic design distinguishes the proposed model from existing legal technology solutions, which tend to specialize exclusively in contract automation or legal information dissemination, without integrating social protection functionalities. By embedding social security registration within the platform interface, this model simultaneously addresses both immediate contractual vulnerabilities and long-term worker welfare deficits.

Regional Development Implications: The Case of Banyumas Regency

The findings of this study carry significant relevance to the regional development agenda of Banyumas Regency, particularly in light of prevailing labor market conditions and economic competitiveness challenges. Data from the National Labor Force Survey (Sakernas) of August 2024 reveal that the workforce structure in Banyumas is dominated by formal wage employees (37.49%), followed by own-account workers (26.44%) and unpaid family workers (11.12%).[24] Notably, a substantial proportion of the workforce operates as free workers in non-agricultural sectors (7.20%) and as employers assisted by temporary or unpaid laborers (11.61%), indicating a high concentration of informal and semi-formal employment arrangements that are structurally analogous to the gig and

[24] Badan Pusat Statistik Kabupaten Banyumas, *Profil Ketenagakerjaan Kabupaten Banyumas: Hasil Sakernas Agustus 2024* (Banyumas, 2025) <https://banyumaskab.bps.go.id/id/publication/2025/07/01/a28acce435bbb8ecb70fe251/employment-profile-of-banyumas-regency-the-result-of-sakernas-on-august-2024.html>.

Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

creative economy workers examined in this study. These workers largely operate outside formal contractual frameworks and social security coverage, mirroring the legal vulnerabilities identified in the survey findings of this research.

This structural profile is further compounded by Banyumas Regency's failure to achieve its Regional Competitiveness Index (IDSD) target of 4.03 in 2025, with actual realization reaching only 3.95.[25] The shortfall was primarily driven by declining performance across five key pillars: Infrastructure, Skills, Market Products, Labor Market, and Business Dynamics. Of particular relevance to this study, the Skills Pillar underperformance reflects a persistent competency gap between the existing workforce and the demands of the modern economy, while the Labor Market Pillar decline indicates suboptimal labor absorption and limited flexibility in employment creation. The Business Dynamics Pillar deterioration further signals that the entrepreneurial and creative economy ecosystem in Banyumas remains underdeveloped. These systemic deficiencies underscore the urgency of developing accessible, technology-enabled legal infrastructure that can support creative workers, micro-entrepreneurs, and informal sector participants in strengthening their legal standing and economic resilience.

From a sectoral development perspective, research utilizing Location Quotient (LQ) analysis across 11 business fields in Banyumas from 2018 to 2022 identifies a notable structural shift in the regency's leading sectors.[26] While agriculture, livestock, and fisheries have historically constituted the primary base sector, technological development and climate variability have driven a sectoral transition toward manufacturing industry, construction, and information and communication technology (ICT) as the new prima sectors under Klassen Typology classification. The information and communication sector, classified as a prima sector, represents the most direct convergence with the digital creative economy. Workers in this sector, including graphic designers, content creators, digital marketers, and software developers, constitute the primary target population of the proposed Smart Legal Platform. The platform's development thus aligns strategically with Banyumas Regency's own economic trajectory toward a digitally-driven economy.

From a legal and regulatory standpoint, Banyumas Regency has demonstrated a proactive commitment to extending social protection to vulnerable workers through the enactment of a Bupati Regulation on Guidelines for the Implementation of Employment Social Security for Vulnerable Workers in Banyumas Regency (Peraturan Bupati Banyumas Tahun 2024). Article 2 of this regulation explicitly states that its purpose is to guarantee non-wage workers classified as vulnerable workers against the risks of occupational accidents and death. Article 4 paragraph (1) specifies two forms of social security coverage provided: occupational accident insurance and death insurance. Article 5 paragraph (2) enumerates the categories of vulnerable workers covered, including

[25] Badan Pusat Statistik Kabupaten Banyumas, *Laporan Kinerja Instansi Pemerintah Kabupaten Banyumas Tahun 2025* (Banyumas, 2025) <https://static.banyumaskab.go.id/website/file/lkjip_pemkab_banyumas_tahun_2025_070426075855.pdf>.

[26] Maulida Dewi Pangestika, 'Identifikasi Sektor Unggulan Dalam Meningkatkan Ekonomi Daerah Di Kabupaten Banyumas', *Jurnal STIE Semarang (Edisi Elektronik)*, 15.3 (2023), 54–64 <https://doi.org/10.33747/stiesmg.v15i3.644>.

Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

agricultural laborers (buruh tani), palm sugar tappers (penderes), workers with disabilities, social volunteers, and other vulnerable workers as determined by the Regent.

Notably, the current regulatory framework explicitly covers traditional and agriculture-based vulnerable workers, yet does not extend to digital creative workers, freelancers, or gig economy participants who face structurally equivalent vulnerabilities in the digital labor market. This regulatory gap is precisely the gap that the proposed Smart Legal Platform seeks to address. By integrating BPJS registration and contribution tracking functionalities within the platform, this study proposes a practical mechanism through which creative workers in Banyumas, who currently fall outside the enumerated categories of the Bupati Regulation, can access social security protection commensurate with their risk profile. This finding reinforces the call for regulatory expansion at both the local and national level to formally recognize digital creative workers as a category of vulnerable workers entitled to equivalent statutory protection.

Furthermore, the regional minimum wage (UMR) in Banyumas for 2025 is set at IDR 2,474,599, representing an increase from IDR 2,338,410 in the previous year.[27] However, as the survey findings of this study indicate, 55% of creative workers have experienced payment disputes, with many receiving wages below or in violation of contractual agreements. The existence of a regional minimum wage standard without an effective enforcement mechanism for informal and creative sector workers further demonstrates the need for accessible, low-cost dispute resolution infrastructure, precisely the function served by the Online Dispute Resolution (ODR) module of the proposed platform. The alignment of this study with the regional development agenda of Banyumas Regency is further evidenced by the Research and Development Program of Bappedalitbang Kabupaten Banyumas for the period 2024–2026. The program document explicitly identifies several research and development priorities under the Regional Research and Development Program, including research in the fields of social aspects, education and culture, tourism, health, and labor.[28] The inclusion of labor research as an explicit priority domain affirms the strategic relevance of this study to the regency's policy research agenda.

[27] Badan Pusat Statistik Kabupaten Banyumas, *Kabupaten Banyumas Dalam Angka 2026* (Banyumas, 2026) <https://banyumaskab.bps.go.id/id/publication/2026/02/27/4e4f855322bf9f80022acafb/banyumas-regency-in-figures-2026.html>.

[28] Badan Perencanaan Pembangunan Penelitian dan Pengembangan Daerah Kabupaten Banyumas, *Rencana Strategis Badan Perencanaan Pembangunan Penelitian Dan Pengembangan Daerah Kabupaten Banyumas Tahun 2024-2026* (Banyumas, 2023) <https://static.banyumaskab.go.id/website/file/website_3005241031346657f3164f802.pdf>.

JURNAL PAMATOR
Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

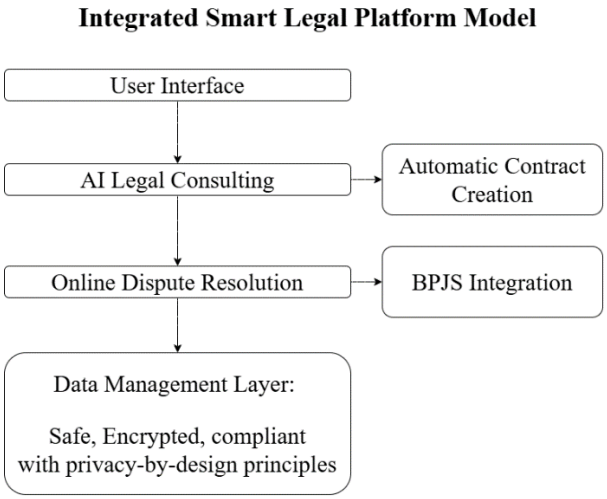


Figure 4. Integrated Smart Legal Platform Model

This research contributes directly to the labor research priority by providing an empirically grounded model for enhancing worker legal literacy, improving access to social protection, and strengthening contractual governance for informal and creative sector workers in the region. More broadly, the educational dimension of the proposed platform, particularly the AI-based legal consultation module, which delivers accessible legal information in plain language, addresses the documented gap in legal literacy identified in the survey findings (where only 73% of respondents demonstrated awareness of contract importance, and fewer than half were aware of their BPJS eligibility). The platform thus functions not merely as a legal service tool but as a legal education infrastructure, capable of raising legal consciousness among the creative workforce in alignment with regional human capital development priorities. The platform contributes to the strengthening of multiple pillars of the Regional Competitiveness Index, particularly the Skills Pillar, Labor Market Pillar, and Business Dynamics Pillar, whose underperformance was identified as the primary driver of the regency's failure to achieve its 2025 IDSD target.

Table 3: Research Roadmap

Year / Stage	Activities	Outputs
Year 1	Legal framework review; stakeholder mapping; survey & focus group discussions (FGDs)	Needs analysis report; identification of legal protection gaps
Year 2	Platform prototype development; AI training for legal chatbot (NLP); integration with BPJS API	Minimum Viable Product (MVP)
Year 3	Pilot implementation with creative worker groups; monitoring & evaluation	Pilot impact report; policy recommendations
Year 4+	Expansion to the national level; cross-sectoral adaptation	National implementation strategy

Source: Field Survey, 2025.

Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

This study presents several notable strengths. The application of a mixed normative-empirical research design ensures that the proposed platform model is grounded in both legal compliance requirements and real-world user needs, enhancing its practical relevance and applicability. The integration of design science methodology with Agile development principles further strengthens the platform's iterative responsiveness to user feedback. The validated survey instrument, with Cronbach's Alpha values ranging from 0.784 to 0.886, provides a reliable empirical foundation for the study's quantitative conclusions. Additionally, this research offers one of the first integrative AI-powered legal platform models specifically tailored to the creative sector in Indonesia, addressing a significant gap in both the academic literature and policy landscape.

Nevertheless, several limitations must be acknowledged. The sample size of 30 respondents, while sufficient for exploratory purposes and instrument validation, limits the generalizability of the findings to Indonesia's broader creative worker population. The geographic concentration of respondents in Purwokerto and surrounding areas may not fully represent the diverse socio-economic and legal conditions of creative workers in metropolitan centers such as Jakarta, Surabaya, or Bandung. Furthermore, the proposed platform currently exists as a conceptual model; empirical evaluation of its operational effectiveness, user experience, and impact on legal outcomes awaits pilot implementation. Future research should therefore prioritize larger-scale sampling, cross-regional validation, and longitudinal assessment of the platform's impact on workers' legal security and income stability.

CONCLUSION

This study demonstrates that creative workers in Indonesia's digital economy face multidimensional legal vulnerabilities that existing regulatory frameworks have failed to adequately address. Empirical findings from a validated survey of 30 creative workers in Banyumas Regency confirm that only 62% employed written contracts, fewer than half (48%) were aware of their BPJS social security eligibility, and 55% had experienced payment disputes. The robustness of these findings is supported by strong psychometric results, with Cronbach's Alpha values ranging, affirming the reliability and validity of the survey instrument. Critically, respondents expressed strong willingness to adopt AI-based legal services, signaling substantial market readiness for technology-enabled legal solutions. These findings are further contextualized by regional development data reveals a high concentration of informal and semi-formal workers structurally analogous to the creative workers studied, while the regency's failure to meet its 2025 Regional Competitiveness Index (IDSD) target, driven by underperformance in the Skills, Labor Market, and Business Dynamics pillars, underscores the structural urgency of accessible legal infrastructure. The existing Bupati Regulation on social security for vulnerable workers, while progressive, does not extend coverage to digital creative workers, reinforcing the need for both regulatory expansion and a technology-mediated solution aligned with Bappedalitbang Banyumas's Research and Development Program priorities for 2024–2026.

In response to these identified gaps, this study proposes a Smart Legal Platform integrating four core modules: AI-based legal consultation powered by Natural Language Processing (NLP), automated contract creation with compliance verification, online dispute resolution (ODR), and direct BPJS integration for social security registration and tracking. The platform architecture incorporates privacy-by-design principles, Role-

Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

Based Access Control (RBAC), data encryption, and a Human-in-the-Loop (HITL) mechanism to ensure legal accuracy and ethical accountability. This integrated design distinguishes the proposed model from existing legal technology, which tend to address singular aspects of legal service delivery without incorporating social protection functionalities. The platform further addresses the legal literacy gap documented in the survey findings, wherein only 73% of respondents demonstrated awareness of contract importance, positioning the platform not merely as a legal service tool but as a legal education infrastructure capable of raising legal consciousness among the creative workforce.

Nevertheless, several limitations must be acknowledged: the sample size of 30 respondents, while sufficient for exploratory and validation purposes, restricts the generalizability of findings to Indonesia's broader creative worker population, and the geographic concentration of respondents in Purwokerto and surrounding areas may not fully represent the diverse socio-economic and legal conditions of creative workers in major metropolitan centers such as Jakarta, Surabaya, or Bandung; furthermore, the proposed platform remains at the conceptual stage, pending empirical evaluation of its operational effectiveness, user experience, and measurable impact on legal outcomes. Future research should therefore prioritize larger-scale and geographically diverse sampling, pilot implementation of the platform across multiple creative economy subsectors, cross-regional validation of the proposed model, and longitudinal assessment of the platform's sustained impact on workers' legal security, contractual compliance, and income stability, while policymakers are encouraged to integrate such platforms into national digital transformation and labor protection strategies in alignment with Sustainable Development Goals 8 (Decent Work and Economic Growth) and 16 (Peace, Justice, and Strong Institutions).

ACKNOWLEDGEMENT

This research was funded by the Directorate General of Higher Education, Research, and Technology, Ministry of Higher Education, Science, and Technology of the Republic of Indonesia under the 2025 National Competitive Research Grant Program for the project entitled *"Artificial Intelligence-Based Smart Legal Platform Model for the Legal Protection of Creative Workers in the Digital Economy Era."* The authors sincerely acknowledge this financial support.

BIBLIOGRAPHY

Amanda, Ayulia, ‘Kerentanan Kerja Pada Pekerja Harian Lepas Di Industri Kreatif Indonesia’, *Journal Research of Management*, 5 (2024), 186–204 https://doi.org/10.51713/jarma.2024.526

Anggraini, Fitria Dewi Puspita, Aprianti Aprianti, Vilda Ana Veria Setyawati, and Agnes Angelia Hartanto, ‘Pembelajaran Statistika Menggunakan Software SPSS Untuk Uji Validitas Dan Reliabilitas’, *Jurnal Basicedu*, 6 (2022), 6491–6504 https://doi.org/10.31004/basicedu.v6i4.3206

Badan Perencanaan Pembangunan Penelitian dan Pengembangan Daerah Kabupaten Banyumas, *Rencana Strategis Badan Perencanaan Pembangunan Penelitian Dan Pengembangan Daerah Kabupaten Banyumas Tahun 2024-2026* (Banyumas, 2023) https://static.banyumaskab.go.id/website/file/website_3005241031346657f3164f80

Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

2.pdf

Badan Pusat Statistik Kabupaten Banyumas, *Kabupaten Banyumas Dalam Angka 2026* (Banyumas, 2026) https://banyumaskab.bps.go.id/id/publication/2026/02/27/4e4f855322bf9f80022acafb/banyumas-regency-in-figures-2026.html

———, *Laporan Kinerja Instansi Pemerintah Kabupaten Banyumas Tahun 2025* (Banyumas, 2025) https://static.banyumaskab.go.id/website/file/lkjip_pemkab_banyumas_tahun_2025_070426075855.pdf

———, *Profil Ketenagakerjaan Kabupaten Banyumas: Hasil Sakernas Agustus 2024* (Banyumas, 2025) https://banyumaskab.bps.go.id/id/publication/2025/07/01/a28acce435bbb8ecb70fe251/employment-profile-of-banyumas-regency-the-result-of-sakernas-on-august-2024.html

Blackham, Alysia, 'When Law and Data Collide: The Methodological Challenge of Conducting Mixed Methods Research in Law', *Journal of Law and Society*, 49 (2022), 87–104 https://doi.org/10.1111/jols.12373

California State Legislature, *Worker Status: Employees and Independent Contractors (California Assembly Bill 5)* (State of California, 2019), pp. 1–119 https://www.labor.ca.gov/ab5-statute/

Dalimunthe, Nikmah, and Ryan Irawan, 'Pengaruh Revolusi Industri 4.0 Terhadap Keberlangsungan Buruh Di Indonesia', *JLEB: Journal of Law, Education and Business*, 2 (2024), 535–47 https://doi.org/10.57235/jleb.v2i1.1894>

Dewan Perwakilan Rakyat dan Presiden Republik Indonesia, *Undang-Undang Tentang Pelindungan Data Pribadi* (Indonesia, 2022)

European Parliament and Council of the European Union, *Directive (EU) 2024/2831 of the European Parliament and of the Council of 23 October 2024 on Improving Working Conditions in Platform Work*, 2024 https://eur-lex.europa.eu/eli/dir/2024/2831/oj/eng

Hans, Michael, and Cynthia Prastika Limantara, 'Menyoal Aspek Hak Cipta Atas Karya Hasil Artificial Intelligence', *Hukumonline*, 2023 https://www.hukumonline.com/berita/a/menyoal-aspek-hak-cipta-atas-karya-hasil-artificial-intelligence-lt641d06ea600d9/ [accessed 27 March 2026]

Hia, Imelda Indah Putri, 'Implikasi Hukum Terhadap Kontrak Kerja Fleksibel, Antara Kesejahteraan Pekerja Dan Kepentingan Bisnis', *Jurnal Media Hukum Indonesia*, 2 (2024), 321–26 https://doi.org/doi.org/10.5281/zenodo.11395017

Ismail, Abdul Rahman, 'Penerapan Metode Agile Pada Perancangan Sistem Informasi Pengajuan Nomor Surat Di Pemerintahan Desa', *Jurnal Teknologi Dan Sistem Informasi Bisnis*, 7 (2025), 284–89 https://doi.org/10.47233/jteksis.v7i2.1927

Jaman, Ujang Badru, Endah Pertiwi, Norless Zibele Nodangala, William Manga Mokkofe, and Muhammad Rizki Abdul Malik, 'Legal Protection of Workers in Indonesia's Gig Economy for Digital Ecosystems: Challenges and Solutions in the Digital Labor Law Framework', *MAWADDAH: Jurnal Hukum Keluarga Islam*, 3 (2025), 231–52 https://doi.org/doi.org/10.52496/mjhki.v3i2.22

Vol. 19, No. 2, 2026 pp. 171 -186
https://journal.trunojoyo.ac.id/pamator
ISSN 2654-7856 (Online)
ISSN 1829-7935 (Print)

Majeed, Ahad Abdul, 'The Role of Artificial Intelligence in Corporate Law.', *International Journal of Legal Science and Innovation*, 7 (2025), 301–11 https://doi.org/https://doij.org/10.10000/IJLSI.112528

Marzuki, Peter Mahmud, *Penelitian Hukum* (Jakarta: Kencana, 2008)

Mugiono, Mariana, and Astrid Athina Indradewi, 'Perlindungan Hukum Terhadap Hak-Hak Pekerja Freelance Dan Remote-Working Dalam Hukum Ketenagakerjaan Indonesia', *QISTIE*, 18 (2025), 31–45 https://doi.org/10.31942/jqi.v18i1.12652

Pangestika, Maulida Dewi, 'Identifikasi Sektor Unggulan Dalam Meningkatkan Ekonomi Daerah Di Kabupaten Banyumas', *Jurnal STIE Semarang (Edisi Elektronik)*, 15 (2023), 54–64 https://doi.org/10.33747/stiesmg.v15i3.644

Putri, Kharisma Meidiana, 'Eksistensi Kesadaran Hukum Yang Tumbuh Dan Berkembang Di Masyarakat', *De Cive : Jurnal Penelitian Pendidikan Pancasila Dan Kewarganegaraan*, 4 (2024), 19–27 https://doi.org/10.56393/decive.v4i1.2062

Scherer, Matthew U., 'Regulating Artificial Intelligence Systems: Risks, Challenges, Competencies, and Strategies', *Harvard Journal of Law & Technology*, 39 (2016), 353–400 https://jolt.law.harvard.edu/assets/articlePDFs/v29/29HarvJLTech353.pdf

Serikat Pekerja Media Dan Industri Kreatif Untuk Demokrasi, 'May Day 2024: Sepuluh Tahun Tanpa Perbaikan Ekosistem Kerja Layak Bagi Pekerja Media Dan Industri Kreatif', *Blog.Sindikasi.Org*, 2024 https://blog.sindikasi.org/may-day-2024-sepuluh-tahun-tanpa-perbaikan-ekosistem-kerja-layak-bagi-pekerja-media-dan-industri-kreatif/2 [accessed 3 September 2024]

Setiawan, Alwan, 'Reforming Gig Economy in Indonesia: A Sustainable Model to Support 8% Economic Growth', *SMEs and Sustainability Journal*, 1 (2025), 1–22 https://journal.apindo.or.id/assj/article/view/64

Subowo, Moh Hadi, 'Pengaruh Prinsip Technology Acceptance Model (TAM) Terhadap Kepuasan Pelanggan Aplikasi Ojek Online Xyz', *Walisongo Journal of Information Technology*, 2 (2020), 79 https://doi.org/10.21580/wjit.2020.2.2.6939

Tan, David, 'Metode Penelitian Hukum: Mengupas Dan Mengulas Metodologi Dalam Menyelenggarakan Penelitian Hukum', *Jurnal Nusantara*, 8 (2021) https://doi.org/https://doi.org/10.31604/jips.v8i8.2021.2463-2478