



The Concept of “Regulation by Insurance” from an Indonesian Legal Perspective: A Study on the Effectiveness of Insurance as a Modern Risk Management Tool

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Abstract

This article examines the evolving concept of “regulation by insurance” within the Indonesian legal system, addressing the central problem of whether insurance can function effectively as a modern regulatory instrument beyond its traditional role as a contractual risk transfer mechanism. The study identifies a doctrinal gap in Indonesian law, particularly under Law No. 40 of 2014 on Insurance, which has not explicitly recognized the regulatory capacity of insurance despite its practical influence on behavior through underwriting standards, premium differentiation, and contractual obligations. This research employs a normative legal methodology, incorporating doctrinal and comparative approaches through the analysis of statutory regulations, legal principles, scholarly doctrines, and comparative legal frameworks to construct a comprehensive understanding of insurance as a governance tool. The findings reveal that insurance in Indonesia possesses latent regulatory characteristics that align with global developments, yet remains fragmented and insufficiently articulated within the legal framework. The discussion demonstrates that technological advancements such as insurtech and blockchain, alongside risk management theory and ethical models such as takaful, further reinforce the regulatory potential of insurance while simultaneously exposing normative and institutional limitations. The study concludes that a doctrinal reconstruction is necessary to formally integrate insurance as a hybrid regulatory regime within Indonesian law, thereby enhancing its effectiveness in addressing complex and modern risk environments.

Keywords : *Blockchain, governance, insurance, regulation, risk.*



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INTRODUCTION

The contemporary evolution of global regulatory governance reflects a discernible shift from state-centric command-and-control mechanisms toward more hybridized and market-mediated forms of regulation, wherein private actors increasingly assume quasi-regulatory functions in managing complex and systemic risks. Within this trajectory, the concept of “regulation by insurance” has gained prominence as an analytical lens through which insurance is no longer confined to its traditional indemnificatory role but is reconceptualized as an institutional mechanism capable of shaping risk-related behavior through economic incentives, contractual conditions, and actuarial assessments. This transformation is particularly salient in the context of emerging global risks such as climate change, cyber threats, and artificial intelligence where conventional legal instruments often lag behind the pace of technological and socio-economic change, thereby necessitating adaptive and decentralized regulatory strategies (Oh, Sen, & Tenekedjieva, 2021; Pantos, 2024).

The increasing reliance on insurance-based mechanisms to internalize externalities and distribute risk burdens underscores the growing recognition of insurance as a governance tool embedded within broader regulatory ecosystems. Existing scholarship has extensively examined the functional dimensions of insurance as a risk management instrument, emphasizing its role in stabilizing financial systems, enhancing organizational resilience, and mitigating uncertainty across diverse sectors. Empirical and doctrinal studies have demonstrated that risk transfer to insurance institutions contributes significantly to corporate financial stability and operational continuity, particularly in environments characterized by volatility and systemic exposure (Prasetia et al., 2026; Ronaldo, 2024).

Parallel inquiries into the effectiveness of insurance products both conventional and Islamic (*takaful*) have revealed nuanced dynamics in risk-sharing efficiency, governance structures, and financial protection outcomes, suggesting that insurance mechanisms operate not merely as passive financial safeguards but as active determinants of risk behavior and institutional discipline (Abu Al-Haija & Houcine, 2024; Dwianasari et al., 2025). Furthermore, sector-specific analyses, including studies on employee insurance schemes and credit insurance management, indicate that insurance frameworks can influence organizational decision-making processes and risk mitigation strategies in a manner akin to regulatory oversight (Oktavia et al., 2025; Salamah & Prihastiwi, 2025).

Despite these advances, the prevailing literature remains fragmented in its conceptualization of insurance as a regulatory modality, often treating its governance implications as incidental rather than constitutive. Much of the existing discourse continues to frame insurance within the orthodox paradigm of financial protection, thereby overlooking its latent capacity to function as a mechanism of behavioral regulation and normative ordering. Comparative regulatory studies, such as those examining insurance supervision in jurisdictions like China, tend to prioritize institutional design and compliance frameworks without sufficiently interrogating the broader regulatory implications of insurance practices themselves (Jing, 2021). Similarly, economic analyses that assess the balance between risks and benefits in insurance utilization frequently adopt a cost-benefit orientation that inadequately captures the systemic and governance-oriented dimensions of insurance-based regulation (Adelia et al., 2024).

This conceptual gap is further compounded by the lack of integrative frameworks that bridge legal theory, economic analysis, and empirical observations in a coherent account of regulation by insurance. The absence of a robust theoretical and empirical articulation of insurance as a regulatory instrument becomes particularly problematic in jurisdictions such as Indonesia, where the legal framework governing insurance remains predominantly anchored in traditional doctrines of indemnity and contractual obligation. While practical developments indicate that insurance institutions in Indonesia have begun to exercise *de facto* regulatory functions through underwriting standards, premium differentiation, and risk assessment protocols these practices lack explicit normative recognition within the legal system.

The resulting disjunction between law in the books and law in action not only undermines regulatory coherence but also raises critical questions accountability, legitimacy, and the distribution of regulatory authority between public and private actors. In light of the increasing complexity of modern risks and the limitations of state capacity, the failure to systematically integrate insurance-based regulatory mechanisms into the legal architecture risks perpetuating inefficiencies and regulatory blind spots. Positioned within this intellectual and practical context, the present study advances the argument that regulation by insurance constitutes a paradigmatic shift in the governance of risk, necessitating a reconceptualization of insurance law beyond its conventional boundaries. By situating insurance within the broader discourse of regulatory theory and risk governance, this research seeks to elucidate the conditions under which insurance can effectively operate as a quasi-regulatory instrument, as well as the normative implications of such a transformation for legal systems that have yet to fully accommodate this role.

The Indonesian legal system, with its evolving financial regulatory landscape and increasing engagement with global risk dynamics, provides a compelling case for examining the intersection between insurance practices and regulatory functions, thereby contributing to a more nuanced understanding of hybrid governance models in contemporary legal scholarship. This study aims to analyze the concept of regulation by insurance from an Indonesian legal perspective by critically evaluating the effectiveness of insurance as a modern risk management and regulatory tool, while simultaneously proposing a theoretical framework that integrates legal, economic, and governance dimensions of insurance-based regulation, ultimately contributing to the development of a more adaptive and coherent model of risk governance capable of addressing the complexities of contemporary society.

RESEARCH METHODS

This study adopts a normative juridical approach grounded in doctrinal legal research, complemented by a comparative analytical framework to examine the evolving concept of regulation by insurance within the Indonesian legal system. The normative dimension focuses on the systematic analysis of legal norms governing insurance, including statutory provisions such as Law No. 40 of 2014

on Insurance, relevant implementing regulations issued by the Financial Services Authority (OJK), and general principles embedded in the Indonesian Civil Code (KUHPPerdata) and Commercial Code (KUHD). These primary legal materials are further enriched by secondary sources comprising scholarly monographs, peer-reviewed journal articles, and international literature addressing insurance regulation, risk governance, and law and economics perspectives. The comparative element draws selectively on regulatory developments in other jurisdictions, particularly those that have incorporated insurance as a quasi-regulatory mechanism in addressing emerging risks such as climate change and digitalization, thereby enabling a critical juxtaposition between Indonesia's formal legal framework and global regulatory practices (Jing, 2021; Pantos, 2024).

The analytical framework of this research is constructed upon an integrative interpretative method that combines conceptual analysis, systematic interpretation, and functional legal analysis to uncover the latent regulatory dimensions of insurance mechanisms. Conceptual analysis is employed to deconstruct the theoretical foundations of regulation by insurance within the broader discourse of regulatory theory and risk society, while systematic interpretation is used to align fragmented legal norms within Indonesia's insurance regime into a coherent doctrinal structure. Functional analysis, in turn, evaluates the effectiveness of insurance as a modern risk management and governance tool by examining its capacity to influence behavior, allocate risk efficiently, and complement state-based regulation. This tripartite analytical approach enables the study to move beyond formalistic legal interpretation and engage critically with the empirical realities of insurance practices, particularly in assessing whether existing legal doctrines adequately capture the regulatory functions performed by insurance institutions in contemporary risk environments (Prasetia et al., 2026; Abu Al-Haija & Houcine, 2024).

RESULTS AND DISCUSSION

Normative Construction of Regulation by Insurance within the Indonesian Legal Framework

The doctrinal positioning of insurance within Indonesian law remains anchored in classical contract theory, particularly as codified in the Indonesian Commercial Code (KUHD) and further elaborated in Law No. 40 of 2014 on Insurance, which conceptualizes insurance primarily as a mechanism of risk transfer rather than a regulatory instrument. This statutory orientation reflects a grammatical interpretation of insurance contracts as indemnity agreements that bind the insurer and the insured through reciprocal obligations, thereby limiting the recognition of insurance as a governance mechanism that shapes behavior. A systematic reading of Law No. 40 of 2014, especially provisions concerning risk pooling, premium determination, and claims management, reveals implicit regulatory effects that extend beyond mere contractual performance. These latent regulatory dimensions align with the theoretical proposition that insurance can operate as a quasi-regulatory mechanism through economic incentives and risk-based pricing (Kochenburger & Salve, 2023).

Such an interpretation necessitates a teleological shift in understanding insurance law, wherein the purpose of insurance extends to the broader objective of risk governance within society. The normative gap becomes more apparent when juxtaposing Indonesian insurance law with global regulatory developments that increasingly acknowledge the governance role of insurance institutions. Comparative legal analysis indicates that jurisdictions incorporating advanced insurance regulation frameworks have begun to integrate behavioral incentives into legal structures, thereby transforming insurers into de facto regulators of risk-sensitive activities. Indonesian law, however, has yet to codify such a paradigm, thereby creating a disjunction between legal doctrine and operational practice. This disjunction is evident in underwriting standards imposed by insurers, which effectively regulate access to insurance coverage based on compliance with safety and risk mitigation measures. These practices demonstrate the functional equivalence between insurance mechanisms and regulatory interventions, albeit without explicit legal recognition (Abraham & Schwarcz, 2022).

The absence of doctrinal acknowledgment raises questions regarding the legitimacy and accountability of such private regulatory functions within a public law framework. The interpretative tension between contract law principles and regulatory theory is further complicated by the emergence of digital insurance technologies, including blockchain-based parametric insurance systems that automate claims processing and risk assessment. Indonesian regulatory instruments have yet to comprehensively address these technological transformations, resulting in a normative vacuum concerning issues of data governance, algorithmic accountability, and contractual transparency. A

critical reading of existing regulations suggests that while technological innovation is implicitly accommodated under general provisions of financial services law, specific normative guidelines remain underdeveloped. The incorporation of blockchain technology in insurance introduces new dimensions of trust, automation, and risk verification that challenge traditional legal doctrines (Meisinta et al., 2026; Brophy, 2020).

These developments necessitate a re-evaluation of the legal status of insurance contracts and their capacity to function as regulatory instruments within technologically mediated environments. A structured mapping of relevant legal provisions illustrates the fragmented nature of Indonesia's insurance regulatory framework, which lacks a cohesive integration of risk governance principles. The following table embedded within this analytical paragraph provides a normative overview of key statutory provisions and their implicit regulatory functions:

Table 1. Normative Mapping of Indonesian Insurance Legal Framework and Its Regulatory Implications

Legal Instrument	Core Provision	Regulatory Implication
Law No. 40/2014	Risk transfer and premium	Behavioral incentives via pricing
KUHD	Contractual obligation	Formal legal binding
OJK Regulations	Supervision and compliance	Institutional oversight

This mapping demonstrates that while regulatory elements are present, they remain dispersed and insufficiently articulated within a unified doctrinal framework. A systematic interpretation suggests that these provisions could be harmonized to support a broader conception of insurance as a regulatory tool, particularly in addressing complex risk environments. The doctrinal limitations identified within Indonesian law reflect a broader theoretical constraint in recognizing private actors as legitimate regulators within a hybrid governance system. Legal positivism, which underpins much of Indonesian statutory interpretation, tends to prioritize formal sources of law over functional analysis, thereby marginalizing the regulatory role of non-state actors. A teleological approach, however, reveals that the purpose of insurance extends beyond indemnification to include risk mitigation and behavioral control, aligning with contemporary regulatory theory. This interpretative shift is supported by scholarly arguments that emphasize the role of insurance in shaping risk behavior through market-based mechanisms (Andreeva, 2020).

The integration of such perspectives into Indonesian legal doctrine would require a reconfiguration of normative assumptions regarding the boundaries of regulation. The interaction between insurance law and sector-specific regulations further illustrates the potential of insurance as a regulatory instrument, particularly in areas such as environmental risk, aviation, and emerging technologies. For instance, regulatory frameworks governing drone operations increasingly rely on mandatory insurance requirements as a means of ensuring compliance with safety standards and risk mitigation protocols. Indonesian law has begun to adopt similar approaches in certain sectors, although these remain limited in scope and application. Comparative analysis with international regulatory practices demonstrates that insurance-based regulation can effectively complement state enforcement mechanisms by incentivizing compliance through economic means (Tarr et al., 2021).

The absence of a comprehensive legal framework integrating these approaches in Indonesia underscores the need for doctrinal reform. The effectiveness of insurance as a regulatory mechanism is also contingent upon the operational capacity of insurance companies to assess and manage risk, which in turn influences their ability to impose behavioral conditions on insured parties. Indonesian insurance law recognizes the importance of risk management within insurance operations, yet it does not explicitly link these functions to broader regulatory objectives. Empirical studies on insurance company operations highlight the role of internal risk management systems in enhancing organizational efficiency and stability (Petrović et al., 2026).

These findings suggest that insurers possess the institutional capacity to function as regulatory actors, provided that legal frameworks acknowledge and support such roles. The absence of explicit legal recognition, however, limits the extent to which these capacities can be effectively mobilized. The doctrinal analysis must also consider the implications of delayed claims settlement and operational inefficiencies, which undermine the credibility of insurance as a regulatory mechanism. Legal disputes

arising from delayed claims payments reveal structural weaknesses in the enforcement of contractual obligations, thereby eroding trust in insurance institutions. Indonesian courts have addressed such disputes within the framework of contract law, yet these decisions rarely engage with the broader regulatory implications of insurance practices. The persistence of such issues indicates that the effectiveness of insurance as a governance tool is contingent upon the integrity and efficiency of its operational processes (Jabbar, 2025).

Addressing these deficiencies requires not only legal reform but also institutional strengthening within the insurance sector. The integration of Islamic insurance (*takaful*) principles into the Indonesian legal system introduces an additional layer of complexity in conceptualizing insurance as a regulatory instrument. *Takaful* operates on principles of mutual risk-sharing and ethical compliance, which align with broader objectives of social justice and economic stability. Indonesian regulations governing *takaful* have sought to accommodate these principles, yet they remain largely confined to financial and contractual dimensions. The normative potential of *takaful* as a mechanism of ethical regulation has not been fully explored within the legal framework. Scholarly analyses emphasize the alignment between *takaful* and *maqashid sharia* objectives, suggesting that insurance can function as a tool for achieving broader societal goals (Prayitno, 2024).

This perspective reinforces the argument for expanding the conceptual boundaries of insurance law. The cumulative analysis indicates that Indonesian insurance law possesses latent regulatory capacities that remain underutilized due to doctrinal limitations and fragmented legal structures. A comprehensive reinterpretation of existing legal provisions, informed by regulatory theory and comparative analysis, would enable the integration of insurance as a formal component of risk governance. Such a transformation would require legislative amendments, judicial recognition, and doctrinal innovation to align legal frameworks with contemporary risk realities. The recognition of insurance as a regulatory instrument would not only enhance the effectiveness of risk management strategies but also contribute to the development of a more adaptive and resilient legal system.

Doctrinal-Comparative Elaboration of Insurance as a Regulatory Instrument in Indonesian Law

The conceptualization of insurance as a regulatory instrument within Indonesian law necessitates a doctrinal re-examination grounded in comparative legal analysis, particularly in light of the evolving global recognition of insurance as a mechanism of governance rather than merely a contractual arrangement. Indonesian positive law, especially Law No. 40 of 2014 on Insurance, continues to emphasize the indemnity function of insurance without explicitly acknowledging its capacity to structure behavior through risk-based incentives. A systematic interpretation of statutory provisions reveals that underwriting standards, premium differentiation, and policy exclusions inherently embody regulatory characteristics that influence policyholder conduct. These elements align with the theoretical construct of “regulation by insurance,” wherein insurers act as intermediaries that translate abstract risk norms into enforceable contractual conditions (Kochenburger & Salve, 2023).

The absence of explicit doctrinal recognition within Indonesian law creates a conceptual limitation that constrains the development of insurance as a formalized regulatory tool. A comparative doctrinal approach highlights that several jurisdictions have begun to formally integrate insurance mechanisms into their regulatory architectures, particularly in sectors characterized by high levels of uncertainty and technological complexity. In these systems, insurance is not merely a risk transfer mechanism but also a means of enforcing compliance with safety standards and risk mitigation protocols. Indonesian law, however, has yet to adopt such an integrated approach, resulting in a fragmented regulatory landscape in which insurance operates in parallel with, rather than as part of, public regulation. This fragmentation is evident in the absence of statutory provisions that explicitly link insurance coverage to regulatory compliance in sectors such as environmental protection, aviation, and digital technology. The comparative perspective underscores the need for doctrinal reform that aligns Indonesian law with contemporary developments in global insurance regulation (Abraham & Schwarcz, 2022).

Such reform would require a reconceptualization of insurance as a hybrid instrument that operates at the intersection of private law and public regulation. The doctrinal analysis must also engage with the implications of technological innovation, particularly the integration of insurtech and blockchain-based systems into insurance operations, which challenge traditional legal categories and necessitate new interpretative frameworks. Indonesian regulations, including those issued by the Financial Services

Authority (OJK), have begun to address aspects of digital financial services, yet they remain insufficiently specific in regulating the unique characteristics of digital insurance platforms. A teleological interpretation of existing legal provisions suggests that the objectives of efficiency, transparency, and consumer protection could support the incorporation of technological innovations into the legal framework governing insurance. Blockchain-based parametric insurance, for instance, introduces automated claims mechanisms that reduce discretion and enhance predictability, thereby reinforcing the regulatory function of insurance (Meisinta et al., 2026; Brophy, 2020).

These developments necessitate a doctrinal expansion that accommodates the regulatory implications of technological transformation within insurance law. A structured doctrinal mapping of comparative legal approaches to insurance regulation can be illustrated through the following table embedded within this analytical paragraph, which synthesizes normative differences across jurisdictions and their implications for Indonesian law:

Table 2. Comparative Legal Recognition of Insurance as a Regulatory Instrument Across Jurisdictions

Jurisdiction	Legal Recognition of Insurance as Regulation	Key Mechanism	Implication for Indonesia
European Union	Partial recognition	Risk-based compliance incentives	Model for integration
United States	Functional recognition	Liability insurance requirements	Behavioral regulation
Indonesia	Implicit only	Contractual risk transfer	Doctrinal gap

This comparative table demonstrates that Indonesian law lags behind in explicitly recognizing the regulatory function of insurance, thereby limiting its capacity to address complex risk environments. A systematic and comparative interpretation indicates that the incorporation of such recognition would enhance the coherence and effectiveness of the legal framework. The doctrinal tension between private autonomy and regulatory intervention remains a central issue in the development of insurance as a governance tool within Indonesian law. Traditional contract law principles emphasize the freedom of parties to determine the terms of their agreement, thereby limiting the extent to which insurance contracts can be used to impose regulatory conditions. However, a teleological interpretation that prioritizes the broader objectives of risk mitigation and public welfare suggests that such limitations may be reconsidered in light of contemporary regulatory needs. The integration of mandatory insurance schemes in certain sectors demonstrates that the state has already begun to utilize insurance as a regulatory instrument, albeit in a limited and fragmented manner. This approach reflects a hybrid model in which private contractual mechanisms are employed to achieve public regulatory objectives (Tarr et al., 2021).

The doctrinal challenge lies in reconciling these competing principles within a coherent legal framework. The role of risk management theory in shaping the doctrinal understanding of insurance regulation cannot be overlooked, as it provides a conceptual foundation for interpreting insurance practices as mechanisms of governance. Risk management frameworks emphasize the identification, assessment, and mitigation of risks, processes that are inherently embedded within insurance operations. Indonesian law acknowledges the importance of risk management within the insurance sector, yet it does not explicitly connect these functions to broader regulatory objectives. A systematic interpretation of statutory provisions suggests that such a connection could be established through the development of normative standards that link risk assessment to regulatory compliance. Scholarly analyses highlight the potential of insurance companies to function as risk regulators by leveraging their expertise in risk evaluation and pricing (Andreeva, 2020).

This perspective supports the argument for expanding the doctrinal scope of insurance law to include regulatory functions. The integration of Islamic insurance (*takaful*) principles into Indonesian law further enriches the doctrinal landscape by introducing alternative conceptions of risk sharing and ethical governance. *Takaful* is grounded in principles of mutual cooperation and social responsibility, which align with broader regulatory objectives related to equity and sustainability. Indonesian

regulations governing *takaful* have primarily focused on ensuring compliance with *sharia* principles, yet they have not fully explored the potential of *takaful* as a mechanism of social regulation. A teleological interpretation of these principles suggests that *takaful* could serve as a model for integrating ethical considerations into insurance-based regulation. The alignment between *takaful* and *maqashid sharia* objectives reinforces the argument that insurance can function as a tool for achieving broader societal goals beyond risk transfer (Prayitno, 2024).

This doctrinal perspective highlights the need for a more inclusive approach to insurance regulation within Indonesian law. The operational dimension of insurance law, particularly in relation to claims management and contractual performance, also has significant implications for its regulatory function. Delays in claims settlement and disputes over coverage undermine the credibility of insurance as a mechanism of governance, as they erode trust and reduce the effectiveness of behavioral incentives. Indonesian law provides mechanisms for resolving such disputes, yet these mechanisms are often limited in their ability to ensure timely and consistent enforcement. A doctrinal analysis suggests that strengthening legal standards for claims management could enhance the regulatory capacity of insurance by reinforcing accountability and predictability. The persistence of operational inefficiencies indicates that the effectiveness of insurance as a regulatory tool is contingent upon the integrity of its institutional processes (Jabbar, 2025).

Addressing these issues requires both legal reform and institutional strengthening. The comparative analysis also reveals that the effectiveness of insurance as a regulatory instrument is influenced by the degree of integration between insurance law and broader regulatory frameworks, particularly in sectors characterized by high levels of risk and uncertainty. In jurisdictions where such integration has been achieved, insurance plays a central role in enforcing compliance with regulatory standards, thereby complementing state enforcement mechanisms. Indonesian law, by contrast, continues to treat insurance as a peripheral component of the regulatory system, resulting in missed opportunities for enhancing risk governance. A systematic and teleological interpretation suggests that greater integration could be achieved through legislative amendments that explicitly recognize the regulatory function of insurance. This approach would align Indonesian law with contemporary developments in global insurance regulation and enhance its capacity to address complex risk environments (Petrović et al., 2026).

The doctrinal implications of such reform are significant, as they would redefine the boundaries between private and public law. The cumulative doctrinal and comparative analysis demonstrates that the concept of “regulation by insurance” offers a valuable framework for rethinking the role of insurance within Indonesian law. While existing legal provisions contain elements that support this concept, they remain insufficiently developed and fragmented across different regulatory domains. A comprehensive doctrinal reform that integrates comparative insights, technological developments, and risk management theory would enable the recognition of insurance as a formal regulatory instrument. Such reform would not only enhance the effectiveness of risk governance but also contribute to the development of a more adaptive and resilient legal system. The recognition of insurance as a regulatory mechanism would thus represent a significant advancement in the evolution of Indonesian legal doctrine.

Theoretical-Doctrinal Reconstruction of Insurance as a Hybrid Regulatory Regime in Indonesian Law

The reconstruction of insurance as a hybrid regulatory regime within Indonesian law requires a theoretical reorientation that transcends the traditional dichotomy between private law and public regulation. Indonesian legal doctrine has historically positioned insurance within the domain of contractual obligations, thereby limiting its analytical scope to the principles of indemnity, utmost good faith, and risk transfer. A teleological interpretation of Law No. 40 of 2014 on Insurance, however, reveals that the functional objectives of insurance extend to shaping risk behavior and promoting systemic stability. This expanded understanding aligns with contemporary regulatory theory, which recognizes the role of non-state actors in governance processes. The doctrinal challenge lies in articulating a coherent legal framework that accommodates this hybrid function without undermining foundational principles of legal certainty.

The theoretical foundation of “regulation by insurance” is rooted in the capacity of insurers to influence behavior through economic incentives, contractual conditions, and risk-based pricing

mechanisms that operate as indirect forms of regulation. Within the Indonesian legal system, these mechanisms remain largely untheorized despite their widespread practical implications across multiple sectors. A systematic interpretation of insurance contracts demonstrates that policy terms often incorporate preventive and corrective measures that effectively regulate the conduct of insured parties. These measures include safety requirements, compliance obligations, and risk mitigation standards that function analogously to statutory regulations. The absence of explicit doctrinal recognition of these functions creates a conceptual gap that limits the development of insurance as a regulatory instrument (Abraham & Schwarcz, 2022).

Addressing this gap requires the integration of regulatory theory into the doctrinal analysis of insurance law. The interaction between insurance law and broader regulatory frameworks further supports the conceptualization of insurance as a hybrid regime that operates at the intersection of market mechanisms and state authority. Indonesian law has begun to incorporate insurance requirements into certain regulatory domains, such as transportation and financial services, yet these integrations remain partial and fragmented. A historical interpretation of regulatory developments indicates that such incorporations have been driven primarily by pragmatic considerations rather than a coherent theoretical framework. This ad hoc approach limits the ability of insurance to function as a systematic component of risk governance. Comparative legal scholarship suggests that a more integrated approach would enhance regulatory efficiency by leveraging the expertise and resources of insurance institutions (Kochenburger & Salve, 2023).

The Indonesian legal system thus faces the task of transforming these fragmented practices into a cohesive doctrinal structure. Technological advancements, particularly in the field of insurtech, have further expanded the regulatory potential of insurance by enabling more precise and dynamic forms of risk assessment and behavioral control. Indonesian regulatory instruments have yet to fully address the implications of these developments, resulting in a normative lag that constrains innovation. A teleological interpretation of existing financial regulations suggests that the objectives of transparency, efficiency, and consumer protection could support the integration of digital insurance technologies into the legal framework. Blockchain-based systems, for example, facilitate automated enforcement of contractual terms, thereby reducing the need for external regulatory intervention (Meisinta et al., 2026; Brophy, 2020).

These developments reinforce the argument that insurance can function as a self-executing regulatory mechanism within technologically mediated environments. The doctrinal reconstruction must also consider the limits of insurance as a regulatory tool, particularly in relation to issues of accountability, legitimacy, and distributive justice. While insurers possess significant capacity to influence behavior, their primary motivation remains profit maximization, which may not always align with public interest objectives. Indonesian law currently lacks comprehensive mechanisms for ensuring that the regulatory functions of insurers are exercised in a manner consistent with broader societal goals. A critical interpretation of existing legal provisions suggests that greater oversight and accountability mechanisms are necessary to address this concern. Scholarly analyses emphasize that the effectiveness of insurance-based regulation is contingent upon the alignment of private incentives with public objectives (Andreeva, 2020).

This alignment represents a key challenge in the development of insurance as a hybrid regulatory regime. The integration of Islamic legal principles into Indonesian insurance law provides an additional normative dimension that supports the reconstruction of insurance as a socially oriented regulatory mechanism. *Takaful*, as an alternative model of insurance, emphasizes mutual cooperation, ethical responsibility, and risk sharing, thereby aligning with broader objectives of social justice and economic equity. Indonesian regulations governing *takaful* have primarily focused on ensuring compliance with sharia principles, yet they have not fully explored the regulatory implications of these principles. A teleological interpretation suggests that *takaful* could serve as a model for embedding ethical considerations into insurance-based regulation. The alignment between *takaful* and *maqashid sharia* objectives reinforces the argument that insurance can function as a tool for achieving broader societal goals (Prayitno, 2024).

This perspective highlights the potential for integrating ethical and regulatory dimensions within a unified legal framework. The operational integrity of insurance institutions also plays a critical role in determining their effectiveness as regulatory actors, particularly in relation to claims management and dispute resolution processes. Indonesian legal doctrine recognizes the importance of contractual

performance, yet it does not explicitly link operational efficiency to regulatory effectiveness. Delays in claims settlement and inconsistencies in policy enforcement undermine the credibility of insurance as a governance mechanism, thereby reducing its capacity to influence behavior. A doctrinal analysis suggests that strengthening legal standards for operational performance could enhance the regulatory function of insurance by reinforcing trust and predictability. The persistence of such issues indicates that the effectiveness of insurance as a regulatory tool is contingent upon the reliability of institutional processes (Jabbar, 2025).

Addressing these challenges requires both legal reform and institutional capacity building. The theoretical reconstruction must also engage with the role of risk management as a foundational element of insurance-based regulation, particularly in light of its centrality to both insurance operations and regulatory objectives. Risk management frameworks provide the analytical tools necessary for identifying, assessing, and mitigating risks, processes that are inherently embedded within insurance practices. Indonesian law acknowledges the importance of risk management within the insurance sector, yet it does not fully integrate these concepts into the broader regulatory framework. A systematic interpretation suggests that such integration could enhance the coherence and effectiveness of risk governance by aligning legal norms with operational practices. Scholarly studies highlight the capacity of insurance institutions to function as risk regulators through the application of advanced risk assessment methodologies (Petrović et al., 2026).

This perspective supports the argument for a more comprehensive integration of risk management theory into insurance law. The comparative dimension of the analysis further underscores the necessity of recognizing insurance as a hybrid regulatory regime, particularly in light of global trends that increasingly rely on market-based mechanisms to complement state regulation. Jurisdictions that have successfully integrated insurance into their regulatory frameworks demonstrate improved capacity to manage complex and dynamic risks. Indonesian law, by contrast, continues to treat insurance as a peripheral component of the regulatory system, thereby limiting its potential contribution to risk governance. A teleological and comparative interpretation suggests that greater integration could be achieved through legislative reforms that explicitly recognize the regulatory function of insurance. Such reforms would align Indonesian law with contemporary developments in global regulatory theory and practice (Tarr et al., 2021).

The doctrinal implications of this shift are significant, as they would redefine the relationship between private and public law. The overall reconstruction of insurance as a hybrid regulatory regime within Indonesian law reveals both significant potential and substantial challenges that must be addressed through doctrinal innovation and legislative reform. While existing legal provisions provide a foundation for recognizing the regulatory functions of insurance, they remain insufficiently developed and fragmented across different domains. A comprehensive approach that integrates theoretical insights, comparative analysis, and normative reform is necessary to fully realize the potential of insurance as a governance tool. Such an approach would not only enhance the effectiveness of risk management strategies but also contribute to the development of a more adaptive and resilient legal system. The recognition of insurance as a hybrid regulatory regime thus represents a critical step in the evolution of Indonesian legal doctrine in response to contemporary risk challenges.

CONCLUSION

The analysis demonstrates that the concept of “regulation by insurance” within the Indonesian legal system remains doctrinally underdeveloped despite its functional manifestation across various regulatory contexts, as evidenced through normative interpretation, comparative insight, and theoretical reconstruction. Indonesian positive law, particularly Law No. 40 of 2014 on Insurance, continues to frame insurance within a traditional contractual paradigm, thereby obscuring its latent capacity to operate as a mechanism of behavioral control and risk governance. A systematic, teleological, and comparative approach reveals that insurance institutions, through underwriting, premium differentiation, and contractual conditions, effectively perform quasi-regulatory functions that align with contemporary regulatory theory. The integration of technological developments such as insurtech and blockchain further strengthens this regulatory potential, while also exposing normative gaps in legal frameworks governing digital insurance practices. At the same time, doctrinal limitations, issues of accountability, and the absence of explicit legal recognition constrain the effectiveness and legitimacy of insurance as a regulatory instrument, necessitating a comprehensive reconstruction of legal doctrine.

The incorporation of risk management theory, comparative legal developments, and ethical dimensions such as takaful principles reinforces the argument that insurance should be reconceptualized as a hybrid regulatory regime that bridges private and public law functions. The advancement of Indonesian insurance law requires deliberate legislative reform, doctrinal innovation, and institutional strengthening to formally integrate insurance into the broader architecture of modern risk governance.

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