IMPROVING THE METHODOLOGY FOR TRANSFORMING THE INSURANCE MARKET UNDER CONDITIONS OF ECONOMIC GLOBALIZATION AND DIGITALIZATION

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Abstract. The paper substantiates an enhanced methodology for analysing insurance market transformation under economic globalisation and digitalisation, with Uzbekistan as the case context. It argues that transformation assessment should extend beyond volume-based indicators (premiums, assets, number of firms) and incorporate digital maturity, customer outcomes, operational efficiency, and risk governance. Using official market statistics and regulator-reported indicators, the study documents shifts in premium and claims dynamics, as well as structural changes related to consolidation, distribution reconfiguration, and the strengthening of actuarial capacity. An integrated analytical framework is proposed to connect insurers' digital capability building with sustainable competitiveness and supervisory objectives.

Keywords: insurance market; globalisation; digitalisation; market transformation; competitiveness; digital maturity; underwriting; claims management; cyber risk; data governance; model risk; regulation.

INTRODUCTION

Economic globalisation and rapid digitalisation are reshaping insurance markets by reconfiguring value chains, competitive boundaries, and the institutional architecture of supervision. In contemporary insurance ecosystems, competitive advantage increasingly hinges on data-intensive underwriting, automated claims handling, platform-based distribution, and scalable partnerships with technology providers—capabilities that compress transaction costs, improve customer experience, and accelerate product innovation. At the same time, digitalisation alters the risk frontier: cyber exposure, third-party dependency, model risk and operational fragility can propagate through interconnected markets, thereby reframing "competitiveness" as a joint function of innovation capacity and governance quality. These dynamics are particularly salient for emerging markets that seek both deeper financial inclusion and stronger resilience in a context of cross-border integration.

Uzbekistan provides a policy-relevant case where insurance sector development intersects with structural reforms and global connectivity. Sector expansion has been rapid Fitch Ratings reports that total gross written premiums grew by 21% in 2024, reaching UZS 9,770 billion (approximately USD 756 million), while also noting that growth has been influenced by higher-risk lines and increasing regulatory scrutiny. Official domestic statistics corroborate the upward trajectory in service output: the National Statistics Committee indicates that the volume of insurance services in January–April 2025 amounted to UZS 3.3 trillion, reflecting a 23.1% increase compared with the corresponding period of the previous year. From a market-structure perspective, the National Agency for Perspective Projects (NAPP) reports that in January–June 2025 insurers collected roughly UZS 6.2 trillion in premiums, with the portfolio dominated by voluntary (non-mandatory) insurance (around 79%), while mandatory insurance accounted for about 16% and life insurance for about 5%—a composition that locates the centre of competitive dynamics primarily in voluntary lines where product differentiation and service quality matter most.

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In this context, methodological questions become decisive. The conventional approach—treating market transformation largely as growth in premiums, assets, or number of firms—does not adequately capture how digitalisation changes the drivers of competitiveness, nor how globalisation alters the channels of risk transmission and innovation diffusion. The Uzbek policy environment explicitly recognises the need to modernise the sector: Presidential Resolution PQ-4412 ("On measures for reforming and ensuring accelerated development of the insurance market") sets out reform directions that include strengthening the regulatory framework and aligning progressively with international standards and best practices, thereby creating institutional preconditions for market upgrading in a globalised environment.

Accordingly, this paper positions "insurance market transformation" as a multidimensional process driven by global integration and digital adoption, and argues that the methodology used to evaluate transformation must be expanded beyond volume-based indicators. The proposed perspective treats competitiveness as an integrated construct combining operational efficiency, customer-centric performance, and risk governance. Such a framework is consistent with international supervisory reasoning that digitalisation reshapes business models and consumer outcomes while simultaneously introducing new vulnerabilities that must be managed to ensure sustainable competition.

The aim of the study is to develop and justify an enhanced methodological approach for analysing insurance market transformation in Uzbekistan under conditions of economic globalisation and digitalisation. The research contributes by formalising an analytical framework that aligns market-development metrics with digital maturity and governance quality; grounding the framework in Uzbekistan's official market statistics and reform context; and providing an empirically oriented basis for policy and managerial recommendations that support sustainable competitiveness.

LITERATURE REVIEW

Scholarship on insurance-market transformation under economic globalisation and digitalisation has converged on the view that "competitiveness" is no longer reducible to scale expansion or price rivalry, but increasingly reflects the re-engineering of the insurance value chain through data and automation, the platformisation of distribution and service delivery, and the governance capacity to manage technology-induced vulnerabilities. In advanced supervisory discourse, digitalisation is treated as a structural driver that simultaneously improves product design, development and distribution while amplifying operational, cyber and third-party risks, thereby requiring a more integrated analytical lens when assessing market evolution. This has direct relevance for emerging markets such as Uzbekistan, where sector growth is coupled with an explicit state reform agenda and gradual integration with international practices, as reflected in the Presidential resolution on accelerating insurance market development and improving the regulatory framework.

A central reference point in the international academic canon is the work by Martin Eling and Martin Lehmann, who systematise how digital technologies reshape key stages of the insurance value chain and affect the insurability of risks. Their synthesis emphasises that digitalisation changes competitive dynamics via customer experience, process efficiency, product innovation and cross-sector competition—effectively reframing transformation as an interaction between technology adoption and market structure rather than a linear modernisation process. This value-chain logic is complemented by platform-economy research on intermediation. Lukas Stricker, Joël Wagner and Angela Zeier Röschmann show that multi-sided digital platforms can alter the functional roles of intermediaries and shift competition towards orchestration capabilities (matching, information exchange, transaction facilitation), thus encouraging a move from fragmented channels to integrated ecosystems.

More recent work extends the transformation debate to frontier technologies such as generative artificial intelligence. Ruo (Alex) Jia, Martin Eling, and Tianyang Wang examine how

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generative AI can be embedded along the insurance customer journey and highlight the dual nature of the effect productivity and personalisation gains coexist with heightened model risk, governance challenges and consumer trust constraints. In parallel, the methodological infrastructure for cross-country benchmarking of insurance markets is strengthened by OECD's statistical and analytical apparatus. The OECD Global Insurance Market Trends programme and the associated database provide a comparative baseline for market size, growth and claims dynamics, enabling transformation studies to connect micro-level digital capabilities with macro-level market outcomes in a consistent empirical frame. EIOPA's market-wide survey evidence further underscores that digital projects tend to diffuse unevenly across firms, and that supervisory attention increasingly focuses on outsourcing concentration, data governance and cyber resilience as determinants of sustainable competition.

Uzbek scholarship provides a complementary, context-sensitive body of work that anchors transformation in institutional reform, product structure, and market development constraints typical for an emerging insurance system. X. M. Shennaev frames the development of insurance activity in Uzbekistan through a market-building lens, focusing on priorities for expanding and improving the sector's functional capacity. O. T. Yuldashev develops conceptual foundations for life insurance development—an area with strategic implications for long-term savings mobilisation, product innovation, and the sequencing of distribution modernisation. I. X. Abduraxmonov, by analysing liability insurance practice, addresses methodological issues of underwriting discipline, tariff setting and claims management—domains where digitalisation (data-driven risk classification and automated claims workflows) is expected to produce measurable efficiency and transparency gains. N. A. Mavrulova studies directions for developing the general insurance segment, which is structurally central in Uzbekistan and, from a transformation perspective, is most sensitive to digitised distributio. Finally, K. Ikramova explicitly connects financial technologies to insurance, focusing on digital transformation and innovation mechanisms—thus providing a direct bridge between national market discussions.

Analysis and Results

In Uzbekistan, the transformation of the insurance market under the joint pressures of economic globalization and rapid digitalization is increasingly reflected not only in the acceleration of service turnover, but also in a measurable reconfiguration of market structure, distribution channels, and insurers' balance-sheet profiles. Official statistics indicate that in January–April 2025 the volume of insurance services reached 3.3 trillion UZS, expanding by 23.1% compared to the same period of 2024, which signals a demand-side shift consistent with broader digital adoption and the scaling of remote service delivery models.

At the sector level, the National Agency for Perspective Projects (NAPP) reports that gross written premiums increased from 3,778,183 mln UZS (H1 2023) to 4,269,449 mln UZS (H1 2024), and then rose sharply to 6,234,864 mln UZS (H1 2025). In parallel, claims payments grew from 883,022 mln UZS (H1 2023) to 1,115,994 mln UZS (H1 2024) and 1,245,376 mln UZS (H1 2025). However, the relationship between premiums and claims (a simplified sector-level "loss ratio" proxy) is not linear: while it increased from 23.4% (H1 2023) to 26.1% (H1 2024), it declined to ~20.0% (H1 2025). This configuration is consistent with a market in which premium growth is being amplified faster than near-term claim outflows—an outcome that may arise from changes in product mix toward shorter-tail or lower-loss segments, improved underwriting and pricing discipline enabled by data-driven scoring, and/or increased use of reinsurance and risk transfer. Importantly, NAPP's H1 2025 data also show that the life insurance share of claims remains relatively small (about 5%), while voluntary general insurance dominates the claims structure (about 79%).

Institutional and infrastructural indicators further support the thesis that competitiveness in the Uzbek insurance market is increasingly "digitally conditioned." Between mid-2023 and mid-2025, the number of insurers declined from 41 to 34, suggesting consolidation and higher

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compliance/scale thresholds; simultaneously, the system records a contraction in insurance agents (from 5,207 to 3,442), while the number of actuaries increased (from 5 to 7), reflecting a gradual shift from extensive, agent-heavy distribution toward more analytically intensive risk governance (table 1).

Table 1.

Key H1 market indicators: scale, stability proxy, and distribution transformation (Uzbekistan)

Indicator	H1 2023 (30.06.2023)	H1 2024 (30.06.2024)	H1 2025 (01.07.2025)	Source
Gross written premiums (total)	3,778,183	4,269,449	6,234,864	NAPP insurance market indicators
Claims paid (total)	883,022	1,115,994	1,245,376	NAPP insurance market indicators
Loss ratio proxy (claims/premiums), %	23.4	26.1	20.0	Author’s calculation based on NAPP
Total investments (sector)	5,189,971	6,111,360	8,340,216	NAPP investments table
Share of deposits in investments, %	63.4	66.3	60.9	NAPP investments table
Share of real estate in investments, %	8.2	9.8	18.7	NAPP investments table
Aggregate statutory capital of insurers	2,124,918	2,347,399	3,128,568	NAPP market structure table
Number of insurers	41	35	34	NAPP market structure table
Number of actuaries	5	5	7	NAPP market structure table
Number of insurance agents	5,207	4,161	3,442	NAPP market structure table

Interpretatively, Table 1 indicates a three-layered transformation. First, the market is scaling quickly in nominal volumes (premiums and investments), which is broadly compatible with a digital-enabled expansion of access and transaction capacity. Second, the balance-sheet allocation is changing: deposits remain the largest component, but the real estate share rises sharply to 18.7% by mid-2025, which may reflect insurers’ search for inflation-hedging assets and yield stabilization under evolving financial conditions—yet it simultaneously raises questions about liquidity and valuation sensitivity in stress scenarios. Third, distribution and technical capacity signals (agents down, actuaries up) point to a competitiveness model less dependent on traditional intermediation and more dependent on analytics, pricing adequacy, and risk governance—core dimensions of digital transformation (figure 1).

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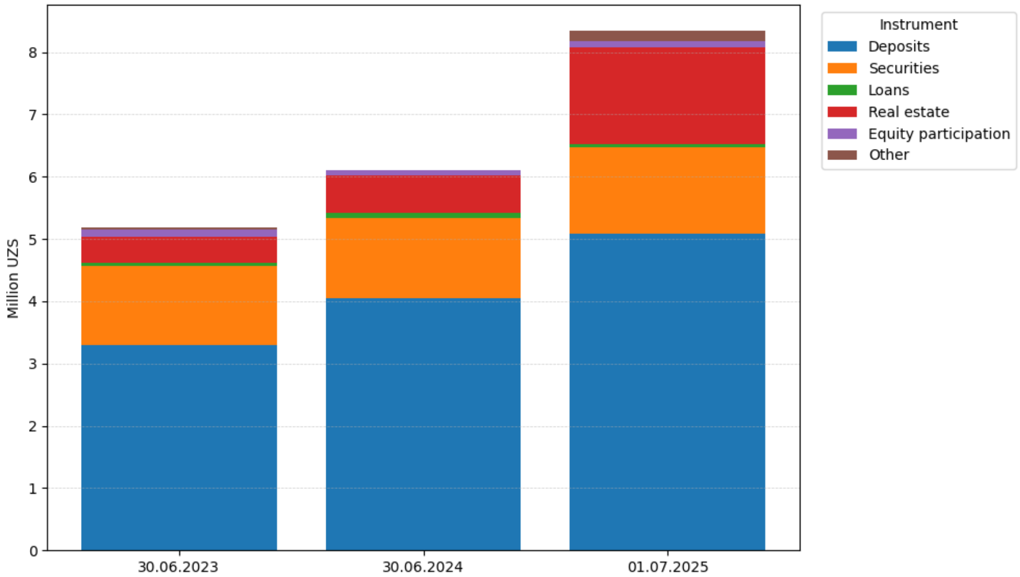

Figure 1. Investment portfolio composition of Uzbek insurers (H1 snapshots, mln UZS)

The figure below provides a higher-granularity view of the investment reallocation across six instrument groups, illustrating the scale effects (total growth) and compositional change (notably, the growth of real estate and the expansion of "other" instruments by mid-2025). Under a competitiveness lens, this structure matters because digitalization typically increases the speed of premium inflows and claims servicing, thereby increasing the value of liquidity management, ALM discipline, and investment operational resilience.

Conclusion and suggestions

The evidence assembled in this study indicates that Uzbekistan's insurance market is undergoing a measurable transformation shaped by the dual forces of economic globalisation and accelerating digitalisation, yet the nature of this transformation is best understood as a reconfiguration of competitive fundamentals rather than a simple expansion of market volume. Official statistics show rapid scaling of both activity and balance-sheet capacity: gross written premiums rose from UZS 3,778,183 million in H1 2023 to UZS 6,234,864 million in H1 2025, while total investments increased from UZS 5,189,971 million to UZS 8,340,216 million over the same period. The national statistical authorities report concurrent growth of insurance services output—UZS 3.3 trillion in January–April 2025, representing a 23.1% year-on-year increase—suggesting that demand-side dynamics are consistent with broader reforms and expanding access to financial services.

However, the results also show that transformation is uneven across market dimensions, and that "competitiveness" is increasingly tied to operational execution and governance quality under digital conditions. The simplified sector-level claims-to-premiums proxy rose from 23.4% (H1 2023) to 26.1% (H1 2024), then declined to approximately 20.0% (H1 2025). This pattern is consistent with rapid premium growth outpacing near-term claim outflows, but it also underscores the need for deeper interpretive caution: the ratio may reflect changes in product mix, evolving underwriting discipline, and shifting risk transfer arrangements rather than durable efficiency gains. In other words, volume growth alone is not a sufficient indicator of sustainable transformation; it must be interpreted alongside service quality, claims settlement performance, and prudential resilience metrics.

Two structural findings have immediate relevance for policy and managerial strategy. First, market consolidation and the decline in traditional intermediation capacity suggest an emerging competitive model that is less reliant on extensive agent networks and more reliant on analytics, pricing adequacy and digitally enabled customer servicing. Between mid-2023 and mid-2025, the number of insurers decreased from 41 to 34, and the number of agents contracted from 5,207 to 3,442,

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while the number of actuaries increased from 5 to 7. Such shifts are aligned with a transformation trajectory in which competition is increasingly determined by data capability, process automation and risk governance—areas that are central to the methodological framework advanced in this paper.

Second, the investment portfolio structure is changing in ways that matter for resilience in a digitalising market: deposits remain dominant, yet the share of real estate rose markedly, reaching 18.7% by mid-2025. This reallocation may improve nominal returns and hedging properties under domestic macro-financial conditions, but it also increases exposure to valuation and liquidity risks, which can be amplified when digital channels accelerate premium collection and raise expectations for rapid claims settlement.

Against this empirical background, the paper's methodological contribution implies several actionable proposals for strengthening transformation quality and long-run competitiveness. At the regulatory level, it is advisable to complement the existing set of market indicators with a structured "digital transformation scorecard" that can be monitored consistently over time. In the Uzbekistan context, such a scorecard should prioritise measurable, audit-friendly indicators that capture the migration of customer journeys to digital channels, the timeliness and transparency of claims handling, and the operational reliability of outsourced and cloud-based service arrangements. This would enable NAPP to track not only growth and capitalization, but also the quality of competition and consumer outcomes—an approach consistent with leading supervisory practice in digitalising insurance markets.

At the firm level, competitiveness gains are most likely to be durable when digitalisation is treated as end-to-end value chain redesign rather than isolated IT deployment. For Uzbekistan's market structure—where voluntary insurance dominates premium and claims flows—competitive advantage is expected to concentrate in the ability to automate claims triage and settlement, reduce cycle times, and improve underwriting segmentation through data integration, while maintaining explainability and fairness in pricing decisions. These capabilities directly reduce frictional costs and enhance customer trust, which is critical in a market where formal insurance culture and penetration are still developing.

Because advanced analytics and artificial intelligence introduce new vulnerabilities, the governance layer should be strengthened in parallel with technology diffusion. A pragmatic policy pathway is to introduce minimum standards for model risk management and data governance—covering validation, monitoring, documentation, and accountability for algorithmic decisions—together with cyber resilience expectations proportionate to each insurer's technology footprint and reliance on third-party providers. For an emerging market, the priority is not maximal complexity but enforceable discipline: a baseline governance architecture can prevent adverse selection, consumer harm, and reputational damage that would otherwise erode the credibility of digital insurance offerings.

Finally, the transformation agenda should be reinforced through ecosystem coordination and human-capital development. Digital competitiveness in insurance is increasingly a function of interoperability with banks, payment systems, e-commerce platforms and sectoral service providers (healthcare, mobility, property services). Policy can facilitate this by promoting standardized data exchange protocols and secure electronic identification practices, enabling insurers to develop integrated products and faster service pipelines. In parallel, the increase in actuarial capacity observed in the official data should be complemented by targeted development of data analytics, cyber risk, and digital product management skills through professional certification and university–industry programmes, thereby ensuring that digitalisation translates into measurable productivity and prudential soundness improvements rather than shallow channel replication.

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In summary, Uzbekistan's insurance market exhibits strong quantitative momentum, but sustainable transformation under globalisation and digitalisation requires a methodological shift in how progress is measured and governed.

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