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# A STUDY ON GROWTH TRAJECTORY OF INSURTECH IN INDIA

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**Abstract:**
*Between 2015 and 2024, India experienced a significant transformation in its insurance sector, propelled by rapid advancements in digital technology. Initially driven by fintech innovations in banking and finance, this evolution laid the foundation for the rise of InsurTech—a convergence of insurance and technology. The establishment of Acko, India's first fully digital general insurance company in 2017, marked a pivotal moment in this journey. Over the past decade, the Indian InsurTech ecosystem has grown remarkably, with equity funding rising from USD 8 million in 2015 to USD 912 million in 2024, and the number of active startups surpassing 160. Leveraging technologies such as artificial intelligence (AI), the Internet of Things (IoT), big data analytics, and automation, these firms have introduced personalized insurance products, enhanced claims management, and optimized underwriting processes. India's global share in InsurTech deal activity increased from 2% to 8% during this period, driven by initiatives like regulatory sandboxes, embedded insurance models, and mobile-first distribution strategies. This study examines the evolution, sectoral performance, and global positioning of InsurTech in India, while evaluating its sub-sectors and forecasting its future within the broader digital insurance landscape.*

**JEL Classification: G22, G23, L51, O31, G18**

***Keywords*: *InsurTech, Digital Insurance, Artificial Intelligence, Regulatory Sandbox, Insurance Innovation, Indian Insurance Sector.***

## Introduction:

The global financial sector has seen rapid digital transformation over the past decade, driven by AI, big data, blockchain, and cloud systems. In India, this shift is evident in the insurance industry, where widespread smartphone use and internet penetration (over 880 million users by 2024) have enabled insurers to use technology for personalized policies, better risk profiling, and streamlined operations. Indian companies are increasingly adopting AI chatbots, IoT monitors, and digital underwriting to enhance customer experience, cut costs, and improve efficiency. this automation has reduced errors and sped up claims and policy customization, leading to the rise of InsurTech—the integration of insurance with modern technology. Recognizing the opportunities and challenges, countries have implemented controlled innovation environments. The UK's FCA launched a Fintech Sandbox in 2016, allowing real-world testing of innovations in a controlled setting; over 90% of participating firms successfully launched. India followed with the IRDAI Regulatory Sandbox Framework in November 2019, building on earlier initiatives like "Insurance Khata" (2017) which targeted underserved populations.

The regulatory sandbox guidelines encourage innovation in the following areas:

- Insurance solicitation and distribution
- Underwriting models
- Policy servicing and claims handling

Key eligibility criteria for applicants include:

- A minimum net worth of **INR 25 lakh sustained over the past three years**
- A clearly defined innovation goal with consumer benefit
- A **six-month test window**, extendable by another six months

This progressive regulatory framework, combined with rising customer digital readiness, has made India a promising landscape for InsurTech innovation. As this paper explores, the past decade has laid the groundwork for India's emergence as a global hub for affordable, tech-driven insurance models.

**Review of Literature:**

Recent research sheds light on various aspects of InsurTech in India. Amnas, Raja, & Velmurugan (2025) found that perceived ease of use, usefulness, trust, awareness, and promotional offers are key drivers of InsurTech adoption, providing insights for insurers and policymakers. Garg & Sharma (2025) highlighted the positive impact of AI and telematics in motor insurance, noting improved claim processing and personalized pricing, leading to increased operational efficiency and customer engagement. P. K. (2025) evaluated trends in the broader InsurTech ecosystem, emphasizing the role of smart contracts, blockchain, and AI in streamlining policy issuance and claims, driven by rising consumer demand and trust in automated settlements, particularly among millennials. Shah, Laghate & Chelawat (2024) proposed a conceptual model for life InsurTech adoption, stressing the importance of service quality, awareness, and trust to boost consumer confidence. Finally, Sumathy & M. (2024) detailed how InsurTech, through AI, blockchain, and IoT, has enhanced accessibility and efficiency in healthcare insurance, reaching underserved communities and achieving cost savings in claim settlements.

**Scope of the Study:**

This study focuses on the evolution and performance of India's InsurTech ecosystem from 2015 to 2024. It examines global benchmarks, funding patterns, insurance category shifts, regulatory reforms (IRDAI Sandbox), and technology-led innovations in general, life, and health insurance. The scope includes comparative insights across key global markets like the US, UK, and China.

**Objectives of the Study**

1. To analyze the growth trajectory of India's InsurTech sector.
2. To evaluate the influence of emerging technologies.
3. To identify key drivers and barriers affecting InsurTech adoption in India.

**Research Methodology:**

This study adopts a descriptive and analytical research design to evaluate the evolution, growth trends, challenges, and overall impact of InsurTech in India between 2015 and 2024. Given the robust availability of credible secondary sources, the study does not rely on primary data such as surveys or interviews. Instead, it integrates both quantitative and qualitative methods to develop a comprehensive and evidence-based understanding of the sector's transformation and global positioning.

This study relies entirely on secondary data from credible sources like IRDAI annual reports, BCG industry analyses (2019-2024), and global trend reports from CB Insights and KPMG, alongside academic journals (2020-2025) and government policy documents. This comprehensive approach allowed for quantitative analysis of time-series data (2015-2024) to track InsurTech investments, startup growth, and market shifts, using comparative tables and graphs to identify key inflection points. Additionally, qualitative content analysis was applied to scholarly articles and policy reviews, interpreting deeper themes like regulatory risks and technological adoption barriers, with a special focus on India's regulatory responses and comparisons to global markets. Together, these methods provide a holistic understanding of India's InsurTech transformation without needing primary data collection.

**The emergence of InsurTech in the Capital Market:**

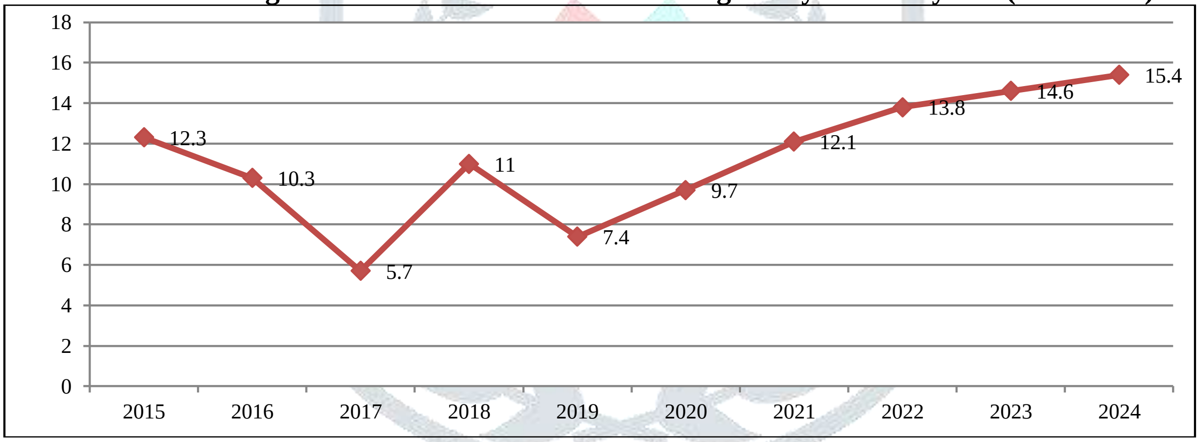
InsurTech has emerged as a transformative force in the global insurance landscape, with investment funding showing a remarkable upward trajectory, particularly from 2015 to 2024. As the sector matures, it is not only attracting substantial venture capital but also witnessing increased mergers and acquisitions aimed at scaling innovation and expanding market reach. The continuous inflow of capital has enabled start-ups to explore specialized domains within insurance, including health, general, and multi-line coverage, driven by advanced technologies like AI, IoT, and blockchain. The consistent rise in funding—from USD 8 million in 2015 to USD 912 million in 2024—reflects the sector's growing credibility and investor confidence. Venture capitalists are allocating larger portions of their portfolios to InsurTech, signaling its evolution from a niche innovation to a critical pillar of the broader financial ecosystem.

**Table 1- the emergence of InsurTech in the Capital Market**

| Year | Global InsurTech Investment (USD Billion) |
|---|---|
| 2015 | 12.3 |
| 2016 | 10.3 |
| 2017 | 5.7 |
| 2018 | 11.0 |
| 2019 | 7.4 |
| 2020 | 9.7 |
| 2021 | 12.1 |
| 2022 | 13.8 |
| 2023 | 14.6 |
| 2024 | 15.4 |

***Source: The Pulse of Fintech 2024 – Ian Pollari***
***Reference: [https://kpmg.com/xx/en/our-insights.html](https://kpmg.com/xx/en/our-insights.html)***

**The chart showing the amount invested in InsurTech globally over the years (2015-2024)**

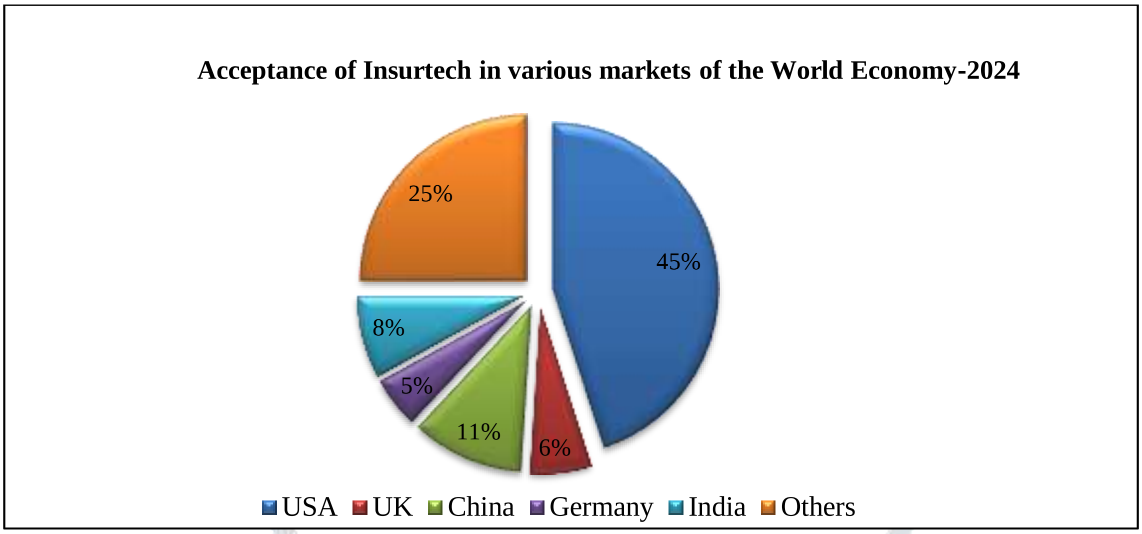



The global investment in InsurTech from 2015 to 2024 shows a clear trajectory of growth and maturation in the sector. Starting at USD 12.3 billion in 2015, the investment experienced fluctuations, dipping to USD 5.7 billion in 2017, likely due to early market adjustments and investor caution. However, a recovery began in 2018, and the trend strengthened significantly post-2020, driven by accelerated digital adoption during the COVID-19 pandemic. From 2021 onward, the sector saw consistent growth, reaching USD 15.4 billion in 2024. This upward momentum highlights increasing investor confidence in technology-driven insurance solutions and positions InsurTech as a key player in the evolving capital market landscape.

**Table 2- Acceptance of InsurTech in various markets of the World Economy (2015-2024)**

| Country | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|---|---|---|---|---|---|---|
| **USA** | 58% | 56% | 59% | 56% | 54% | 51% | 49% | 48% | 47% | 45% |
| **UK** | 10% | 9% | 9% | 8% | 8% | 7% | 6% | 6% | 6% | 6% |
| **China** | 5% | 6% | 7% | 6% | 6% | 7% | 8% | 9% | 10% | 11% |
| **Germany** | 4% | 4% | 5% | 5% | 5% | 5% | 5% | 5% | 5% | 5% |
| **India** | 2% | 3% | 3% | 4% | 4% | 5% | 6% | 6% | 7% | 8% |
| **Others** | 21% | 22% | 17% | 21% | 23% | 25% | 26% | 26% | 25% | 25% |

Source: *Quarterly InsurTech Briefing by WillisTowers Watson & CB Insights Reports*




**Source:** ***Quarterly InsurTech Briefing by WillisTowers Watson & CB Insights Reports***

Global InsurTech adoption from 2015 to 2024 shows evolving market dynamics. The USA's dominance is waning, with adoption falling from 58% to 45%, suggesting market maturity. Conversely, emerging economies like China and India are seeing consistent growth, increasing from 5% to 11% and 2% to 8% respectively, driven by greater digital penetration and policy support. The UK and Germany exhibit stable but lower adoption, possibly due to slower innovation or regulatory hurdles. Meanwhile, the "Others" category expanded from 21% to 25%, highlighting InsurTech's broadening global reach beyond traditional leaders, with significant momentum building in Asia and other developing regions.

**Impact of InsurTech in the Insurance Industry of India**

- InsurTech has revolutionized India’s insurance sector by streamlining policy issuance, claims processing, and customer engagement. With the help of AI, machine learning, blockchain, and IoT, insurers now offer real-time underwriting, customized micro-insurance, and usage-based policies. This has improved operational efficiency, lowered costs, and enhanced customer trust.
- Digital platforms have extended insurance accessibility to tier-II and rural regions, aided by mobile integration and telemedicine. Automated claims, smart contracts, and self-service portals are shortening the claim lifecycle and improving satisfaction. InsurTech also supports better fraud detection and risk modeling using big data.
- However, legacy systems and limited digital literacy in certain segments still present barriers. Despite this, India’s share in the global InsurTech market rose from 2% to 8% (2015–2024), signaling its shift from a passive to a proactive innovation leader.

**Scope of InsurTech in India:**

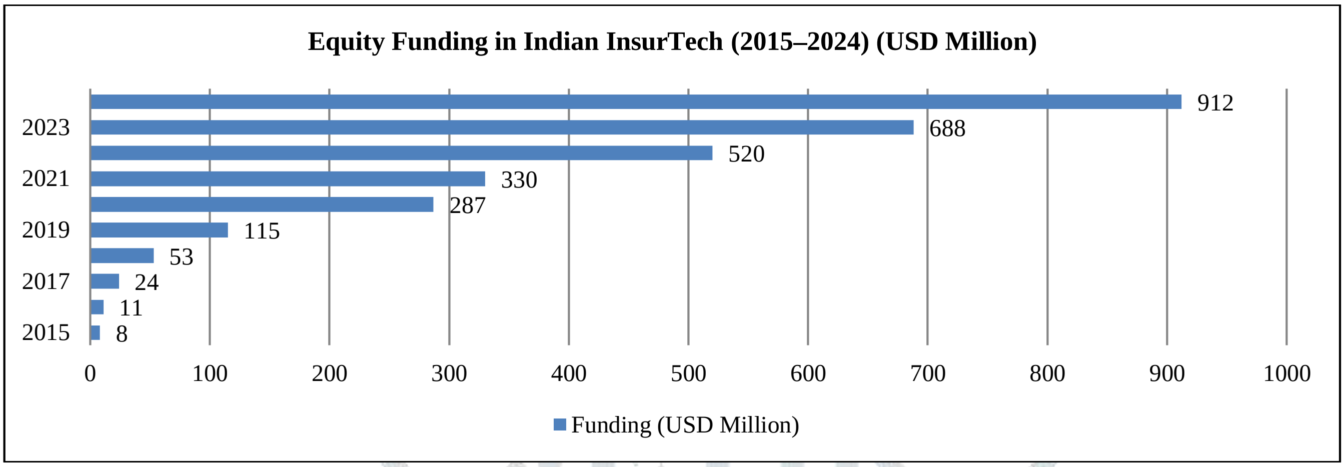
India's InsurTech sector has rapidly evolved, boasting over 160 active startups by 2024. These companies offer innovative solutions across four key segments. Policy Aggregators & Marketplaces like PolicyBazaar act as digital intermediaries, simplifying insurance comparison and purchase, especially for new buyers in underserved areas. API & SaaS Providers (B2B InsurTechs) such as Zopper and Coverfox offer modular tech tools to traditional insurers, aiding in areas like fraud analytics and automated underwriting. Lastly, IoT & Usage-Based Insurance (UBI) leverages IoT devices to enable personalized pricing based on behavior, rewarding safe driving or healthy lifestyles with lower premiums, as seen with Bajaj Allianz's pay-as-you-drive and health insurers offering step-based discounts. This dynamic ecosystem shows InsurTech is a core enabler in India, enhancing transparency and bridging the digital divide, with future growth expected from embedded insurance, AI advisory tools, and telemedicine integration.

**Indian InsurTech Industry Expansion:**

**Table 3- Indian InsurTech Industry Funding**

| **Year** | **Funding (USD Million)** |
|---|---|
| 2015 | 8 |
| 2016 | 11 |
| 2017 | 24 |
| 2018 | 53 |
| 2019 | 115 |
| 2020 | 287 |
| 2021 | 330 |
| 2022 | 520 |
| 2023 | 688 |
| 2024 | 912 |

***Source: BCG InsurTech Report 2024***




*Source: BCG InsurTech Report 2024*

The year-wise funding data from 2015 to 2024 demonstrates a strong upward trend in capital infusion into the InsurTech sector, highlighting its rapid growth and increasing investor confidence. Beginning with USD 8 million in 2015, funding saw a gradual rise in the early years, followed by a sharp acceleration from 2019 onward, where investments jumped from USD 115 million to USD 912 million in 2024. This nearly 114-fold increase over a decade reflects the sector's expanding footprint, fueled by technological advancements, favorable regulatory shifts, and growing demand for digital-first insurance solutions. The consistent year-over-year rise, especially post-2020, suggests that InsurTech is transitioning from an emerging innovation to a mainstream segment within the financial and insurance ecosystems.

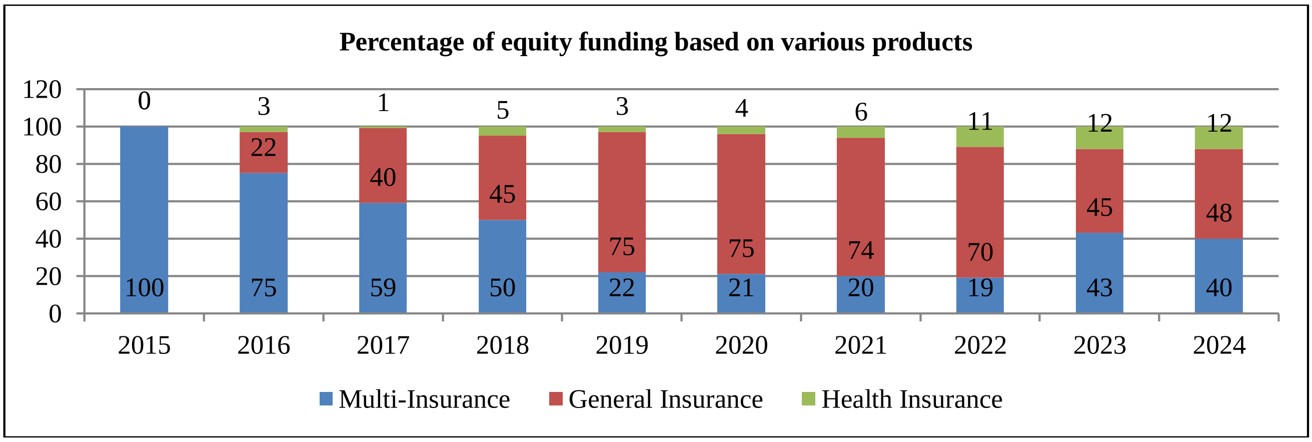
**Equity Funding Share by Insurance Type:**

**Table 4- Equity Funding Share by Insurance Type**

| Year | Multi-Insurance (%) | General Insurance (%) | Health Insurance (%) |
|---|---|---|---|
| 2015 | 100 | 0 | 0 |
| 2016 | 75 | 22 | 3 |
| 2017 | 59 | 40 | 1 |
| 2018 | 50 | 45 | 5 |
| 2019 | 22 | 75 | 3 |
| 2020 | 21 | 75 | 4 |
| 2021 | 20 | 74 | 6 |
| 2022 | 19 | 70 | 11 |
| 2023 | 43 | 45 | 12 |
| 2024 | 40 | 48 | 12 |

***Source: BCG InsurTech Report***

The equity funding share by insurance type from 2015 to 2024 highlights a notable shift in investor focus within the InsurTech landscape. In 2015, multi-insurance platforms dominated entirely, receiving 100% of funding, but this dominance significantly declined over the years, falling to 40% in 2024. General insurance emerged as the primary recipient of equity funding from 2019 onward, consistently capturing around 70–75% share during the peak years, before slightly declining to 48% by 2024. Meanwhile, health insurance, though starting with a minimal share, showed steady growth from 3% in 2016 to 12% by 2024, reflecting rising demand for digital health solutions and personalized insurance services post-pandemic. Overall, the trend indicates a diversification of investor interest, moving away from broad multi-insurance models toward specialized, sector-focused innovations, especially in general and health insurance



***Source: BCG InsurTech Report***

**Factors Affecting Growth of InsurTech in India**

Based on compiled sources, key growth drivers include:

- Technological Advancements: Innovations in AI, IoT, blockchain, cloud computing, and data analytics have enabled dynamic, customer-focused products and real-time services.
- Mobile & Internet Penetration: India had over 880 million internet users by 2024, enabling wide digital outreach and reducing distribution barriers.
- Young Demographics: With over 65% of the population under 35, digital-savvy consumers are adopting InsurTech platforms quickly.
- Regulatory Support: IRDAI's sandbox policy (2019) and fintech-friendly reforms have encouraged startups to innovate in a controlled environment.
- Affordability and On-demand Products: Rising demand for low-premium, modular insurance offerings like travel, health, and cyber-insurance drives product-level innovation.
- Strategic Collaborations: Partnerships between traditional insurers (e.g., LIC, ICICI) and InsurTech startups (e.g., Acko, Digit) are enhancing reach and efficiency.

**Risks of InsurTech-** Despite the promising growth of InsurTech in India, several structural and operational risks pose challenges to its sustainable development. These risks span technological, regulatory, ethical, and socio-economic dimensions:

Here are the challenges to India's InsurTech sector, presented point-wise:

- **Data Privacy and Protection:** InsurTechs handle sensitive personal data but may lack robust encryption and full compliance with the evolving Digital Personal Data Protection Act (2023), risking breaches and loss of trust.
- **AI and Algorithmic Bias:** AI in underwriting and claims can lead to discriminatory decisions if trained on biased data, potentially assigning unfair premiums and causing compliance issues.
- **Cybersecurity Threats:** Increased reliance on cloud-based systems makes InsurTechs prime targets for cyberattacks (phishing, ransomware), often with lean IT teams lacking advanced defenses, risking data and credibility.
- **Regulatory Uncertainty:** Innovation frequently outpaces regulation, creating grey areas in areas like smart contracts and data sharing, which can deter investment and consumer adoption.
- **Digital Divide:** Uneven digital infrastructure, low digital literacy, and lack of trust in automated systems, especially in rural areas and among the elderly, limit the inclusive growth and reach of InsurTech.

**Conclusion**

Over the past decade, InsurTech has transformed India's insurance sector through rapid technology-driven innovation. Equity funding surged from USD 8 million in 2015 to over USD 912 million by 2024, driven by AI, IoT, blockchain, and cloud adoption. These tools have enabled insurers to offer personalized, affordable, and accessible products.

Supported by IRDAI initiatives like the Sandbox and Bima Sugam, India's InsurTech ecosystem now influences global trends. Though challenges like data privacy and digital literacy persist, strategic policy and tech infrastructure can address them. InsurTech will play a key role in achieving "Insurance for All by 2047."

- **Competing Interest:** The authors declare that they have no competing of interest.
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