Recent Trends and Capabilities of Insurtech in India

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Abstract

Innovation and newer technology brought efficiency gains in the finance sector drastically through fintech. Insurance sector is no exception from these movements, which coined a new term 'Insurtech'. Insurtech refers to the technological innovations implemented in the insurance industry for the purpose of creation, distribution and administration of insurance business. This becomes catalyst agent in the insurance sector especially after COVID 19. Now the insurance companies make use of latest advancement of technology like Internet of Things (IoT), drones, telematics, the blockchain, smart contracts, artificial intelligence (AI) etc. This provides new ways to measure, control, engage customers, reduce cost, improve efficiency and increase customer experience. This study focuses on the recent trends in the Insurtech and its capabilities in the insurance industry across glob. This study also aims to explore Indian experience in the adoption of this newer technology.

Keywords: Insurtech, big data analytics, Artificial Intelligence, Mobile apps

1. Introduction

The business of the insurance companies remains the same for decades due to a risk-averse culture and they are very much resistant to change. After the introduction of newer technologies insurance industry become competitive and growing market. Such technological movements resulted in the formation of new term 'Insurtech'. It is the subset f the fintech. It is the technology for the creation, distribution and administration of insurance business. Online and smart phone apps, digital claim processing tools, wearables, GPS tracking, online policy handling and automated processing are all Insurtech. It also collecting and analysing customer data for providing better service. Now customers need policies with some click and some time they insurance policy for some time. Moreover they demands personalised policies than traditional policy. For this Insurtech is the solution and the new generation companies were implementing this already.

2. Objectives of the Study

Objectives of this study are as follows.

1. To understand the recent trends in the Insurtech.
2. To know the capabilities of Insurtech.
3. To know the developments of Insurtech in India.

3. Recent Literature

Cosma and Rimo (2024) explored the transformative impact of technology on the insurance sector in their study "Redefining Insurance Through Technology: Achievements and Perspectives in Insurtech." They detailed how technological advancements, particularly Insurtech innovations, have redefined traditional insurance models by enhancing efficiency, customer engagement, and personalized services. Their work emphasized that while technology offers vast opportunities, it also presents challenges related to regulation and customer trust.

Sosa and Montes Pineda (2023), in their article "What is an Insurtech? A Scientific Approach for Defining the Term," addressed the conceptual ambiguities surrounding the term 'Insurtech.' Through a scientific methodology, they proposed a standardized definition of Insurtech, distinguishing it from traditional technological applications in insurance. Their work provided a foundation for future research and policy-making by clarifying the evolving boundaries and scope of Insurtech activities.

Chang (2023) investigated whether Insurtech startups are truly disruptive forces in the insurance industry in his study "Do Insurtech Startups Disrupt the Insurance Industry?" The findings revealed that while Insurtech startups significantly influence certain segments of the market, such as customer acquisition and claims management, full-scale disruption remains limited due to strong incumbent players adapting quickly through strategic collaborations and acquisitions.

Quan, Hu, Dong, and Valdez (2024) focused on the application of Insurtech innovations to enhance business insurance models in their research titled "Improving Business Insurance Loss Models by Leveraging Insurtech Innovation." Using real-world proprietary claims data and machine learning methods, they demonstrated that Insurtech integration leads to superior risk classification and predictive accuracy. Their study called for greater collaboration between academic researchers and industry practitioners to drive further improvements in insurance modelling.

Suryavanshi (2022) provided an overview of emerging trends, challenges, and opportunities in the Insurtech sector in the paper "The Insurtech Revolution in Insurance Industry: Emerging Trends, Challenges and Opportunities." The study highlighted key trends such as the growing use of AI, blockchain, and IoT, while also discussing the critical hurdles of cybersecurity, regulatory compliance, and customer data privacy that companies must overcome to ensure sustainable growth.

These studies offer a comprehensive view of the evolving Insurtech landscape, highlighting technological advancements, conceptual clarifications, market dynamics, and practical applications in enhancing insurance services.

4. Methodology

Descriptive research methodology is used in this paper. Secondary data sources were used to get data regarding Insurtech.

5. Capabilities of Insurtech

In recent years, Insurtech has rapidly evolved, reshaping the global insurance landscape through the adoption of advanced technologies such as artificial intelligence (AI), blockchain, Internet of Things (IoT), and big data analytics. One of the most significant trends is the use of AI for personalized underwriting, dynamic pricing models, and claims automation, improving both operational efficiency and customer experience. Blockchain technology is being increasingly adopted to ensure data transparency, security, and fraud prevention in policy management and claims processing. IoT devices,

such as wearables and telematics, are enabling insurers to offer usage-based insurance products, promoting proactive risk management. Additionally, the integration of machine learning models with traditional actuarial techniques is enhancing risk assessment and predictive analytics capabilities. The rise of embedded insurance, where coverage is seamlessly offered at the point of sale through digital platforms, is another notable trend driving growth. Overall, Insurtech is expanding the capabilities of insurance companies, enabling them to offer more customized, efficient, and customer-centric services, while also creating new business models that are reshaping the competitive landscape. Based on the reviews and other secondary data, capabilities of Insurtech are summarised below.

Figure 1 : Capabilities of Insurtech
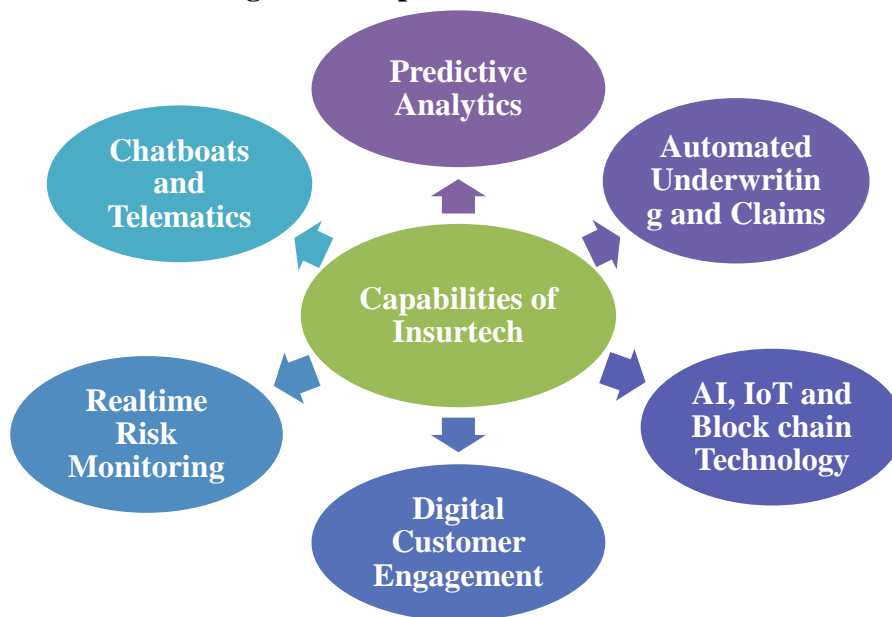
Insurtech has introduced a wide range of capabilities that are revolutionizing the insurance industry. One of its key strengths is the ability to automate underwriting and claims processes using artificial intelligence (AI) and machine learning, resulting in faster, more accurate decision-making and improved operational efficiency. Insurtech also leverages big data analytics to offer personalized insurance products, enabling insurers to tailor policies based on individual customer behaviour and preferences. The integration of blockchain technology ensures enhanced data security, transparency, and fraud prevention in transactions and policy management. Additionally, Insurtech empowers real-time risk monitoring and management through IoT devices, such as telematics in vehicles and wearables for health monitoring. It also supports digital customer engagement by providing seamless, user-friendly platforms for purchasing, managing, and renewing insurance policies. Furthermore, Insurtech fosters innovative business models like usage-based insurance, peer-to-peer insurance, and embedded insurance solutions, broadening the market reach and accessibility. Overall, Insurtech's capabilities are transforming traditional insurance into a more agile, customer-centric, and technology-driven sector.
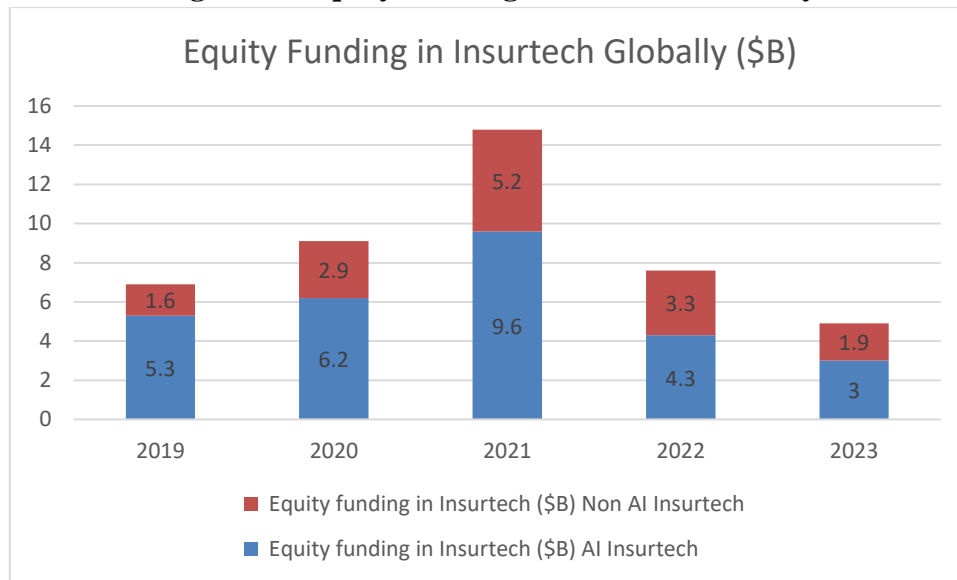
6. Recent Trends in Insurtech Globally

Table 1 – Equity Investment in Insurtech globally ($B)

Year	Equity Investment ($B)	Proportion of Investment	
		AI Insurtech	Non AI Insurtech
2019	6.9	77	23
2020	9.1	68	32
2021	14.8	65	35
2022	7.6	57	43
2023	4.9	61	39

Source: BCG FinTech Control Tower

Figure 2 : Equity Funding in Insurtech Globally

Source: BCG FinTech Control Tower

From the above table and diagram, equity investment in Insurtech witnessed an increasing trend from the year 2019 to 2021. In 2021, equity investment in Insurtech surged due to accelerated digital transformation needs driven by the COVID-19 pandemic and growing consumer demand for digital insurance solutions. Strong venture capital activity, successful IPOs, and innovative business models like embedded and usage-based insurance attracted significant investor interest. Advances in technology and global market expansion further fuelled the record-breaking investment levels. After 2021 it started to decline. After 2021, Insurtech investment declined due to rising interest rates and a tighter funding environment, making investors more cautious and selective. Many Insurtech companies struggled to deliver profitability, leading to scepticism about their long-term viability. Additionally, public market performance of early Insurtech IPOs was disappointing, cooling enthusiasm for new investments in the sector. The data shows that while AI Insurtech consistently received a larger share of investment compared to non-AI Insurtech, its dominance has been gradually declining over time. From a peak of 77% in the first period, AI Insurtech's share dropped to 57% by the fourth period before slightly rebounding to 61%. This suggests that although AI-driven solutions remain highly attractive, investors have increasingly diversified their interest toward broader Insurtech innovations beyond AI.
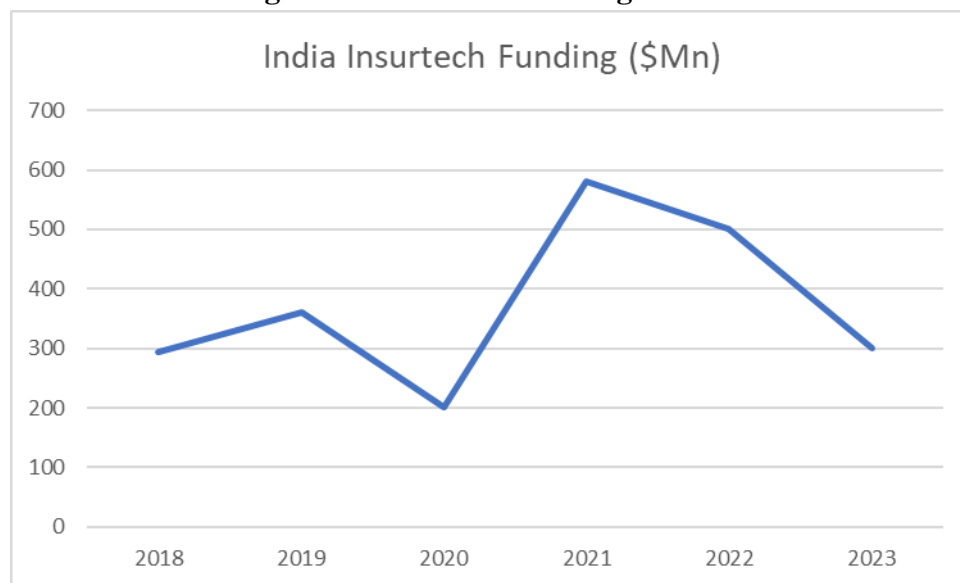
7. Recent Trends in Insurtech in India

Table 2 : Insurtech Funding in India

Year	India Insurtech Funding ($Mn)
2018	294
2019	361
2020	200
2021	580
2022	500
2023	300

Source : IIA

Figure 3 : Insurtech Funding in India

Source : IIA

India's Insurtech funding showed strong growth from 2018 ($294M) to 2019 ($361M), but dipped in 2020 ($200M) likely due to pandemic disruptions. It then peaked sharply in 2021 ($580M) during the global surge in digital adoption, but funding has been declining since, dropping to $500M in 2022 and $300M in 2023 as investor caution increased amid global economic tightening.

8. Findings of the study

1. Insurtech's capabilities are transforming traditional insurance into a more agile, customer-centric, and technology-driven sector.
2. Global Surge in 2021: Insurtech equity investment peaked in 2021 due to pandemic-driven digital adoption, strong venture capital activity, and successful IPOs.
3. Post-2021 Decline: Investment dropped after 2021 because of rising interest rates, funding market tightening, poor profitability of Insurtechs, and disappointing public market performance.
4. AI vs Non-AI Insurtech: While AI Insurtech consistently attracted a higher share of investment, its dominance has gradually declined, indicating growing investor interest in broader, non-AI Insurtech

innovations.

5. India Insurtech Funding Trends: Funding in India grew from 2018 to 2019, fell during the pandemic year 2020, and peaked in 2021. Post-2021, funding in India steadily declined in 2022 and 2023, reflecting the global slowdown in Insurtech investment.

6. Investor Caution: Across markets, investors became more cautious, focusing more on profitability and sustainable growth rather than just innovation and rapid scaling.

9. Conclusion

The Insurtech sector experienced a remarkable surge in investment during 2021, driven by accelerated digital transformation, innovative business models, and strong investor optimism. However, post-2021, a combination of macroeconomic pressures, investor caution, and the challenge of achieving profitability led to a significant cooling of funding activity. While AI-driven Insurtech remains a major area of interest, the gradual diversification toward broader solutions shows a maturing market. In India, the funding trend mirrored global patterns, peaking in 2021 before declining, reflecting a more cautious and selective investment approach. Overall, the Insurtech industry is transitioning from a rapid-growth phase to a focus on sustainable scaling, operational efficiency, and proven value creation.

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