





# Foreword by PwC



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Disruption, with its inherent challenges and opportunities, has been the hallmark of the insurance industry. While recent events such as the pandemic have increased awareness and the demand for insurance products globally, customer experience has emerged as the pivot for insurers to reinvent themselves in order to achieve greater penetration and growth. Moving away from conventional markets and distribution channels, insurers today are using innovative technologies and digitisation as enablers to reshape the insurance landscape, with personalisation as the fulcrum. The growth of InsurTechs – with their personalised, on-demand and faster propositions – is further pushing insurers to revisit their long-term strategies and business operating models, and embrace new technologies, processes and tools to stay ahead of the curve.

The insurance market in India is expected reach USD 200 billion by 2027. According to the Economic Survey 2022–23, life insurance penetration has gone up to 4.2% in 2020, which is similar to the figure in 2021. However, this number was significantly higher than the 2.7% growth² registered in 2001. Moreover, as per the survey, insurance density in India has increased from USD 11.1 in 2001 to USD 91 in 2021. India's insurance market is slated to grow multifold over the next decade. As per the Insurance Regulatory and Development Authority of India's (IRDAI's) Annual Report 2021–22, the country's life insurance sector is the biggest in the world with about INR 1,00,326 crore (USD 8.5 billion) linked premiums yearly and a positive annual growth rate of 10%.

Further, as per the IRDAI's press note dated 25 November 2022, it has committed to enabling 'insurance for all' by 2047, where every citizen will have adequate life, health and property insurance cover, and every enterprise will be supported by appropriate insurance solutions.

Key accelerators driving the transformation of this sector include demographic changes, post-pandemic behavioural changes, growing consumer expectations, evolution of new technologies such as blockchain, the internet of things (IoT) and artificial intelligence (AI), risk mitigation and fraud prevention, and stringent compliance regulations.

Given this backdrop, the Assocham Insurance Leaders Meet 2023 on 'Regulations, Disruptions and Dynamic Product Mix' provides an opportune platform to examine this sector through the prism of the parameters that have come to redefine it. Our paper 'Technology disruptions in insurance: Challenges and the way forward' studies the key external and internal factors that prompted the digital transformation of the sector and maps these factors to the innovation that has taken place. It also assesses the role and impact of InsurTech companies in leading technological transformations and simultaneously highlights the inherent challenges. The paper also underlines the long-term key trends that one needs to be aware of, the importance of prioritising and managing cyber risks and fraud, and the need to strike the right balance between a resilient present and agile future, with the customer at the heart of this ecosystem. We hope you find this paper interesting and relevant and look forward to hearing your views.

PwC | ASSOCHAM | Technology disruptions in insurance: Challenges and the way forward

<sup>1</sup> https://timesofindia.indiatimes.com/blogs/voices/outlook-for-general-insurance-industry-2023-a-promising-and-transformative-year/

https://www.indiabudget.gov.in/economicsurvey/ebook\_es2022/files/basic-html/page170.html

<sup>3</sup> https://www.thehindu.com/business/india-to-emerge-as-one-of-the-fastest-growing-insurance-markets/article66455066.ece

<sup>4</sup> https://irdai.gov.in/document-detail?documentId=1632108

# Foreword by ASSOCHAM



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The insurance sector is among the key growth sectors in the world. In the upcoming decade, the Indian insurance market is expected to become sixth-largest market worldwide. With a sizable investment portfolio and universal coverage of personal and business risks, the sector ensures financial stability while contributing to the economic growth of the country. As per IBEF data, the insurance market in India is expected reach USD 222 billion by 2026. Insurance companies in India have a come a long way and offer various products catering to a wide array of industries such as motor, agriculture and health.

In past few months, the insurance industry is going through several transformations which are helping the insurers to stay relevant with changing times and the latest digital disruptions. Under the highly vigilant and progressive IRDAI, the Indian Insurance sector is bound to grow and develop manifolds in the near future.

With India is taking the centre stage with events such as the G20 summit, the sector is bound to garner interest of global players due to the increased digitalisation. Furthermore, tech interventions are expected to further evolve the insurance sector with the development of new models, which will change the insurance landscape significantly.

We hope that this report by ASSOCHAM and PwC will provide relevant insights and perspectives to stakeholders to help them build future-ready businesses.

https://www.ibef.org/industry/insurance-sector-india#:~:text=until%20November%202022.-,Insurance%20market%20in%20India%20is%20expected%20reach%20US%24%20222%20billion,and%20advancements%20in%20A I%20algorithms.



Perminder Jeet Kaur Senior Director ASSOCHAM East and Northeast

In the past few years, the insurance sector has witnessed massive growth. Moreover, the pandemic accelerated the pace of digitalisation in the sector. Insurance penetration picked up, with rising demand for health and life insurance policies. Due to the increased penetration of insurance products, the IRDAI has taken several initiatives towards boosting the same. The goal of 'insurance for all' by 2047 shall help further with insurance penetration. However, factors like lack of financial awareness, lack of trust in insurance and high distribution costs continue to affect the industry. Also, owing to the recent budgetary announcements, the impact on business operations would soon be apparent.

New technologies, such as AI, machine learning (ML), rule engines and robotic process automation (RPA), are facilitating faster claim settlements and buying experiences. Digital transformation is helping the sector and insurers to be future ready. Although digital transformation is helping the industry make significant strides, it is also important to note that it comes with its own challenges. Incorporating new technologies requires an enhanced digital infrastructure and awareness towards issues such as cybersecurity risks.

Therefore, continuous engagement of insurers, regulators, channel partners and consumer association is needed to ensure that these changes are incorporated seamlessly and result in the overall growth of the sector.

We hope that this report by ASSOCHAM and PwC report provides insights to stakeholders to build a roadmap for future business models.

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# 1. Introduction

The insurance industry has seen significant transformation in the last few years, in terms of both business and technology. Some key accelerators driving this transformation are:

- 1 demographic changes
- 2 post-pandemic behavioural changes
- 3 growing consumer expectations
- introduction of new technologies like blockchain, internet of things (IoT) and artificial intelligence (AI)
- 5 risk and fraud prevention
- stringent compliance regulations.

The growth of InsurTechs, with their personalised, on-demand and faster propositions, is further pushing insurers to embrace and adopt new technologies, processes and tools, and rethink their long-term strategies. Therefore, insurers need to start looking beyond conventional tools like digitisation and legacy upgrade and create new offerings and solutions to fuel innovation and growth.

In this report, we highlight the key factors that are instrumental for insurers to enable growth and transformation in their businesses, while outlining the challenges faced by them due to rapid tech transformations in the past year. We also touch upon the key trends in the industry and analyse how insurers can strategise to serve the futuristic needs of customers.





2. How technology is reshaping the insurance industry

### Major technology trends

The current insurance landscape is seeing disruptions in the work environment and technology areas. These disruptions are due to the constant efforts to bridge the gap between a customer's need to buy an insurance product and an insurer's goal to provide a seamless digital experience. Insurers are gradually moving away from traditional methods towards more digitalised practices. Furthermore, there is significant focus on equipping the distribution workforce and employees with advanced tools and techniques to adopt in the current scenario and deal with potential future crises of similar nature.

Some of the key technology trends/disruptions across customer acquisition, servicing and operations phases in the insurance life cycle have been discussed below.

### Customer acquisition

### Adoption of phygital sales

The industry is facing some practical challenges on how customers interact with intermediaries while buying insurance. Phygital – a combination of physical and digital – is helping insurers to gain a significant advantage over competitors who have not yet equipped their distribution workforce with remote sales and servicing tools.

Phygital combines traditional processes with the rapidly growing technological advancements and provides a 360-degree experience to the customer. It takes them on a unique policy-sourcing journey by increasing their interactivity and enhancing the overall experience.

### Collaboration through video conferencing

For remote sales, it is extremely important for employees and intermediaries to be able to explain the benefits/terms and conditions of a product to the customer and help them take correct and conscious decisions. At a time when digital outreach has become the norm, video calling is creating more sales opportunities and helping insurance agents in converting and closing leads.

### Co-browsable buying journey

Buying an insurance policy could involve the exchange of a large amount of information between the customer and the company. Agents may have to resolve multiple queries and clarifications while assisting the customer in choosing the right plan.

Insurers are looking to use the omnichannel co-browsing experience to enable insurance agents to handhold customers, provide them with clarity at every stage in their journey and gain their trust while making transactions.

### Al-driven robo-advisors

Robo-advisors help in providing insurance services to clients, with minimal human interference. They can independently collect data from customers, analyse and apply them on financial data models, and provide personalised product recommendations to customers.

### Analytics to build micro segments of customers

Customer behaviour and their data consumption habits are evolving rapidly. These variations can be tracked and predicted at some levels by combining new sources (to extract granular data), technology and advanced analytics.

Advanced analytics allow insurers to use the extracted data to build customer models with micro segments based on their risk appetite, demographics, location, etc. These models enable insurers to take better decisions, and the derived insights help them in designing customer-centric initiatives that improve acquisition and retention, in addition to creating upselling and cross-selling opportunities and driving better-targeted marketing campaigns.

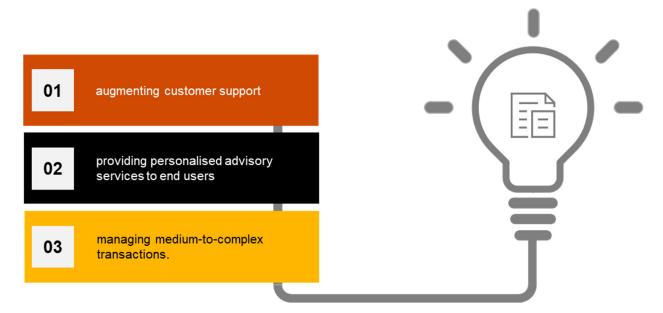
### Customer servicing

### Cognitive assistance through chatbots

Even though insurers were using chatbots before, chatbot usage gained significant traction over the past few years. Many insurers have mobile applications to support their customers, but they often fail to provide end-to-end assistance. Users may find it challenging to acquire precise information, which causes them inconvenience.

Cognitive assistance through intelligent bots provides an omnichannel experience and a 24x7 grievance-redressal mechanism in multiple languages, thereby delivering a unique, high-quality customer experience and reducing operational costs.

Some of the use cases for cognitive bots in insurance are:



### Claims - first notice of loss (FNOL) automation

A key digital transformation initiative undertaken by insurers is the automation of the claims process. The FNOL process is still imprecise and unstructured for many insurers. Earlier, it was usually executed by agents via long phone calls, with the agent asking very open-ended questions which further confused the insurer and complicated the whole process.

As part of the FNOL automation, insurers are looking at creating more structured, consistent and machine-readable data sets by using claims data right from the beginning of an event. Using automated workflows, intelligent information extraction from various sources, cognition-based processing and decision making, FNOL automation will transform an insurer's end-to-end claims process.

Moreover, use of Al-powered virtual agents for automating insurance claims services (starting from automatic image-based damage assessment for motor claims to streamlining back-end claim processing operations) is gradually becoming the norm.

### Usage-based insurance (UBI)

Today, smartphones have altered how people buy insurance. Technology has made the entire insurance ecosystem very simple. Now, the focus is on moving from protection to prevention, which is being enabled by telematics or UBI. In UBI or pay-as-you-drive (PAYD) insurance, the policy premium is directly linked with the use of the insured product. In the auto insurance industry, telematics is being used to track, store and transfer driving-related data. This data comes in handy to help understand driving patterns and charge appropriate vehicle insurance premiums.

### **Business operations**

### Leveraging IoT

Insurance companies have embarked upon several digital transformation initiatives during the past year. These initiatives are helping the industry make operations more agile and scalable.

However, these disruptions have posed various challenges to property and casualty (P&C) insurers. Unpredictable losses due to catastrophic environment events are also adding risks for the insurers. Thus, InsurTechs and many P&C insurance firms are already using IoT-enabled devices to collect data and transform their portfolio to UBI products to provide value-add services to their customers and increase their engagement quotient.

IoT-enabled wearables allow health insurers to collect data and provide personalised services and discounts to their target customers. Moreover, inputs from sources like telematics, home sensors and drone surveys are helping insurers to make more accurate decisions on new product offerings and underwriting.

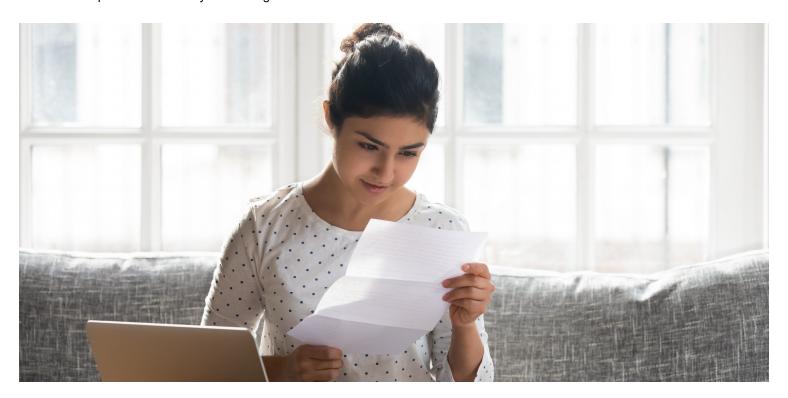
### Al and robotic process automation (RPA)

Many insurance companies find themselves overwhelmed with back-office processes and monotonous activities like claims processing, underwriting and quote generation. As a result, they are unable to provide timely customer service, meet sales, growth and profit targets, or maintain a competitive advantage among peers.

### **Cognitive underwriting**

Underwriting is a very critical part of the insurance business and has a significant impact on the insurer's risks. Thus, to enhance accuracy and efficiency during risk assessment, it is important to use advanced tools like data analytics along with machine learning (ML) to study data patterns and to augment the underwriter's capability to assess policy documents.

Many insurers are now automating their business processes to increase their ability to accommodate more clients in a seamless manner. While some insurers have partially automated tasks like document scanning and data entry using optical character recognition (OCR), many others are leveraging greater automation capabilities offered by RPA – augmented with AI and ML.



### Growing importance of InsurTechs in the ecosystem

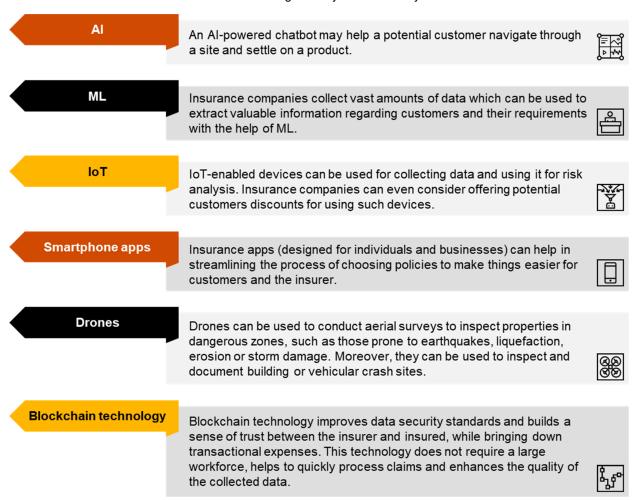
With around 35% of the USD 3.66 billion capital invested in the Asia-Pacific (APAC) region,<sup>6</sup> India has emerged as the second-largest InsurTech market in this region. Three Indian companies have recently entered the unicorn group. In addition, more than 140 InsurTech start-ups<sup>7</sup> are currently operating in India.

During the past two years, India has leapfrogged the adoption of digital ecosystem by a decade. The industry has seen significant disruptions in terms of digitally enabled operations, with the adoption of sophisticated data across commercial lines. The volume and velocity at which data is available, in addition to risk prevention, fraud detection and predictive analysis, has now become the norm.

With smartphones being the go-to device for most things today, consumers expect the same ease in the case of insurance. The rigorous security policies of InsurTech companies maintain the confidence of consumers when they transact online.

InsurTech is revolutionising the insurance industry by providing customers and service providers a seamless, error-free and safe way to conduct business. To benefit customers, insurance companies should invest in new technologies and customise solutions based on individual needs. Moreover, regulators should be onboarded on evolving and upcoming platforms to ease processes.

Some of the areas in which InsurTechs are leading the way in the industry:



https://economictimes.indiatimes.com/tech/startups/india-is-second-largest-insurtech-market-in-asia-pacific-sp-global-says/articleshow/82735254.cms

https://bfsi.economictimes.indiatimes.com/news/insurance/indias-insurtech-moment-the-growth-story-of-less-talked-sector/95434110

Advanced analytics

Using data analytics, insurance companies can get deeper insights into customer needs and provide targeted products and services. They can process claims quickly and customise marketing for each client, helping them gain a competitive edge over other insurers.



**Embedded insurance** 

Insurance-as-a-service is disrupting the traditional insurance industry. Companies now offer insurance coverage as part of their product or service. This enables customers to easily obtain the coverage they need while being in the process of purchasing another product or service.



### Challenges around digital and technology transformations

Known to be cautious and process-oriented, the insurance sector has evolved at a slow pace in the past. However, due to the COVID-19 pandemic, insurers had to respond to the changes happening around their core business as well as the larger economic and social landscape. New product inclusion, changes in existing operating procedures, surge in claims, growing customer expectations of seamless service, changes in the distribution mix and restrictions in social interactions pushed insurers to adopt different technologies across operations. At times, these new initiatives did not undergo thorough due diligence and posed additional risks and challenges to the insurer.

Three most vulnerable areas which are potentially impacted with large technology interventions are:



### Security vulnerabilities

Insurers had to scale up their infrastructure for managing the surge in claims and remote servicing. They also had to enable remote working and make the existing applications accessible for work-from-home set-ups. Many new applications were also introduced to expedite business processes, and changes were made in the existing digital channel interactions. All of these changes happening across the application, infrastructure and network layers pose significant threats to security.

Example: In March 2021, a Chicago-based insurance company had to pay USD 40 million to regain control of its systems after a ransomware attack.

### Data management issues

As insurers are focusing on the creation/enablement of new channels and altering of legacy business processes, they are handling different types of information and exploring various collection mechanisms. These changes demand a backbone of robust and flexible data management framework to capture and process new sets of information. A few issues arising from the new changes are:

- data quality issues while handling data from new sources
- maintaining a single source of truth and consistency in channel management
- · streamlining fraud detection.

**Example:** The US Government estimated that prison inmates received incorrect payments worth over USD 1 billion in unemployment insurance due to a failure to check social security numbers and duplicate payments to the same individual.

Degraded user experience

Rapid enablement of an omnichannel strategy has led to an additional pressure to build a connected ecosystem and equip those channels with all required capabilities of the policy life cycle to manage customer expectations and maintain consistency.

When customers use alternative channels for complex queries or transactional requirements, insurers often revert to traditional options, thus degrading the overall customer experience.

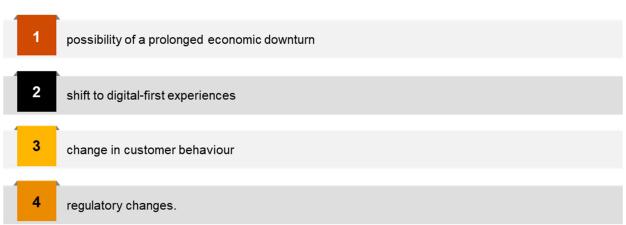




# 3. The road ahead

### **Emerging trends**

Along with the current challenges, let us also look at some trends which may last even after the disruptions are over. These trends will impact business decisions for all industries, and the insurance sector is no exception. The following trends are expected to be the most impactful for the insurance sector and will determine its future course of action:



Each factor poses some unique ask to insurers in their interaction with customers, partners, shareholders, Government and regulatory bodies. Thus, the business and technology strategies adopted by insurers must be aligned with these asks to make organisations future-ready and easily adaptable to long-term changes for better sustainability.

Factors	Asks from insurers of the future
Economic downturn	<ol> <li>Innovative pricing for targeted user segment</li> <li>Pay-as-you-use model</li> <li>Product with minimalistic and need-based coverage</li> <li>Flexible premium payment option</li> <li>Training of distribution workforce to communicate with people going through economic stress</li> <li>Continuous engagement with employees and agents to boost morale</li> </ol>
Digital-first experience	<ol> <li>Digital enablement of product sales</li> <li>Relaxed/digital verification process</li> <li>Enablement of remote sales through agency and partner channels</li> <li>Optimisation of claims and servicing process</li> <li>Digital upskilling of employees and agents</li> </ol>

Factors	Asks from insurers of the future	
Change in customer behaviour – increasing digital affinity	<ol> <li>Focus on direct digital channels, and seamless omnichannel sales and servicing of requests</li> <li>Personalised user experience and product offerings</li> <li>Reduction of turnaround time in sales and servicing journey</li> <li>Partnership with e-commerce platforms and ecosystem players</li> </ol>	
Regulatory changes	<ol> <li>Faster roll-out of products</li> <li>Flexible and modular business processes</li> </ol>	

- Emerging technologies like low-/no-code (LCNC) platforms, Al-based chatbots and ML-based predictive learning are disrupting customer experience. LCNC platforms can help insurers to improve operational efficiency, reduce operating costs and enhance customer experience by providing end-to-end automation of critical business processes. LCNC solutions can also automate the entire claims processing workflow from intake to settlement. Moreover, it can route claims to the right adjusters, automate data collection and processing and can be integrated with third-party systems to facilitate claims handling. Al-based chatbots have shown great potential not only in terms of understanding speech but also being able to generate speech. Any of the leading language models could be used to provide automated customer services through chatbots, FAQs, multilingual support, etc.
- Generative AI has the ability to provide insurers with valuable insights into customer behaviour and
  preferences. By using advanced ML algorithms, such as deep learning and neural networks, insurers can
  analyse large amounts of data and identify patterns and trends. This information can then be used to
  develop personalised products and services for customers, leading to improved customer satisfaction
  and loyalty.
- Incorporating wellness in insurance is helping insurers to provide more services to customers and
  introduce gamification in the form of wellness points, which can be used either as discounts on premiums or
  in the form of membership benefits. According to the recent IRDAI guidelines on wellness and preventive
  features, as part of promoting wellness and preventive regimes, insurers may offer reward points to those
  policyholders who comply with or meet the set criteria of the same. As ecosystems continue to develop
  globally, cloud-native insurers will be best positioned to act as ecosystem orchestrators acting as a
  connecting hub among customers, distributors, InsurTech, healthcare providers, carriers and reinsurers.
- Emerging tech-driven distribution channels like bancassurance, distribution through InsurTech partnerships and digital insurance advisory services have widened the reach and reduced costs. This digital transformation across the value chain of the insurance sector is enabling shorter policy creation cycle and resulting in an increase in sales by providing an omnichannel experience to customers. For example, initiating a quote online and fulfilling the insurance buying journey at the bank branch or through a telecaller, focuses on reducing customer drop-offs. On the other hand, insurance advisory service platforms offer many value propositions to customers such as convenience of access, product comparison across multiple insurance players on a single platform, assisted decision making, and a unified omnichannel digital experience throughout the insurance policy journey. As digital maturity of bancassurers improves, banks and insurance companies will be able to engage customers more proactively right from the initial need assessment to advise suitable products, resulting in improved conversion rates.

### Technology strategies that will increase industry resilience

While most of the decisions and initiatives taken by insurers in the face of the above emerging trends have been organic – with clear benefits and some unavoidable consequences – the focus should now be on assessing the long-term impact and building a future-ready IT ecosystem. This may require a fundamental change in outlook. It is also time to assess the amount of bandwidth insurers have spent on ensuring business continuity and resilience and how much of a shift this would entail from their long-term strategic vision around technology. While defining and prioritising the immediate and long-term actions, chief information officers (CIOs) should have answers to the following three questions:



Do I have a business continuity plan for any future event?



How do I respond to the current and future environmental, social and consumer trends?



Can I turn a trend into an opportunity and innovate to gain a competitive edge?

After assessing the growth of technology in both the Indian and global insurance sector and evaluating the current and future technology landscape, we have developed the Stabilise–Adopt–Maximise (SAM) phase outlook model as a base guideline for insurers to identify technology interventions across different maturity phases. The framework captures the broad dimensions of business operations pertaining to each phase, examines important events justifying these dimensions and lists relevant technology initiatives to be considered.

### **SAM** model

Phase 1: Stabilise (Focus on business continuity in times of uncertainty)

Dimension	Case in point	Possible technology interventions
Scale	Increased call volumes post- pandemic or any type of social/environmental disaster	<ol> <li>Call centre automation through bots</li> <li>Cognitive and fast resolution of customer queries through ML and RPA</li> <li>Proactive customer communication management</li> </ol>
	Surge in claims (both health claims and loss of lives)	<ol> <li>Simplified business process management</li> <li>Advanced document processing and reduction of manual intervention</li> <li>Horizontally scalable technology architecture and cloud adoption</li> </ol>
	Surge in specific channel traction and product sales	<ol> <li>Complete automation of issuance pipeline, including underwriting for majority of cases</li> <li>Horizontally scalable technology architecture and cloud adoption</li> </ol>

Dimension	Case in point	Possible technology interventions
Security	Increase in cyberthreats due to work from home and rapid application roll-out	Strengthening of the application and network security backbone
Volatility and uncertainty	Emergency regulatory changes and mandates in sales/servicing/claims process Inclusion/introduction of specific processes for the benefit of customers/insurers (e.g. e-KYC, video KYC) Emergency product launch	<ol> <li>Decoupled and atomic business process</li> <li>Flexible technology architecture</li> <li>Rapid prototype product and full-fledged development and roll-out capability (LCNC platform)</li> <li>Comprehensive product configurator</li> </ol>
Employee engagement	Job insecurity, lack of confidence and clarity due to prolonged work from home  Difficulties in performing end customer facing activities (sales, servicing) for agency workforce	<ol> <li>Infrastructure expansion and availability of key applications in the remote setup</li> <li>Enablement through mobility</li> <li>Investment in digital employee engagement apps</li> </ol>

Phase 2: Adopt (Respond to and embrace long-term trends)

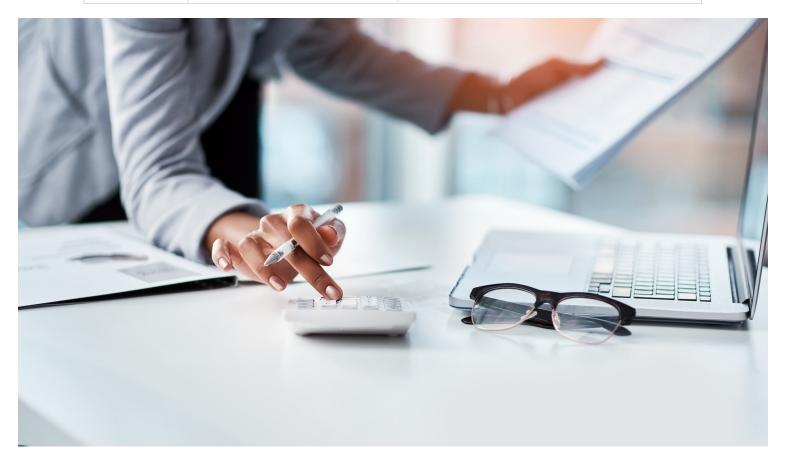
Dimension	Case in point	Possible technology interventions
Focus on direct digital	Enhanced customer footfall on direct digital channels for policy buying, servicing and claims	Enablement of end-to-end policy life cycle of all products on digital channels through advanced back-end and third-party integration
		Faster product onboarding on digital channels through product configurator/low-code platform adoption
		Advanced digital marketing and deep personalisation of the customer journey by leveraging the power of digital experience platforms
		Guided digital assistance through video conference/co-browsing
		Seamless integration with aggregator or broker channel to support a multi-platform digital customer journey

Dimension	Case in point	Possible technology interventions
Empowering distribution	Agents want to perform remote sales and servicing by supporting single session need analysis, benefit illustration, fulfilment, KYC verification, document verification, etc.	<ol> <li>Video conferencing and deep integration enabled sales process adhering to all regulatory compliances</li> <li>Integration with smart identity verification, document verification capability</li> </ol>
Omnichannel experience	Customers demand unified and seamless experience across channels	<ol> <li>Integrated lead management</li> <li>Single source of known and unknown customer data repository</li> <li>Integrated tracking of all events and data-driven decision making to bring consistency and synchronisation across multiple channel touchpoints for users</li> </ol>
Claims transformation	Customers expect faster and hazardless claims processing	<ol> <li>Simplify business processes and bring in automation</li> <li>Implement ML-enabled document processing and fraud detection mechanism</li> <li>Collaborate with InsurTechs and leverage point solutions</li> <li>Strengthen real-time integration of claims ecosystem players</li> <li>Explore IoT for incident detection, damage calculation, etc.</li> </ol>

Phase 3: Maximise (Turn learnings into opportunities)

Dimension	Description	Possible technology interventions
Leveraging partnership and ecosystem play	Increasing adoption of e- commerce, payment and wallet solutions and related experience platforms (travel, wellness, healthcare, pharmaceutical, adventure sports) created new revenue channels through partnerships	<ol> <li>Open API architecture</li> <li>Advanced payment solutions integration</li> <li>Real-time and data-driven risk assessment</li> </ol>

Dimension	Description	Possible technology interventions
Innovative products and distribution	Because of increasing digital affinity, a connected ecosystem and the new normal way of handling customer information, insurers are accumulating huge amounts of data pertaining to a customer's personal information, habits and preferences  Proper harnessing of this data bank and careful consideration of social and environmental trends can help insurers design relevant products for future design, target the right user segment and define the most effective distribution channel	<ol> <li>Enterprise data lake</li> <li>Orthogonal data processing</li> <li>Advanced Al/ML</li> <li>Architecture to support sandbox environment</li> <li>Real-time data processing support and feedback mechanism for key decision-making processes</li> </ol>
Data-driven underwriting and risk selection	Consideration of ecosystem and customer behaviour data to augment the traditional underwriting process for better risk selection	
Dynamic portfolio management	Process real-time policy inflow and claims information, and calibrate the ongoing risk position and portfolio distribution accordingly	



# The way forward

While identifying the right technology initiatives is the first step of the process, strategising and defining priorities will depend on the core theme(s) insurers want to adopt and focus on in order to shape their market perception. In doing so, insurers will have to adopt a holistic approach by striking the right balance between resilience, adoption of emerging trends and embracing futuristic innovation.

We have identified a framework of three strategic themes that can help insurers plan technology innovation and adoption.

### Theme 1: Pivot to a chameleon organisation

Chameleon organisations are extremely flexible and capable of adapting to any external changes. Agility to make strategic decisions, ability to differentiate themselves from competitors and insulation from environmental volatility are some of the core competencies of an ideal chameleon organisation.

This era requires insurers to be flexible to the highest extent possible in terms of defining their business, territory, customer, product and operation. The business environment can be highly volatile at times. Shifts in customer behaviour, economic fluctuations, regulatory changes and technology disruptions are constantly giving rise to introducing new business operating models and ecosystems players.

Dynamic demand management across channels, faster collaboration with partners, and agility to roll out different products and business process changes will enable insurers to thrive in this environment.

Top technology interventions in focus:

- Modernisation of legacy systems to create a flexible, configurable and API-ready back-end for faster roll-out of products and changes in business processes
- Adoption of API-driven integration to standardise and accelerate the ecosystem integration capability and expand the distribution network
- Cloud-first approach to rapidly scale up application infrastructure to meet volatile market demand
- 4 Agile DevOps for faster roll-out of application and efficient change management

### Theme 2: Drive simplicity

In the last decade, customer centricity has emerged as one of the most important factors for an organisation to stay relevant and grow. Today's consumers are used to global digital platforms across e-commerce, logistics, hospitality, entertainment, etc., that provide deeply personalised offerings, behaviour-based recommendations and round-the-clock service with digital assistance. As a result, customers now have similar expectations from the financial services sector, which insurers will need to meet.

Given that insurance products are relatively complex compared to other consumable services, along with the fact that insurance penetration in India is much lower than it is in many other advanced economies, simplicity is a very crucial component for Indian insurers to drive customer centricity.

Therefore, there is a need for strategic investments to simplify user experience across the customer life cycle by providing a consistent omnichannel experience, reducing customer touchpoints, bringing in automation and rationalising the application portfolio to achieve better growth and reduce back-end operational overheads.

### Top technology interventions in focus:

- Adoption of digital experience platforms to drive a consistent omnichannel experience and deep personalisation
- 2 Introduction of collaboration tools to assist customers anywhere round the clock across channels
- Advanced application of AI, ML and automation to provide personalised offerings and reduce the TAT of key processes

### Theme 3: Prioritise multidimensional risk management

While risk management is the core competency of an insurance business, the magnitude of new risks that have arisen in the recent past has compelled insurers have to relook at their existing risk management framework and adopt a holistic approach for all of their functions. With changing customer behaviour, inclusion of different products and expansion of customer segments, the variability of risk and number of impacting parameters are growing manifold. Rapid expansion of operations and adoption of technology are leading to additional security risks.

Insurers will have to focus on building a robust framework of risk anticipation, assessment and mitigation by leveraging information from all possible sources. Churning of big data and applying advanced analytical techniques to implement insights across the operational value chain is going to be a focus area across the sector.

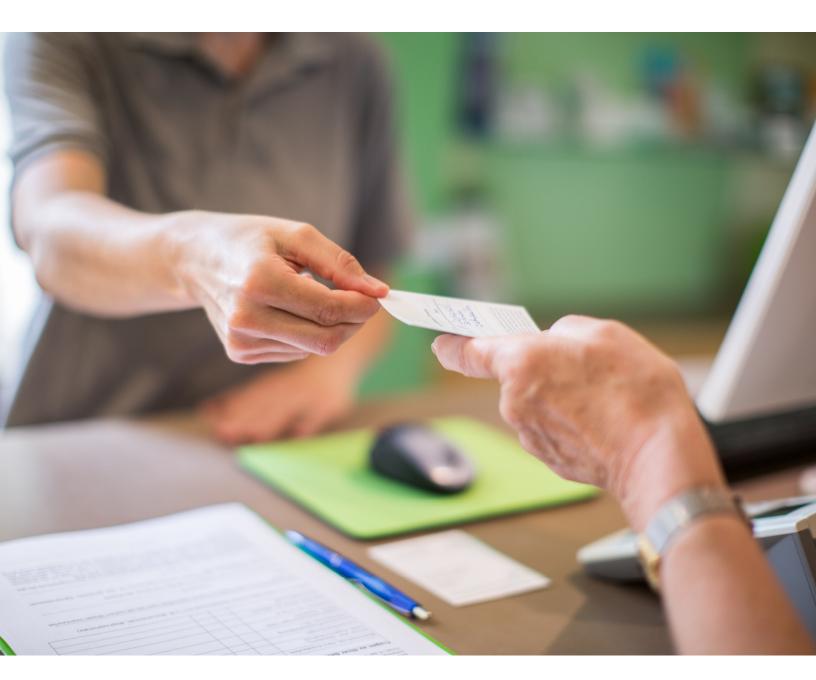
### Top technology interventions in focus:

- Strengthening cybersecurity: Ensuring data/application/endpoint/network/perimeter security, identity and access management, personal data protection and due diligence for regulatory compliance
- Big data analytics platform to capture structured and unstructured data from regular and unorthodox sources and applying advance ML techniques to offer the right product at the right price, detect fraud and perform real-time portfolio analysis for taking preventive measures



## Conclusion

The insurance industry's success in the future will depend on its ability to develop a well-rounded operating model for technology adoption and strike the right balance between business priorities, a holistic risk model for technology and ecosystem collaboration, and delivering simple yet relevant experiences at scale. Additionally, focusing on skilling the digital workforce and becoming more agile will give organisations a competitive edge. As the industry increases its emphasis on creating more innovative and standardised products in order to drive awareness and interest, the technology backbone to support digital sales, servicing and claims will have to become simpler, API-driven and modular. In this age of digital awareness and instant gratification, insurance companies will see exponential growth in the digital native segment. Hence, technology leaders will have a larger role to play in maintaining and transforming brand awareness and perception with the help of real-time insights. We see a future, not far from now, where one of the most regulated industries will become completely consumer driven and experience led.



## **About ASSOCHAM**

ASSOCHAM initiated its endevour of value creation for Indian industry in 1920. Having in its fold more than 400 chambers and trade associations and serving more than 4,50,000 members from all over India, it has witnessed upswings as well as upheavals of Indian economy and contributed significantly by playing a catalytic role in shaping up the trade, commerce and industrial environment of the country.

Today, ASSOCHAM has emerged as the fountainhead of knowledge for the Indian industry, which is all set to redefine the dynamics of growth and development in the technology-driven cyber age of 'knowledge-based economy'. ASSOCHAM is seen as a forceful, proactive, forward-looking institution equipping itself to meet the aspirations of corporate India in the new world of business. ASSOCHAM is working towards creating conducive environment of India business to compete globally.

ASSOCHAM drives its strength from its promoter chambers and other industry/regional chambers/associations spread all over the country.

### **Vision**

Empower Indian enterprises by inculcating knowledge that will be the catalyst of growth in the barrier-less technology-driven global market and help them upscale, align and emerge as formidable players in their respective business segments.

#### **Mission**

As a representative organ of corporate India, ASSOCHAM articulates the genuine, legitimate needs and interests of its members. We believe education, health, IT, BT, CSR and environment to be the critical success factors.

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