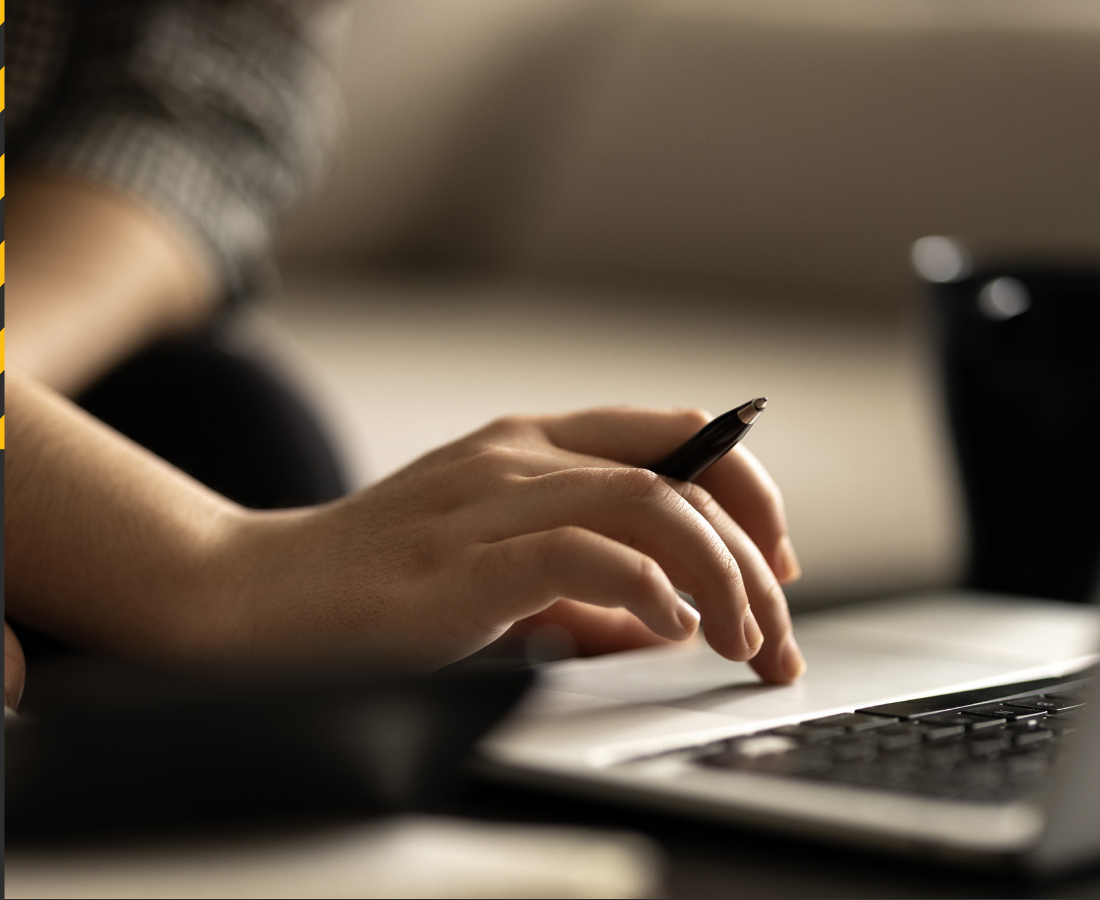

Insuring the future: Addressing emerging risks in the Indian insurance sector

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Insurance has always been regarded as the routine protection asset that one acquires to ensure a safer future. However, in the last two decades, especially after the COVID-19 pandemic, insurance has transcended beyond its traditional silos and integrated with technology, introducing a new era of insurance 2.0.

Emerging as a pivotal cornerstone of the nation's economy, the Indian insurance industry continuously navigates the vast and complex landscape of a digitally driven financial ecosystem. Due to heightened consumer awareness, increasing incomes, evolving regulatory support and a rapidly growing sense of investing in financial security, the insurance industry is on a steep upward trajectory.

Overview: Indian insurance sector – growth and penetration

Currently ranking as the 10th-largest insurance market in the world, the Indian insurance market is expected to grow rapidly to become the 6th largest insurance market globally in the next decade, as estimated by the Insurance Regulatory and Development Authority of India (IRDAI).[1] In the upcoming five-year period from 2024 to 2028, the industry anticipates a robust 7.1% real term increase in total insurance premiums. This growth surpasses the global average of 2.4%, as well as the averages for emerging and advanced markets, which stand at 5.1% and 1.7% respectively. At this pace, India is poised to lead as the fastest-growing insurance sector among G20 nations.[2]

But as the sector moves ahead in terms of growth, environmental disruptors follow as well – sometimes at a pace faster than the sector's progression. Geographically, India is prone to natural calamities ranging from cyclones to earthquakes, floods and droughts. About 93% of such exposures in India remain uninsured at present. This clearly indicates the low volume of insurance penetration within the country. This challenge arises due to the low awareness and limited understanding of risks by the uninsured population. While the penetration figure (in percentage of gross domestic product [GDP]) stood at 3.8% in 2023, with the continuous support and strong influence of IRDAI efforts, it is estimated to rise to 4.5% by 2034.[3] The IRDAI is set to broaden insurance penetration in the country by leveraging major policies such as Bima Sugam, Bima Vahak and Bima Vistaar.

While India does have a low insurance penetration index, it is faring better than most global markets. Emerging markets in Asia indicated a 2.9% of insurance penetration in 2023, with the exception of China (which exhibited a 4.065%[4] penetration statistic for their insurance markets in 2023). In 2023, the global insurance penetration stood at 6.5%.[5]

The IRDAI has been constantly keeping up the pace of the insurance industry's transformation by bringing forth several regulatory guidelines and initiatives – a major one being the 'Insurance for All' by 2047.[6] The regulatory body seeks to insure each and every Indian citizen and enterprise in the next 13 years, while attracting the attention of global players to the Indian insurance sector.

1. https://www.ibef.org/industry/insurance-sector-india
2. https://economictimes.indiatimes.com/industry/banking/finance/insure/india-poised-to-have-the-fastest-growing-insurance-sector-among-g20-nations/articleshow/106915547.cms?from=mdr
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With progress, comes its challenges

While the industry is on a constant growth curve, it also faces a constant onslaught of geopolitical tensions, high inflation rates, tightened financial environment (repo rate unchanged at 6.5% for seven times since March 2023), and looming novel risks stemming from the integration and adoption of advanced technologies. Emerging risks within this sector are sophisticated and evolving constantly, making them difficult to quantify. Due to their uncertain and unprecedented nature, the sector is under constant pressure to establish robust risk mechanisms that will help tackle such threat vectors.

If these risks are not taken into consideration and mitigated on time, they can lead to increased claims and losses, systemic failures in underwriting practices, and downward shifts in demand for insurance products. Considering everything from the increasing number of cyber threats in the digital age, the complex ramifications of health crises, to evolving regulatory compliances and disruptive environmental adversities, the current situation demands a new level of preparedness and vision from the Indian insurance landscape.

Emerging risks: Technological shifts in the Indian insurance sector

The insurance industry is continuously undergoing major technological transformations, driven by the predominant rise of big data, artificial intelligence (AI), machine learning (ML) and internet of things (IoT). These technologies are enabling insurers to collect and analyse vast amounts of sensitive customer data in a fraction of the time it would take earlier. It has led to building newer methodologies around underwriting risks, pricing policies and managing claims.

But each new technological shift within the industry brings forth a new set of unprecedented risks. It is thus becoming increasingly complex for insurance firms and concerned regulatory bodies to combat such sophisticated malicious vectors. While technology has become a significant catalyst in the sector's progression, the risks associated with these advancements cannot be overlooked.

Let us take a look at the insurance technological platforms and solutions that are responsible for emerging threat actors within the sector.

Key challenges

Digital know your customer (KYC) and onboarding

- Identity theft
- Data forgery
- Data leaks

Automated underwriting

- Algorithmic biases
- Lack of transparency
- Over-reliance on automation

Claim settlement ML algorithms

- Decision-making transparency
- Inaccurate predictions
- Bias in algorithm training data

Robo-advisors

- Misleading advice
- Regulatory issues

Identifying emerging risks: Recognising the macro trends affecting the insurance sector

Emerging risks fall under the category of 'anticipated risks'. Such risks often go unnoticed until it's generally too late and they've had large-scale adverse impacts on markets and businesses. Since the nature of emerging risks cannot be quantified, they have to be anticipated by studying historical risks emerging from developing trends.

1 Digital platforms

- Cybersecurity risks
- Data breaches

2 AI chatbots

- Data privacy issues
- Lack of human oversight

3 Mobile applications

- Hacking vulnerabilities
- Insecure data storage

4 Telematics and IoT

- Data integrity concerns
- Privacy invasion

5 Online claims processing

- Fraudulent claims
- Data manipulation
- System exploitation

While unprecedented events cannot be forecasted, businesses – and in this case, insurance houses, their third-party collaborators, reinsurers, and miscellaneous operating vendors – can still be prepared for such challenges by effectively managing risks after analysing underlying risk factors.

In the realm of risk management, staying attuned to macro trends is a fundamental practice that holds particular significance when addressing emerging risks as they provide a panoramic view of the larger forces at play.

9. https://www.livemint.com/economy/india-singapore-defy-declining-global-wealth-trend-why-11693808950841.html
10. https://www.rbi.org.in/Scripts/QuarterlyPublications.aspx?head=Household+Financial+Savings
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1. Environmental dangers and climate change:

The growing frequency and intensity of extreme weather events, such as hurricanes, floods, earthquakes and wildfires, put financial burden on insurance houses, leading to larger economic challenges.

2. Modern technological developments:

The rapid development of technology, including mobile applications, AI/ML platform automation and digital KYC, requires new risk assessments and coverage models, considering possible responsibility shifts from traditional insurance firms to third-party insurance brokers and technology providers.

3. Geopolitical instabilities:

Political unrest, trade tensions and geopolitical conflicts can lead to economic volatility and may cause insurers to face heightened risks related to property damage, business interruptions and supply chain disruptions.

4. Social shifts:

Social shifts that affect insurance companies extensively include urbanisation and demographics. Rapid urbanisation increases the magnitude and severity of claims involving infrastructural losses and overpopulation. Changes in demographics, such as increasing aging population and permanent migrations, drastically influence the demand patterns for property, life and health insurance, while bolstering the need for novel insurance products and strategies for risk management.

5. Economic uncertainties:

Solvency and investment returns of insurers are greatly impacted by fluctuations in interest rates, unpredictable investment market and global economic volatility.

6. Regulatory compliance and data privacy:

Following data protection laws such as the newly introduced Digital Personal Data Protection Act 2023 (DPDP) in India is essential to safeguard customer data and avoid heavy fines. Non-compliance to data privacy laws will lead to severe distrust amongst policyholders, while resulting in serious reputational damage and loss of potential customers.

7. Data security breach:

Data security breaches, due to cyberattacks and illegal access to private data, pose serious dangers to insurers and policyholders. If such breaches result in compromising personal and financial information, identity theft and fraud, there can be serious financial losses for both insurers and policyholders.

8. Insider threats:

Insider threats, which consist of employees' or outside contractors' purposeful or inadvertent abuse of information, represent intra-organisational dangers to insurers' data security. Threat actors may gain access to sensitive private data by way of illegal access, data theft or due to careless data management.

9. Data integrity:

Assurance of data quality and integrity is an essential need for insurers to carry out well-informed business decisions and provide accurate risk assessments. Inconsistent, inaccurate or out-of-date data can lead to misunderstandings, arguments over claims and financial losses.

10. Biases in data:

AI and data analytics integrated into the insurance decision-making process carry the possibility of prejudice and discrimination. Age, gender or socioeconomic status are some of the few factors due to which policyholders may be treated unfairly because of erroneous data models or biased algorithms.

Market conduct risk

Another aspect of emerging risks is the market conduct risk. Insurance as a concept deals with two very important and sensitive human characteristics – health and death. Hence, it becomes imperative for insurance firms to strictly adhere to ethical practices while marketing their products.

The emergence of bancassurance models – banks offering insurance products to their clients – is a noteworthy trend in the insurance sector. A bank and an insurance business form a relationship known as bancassurance in which the bank offers the insurance firm's products to its own clientele. This way, the insurance firm can reach a wider audience by capitalising on the bank's vast customer base and distribution network.

In any economy, older populations are heavily impacted by this model, as their risk management requirements are often complex. Therefore, there's a growing concern regarding banking investments being sold as insurance products with highly attractive benefits despite their inadequate coverage. This ultimately raises significant reputational risk for insurance firms and their distributors, since it misleads consumers.

Furthermore, banks are not the only distribution channels where conduct risks are noticeably greater. There are several regulated and unregulated insurance distribution channels, including:

- **Tied-agency channels:** Tied agents, working for a single insurer, have to strike a balance between advancing the interests of their clients and completing targeted sales goals. Mis-selling and putting business objectives ahead of consumer demands is a recurring risk with tied agencies.

- **Insurance broking:** Consumers are frequently offered biased insurance investment advice and products to complete target sales. The risks stem from conflicts of interest, insufficient commissions and inaccurate fee disclosures.

- **Direct insurance sales:** Sales through telesales and e-commerce tend to be more efficient, but there are risks associated with transparency and client understanding of product conditions. As a result, there are numerous consumers who become susceptible to the mis-selling of insurance products.

- **Call centres and digital channels:** Call centre and digital insurance executives must provide accurate insurance information and clear communication on products and their underlying policies. Risks encompass violations of data privacy, deceptive selling and inadequate outlining of policy specifics. Strict controls are required for direct marketing via phone, email or SMS to avoid incorrect sales made by deceiving consumers, while being compliant with regulations governing consumer consent and data privacy.

- **Microfinance:** To serve low-income populations, microfinance institutions must make sure that insurance products are both reasonably priced and tailored to the individual needs of their clients. To stop consumer exploitation, it is important to educate them about insurance products/services.

- **Technological distribution:** Insurance sales via online platforms and mobile apps increase efficiency but also raise issues of data protection, cybersecurity and unclear communication regarding policy details. Protecting customer information and maintaining privacy are top priorities across all channels – particularly considering the growing usage of digital tools and platforms.

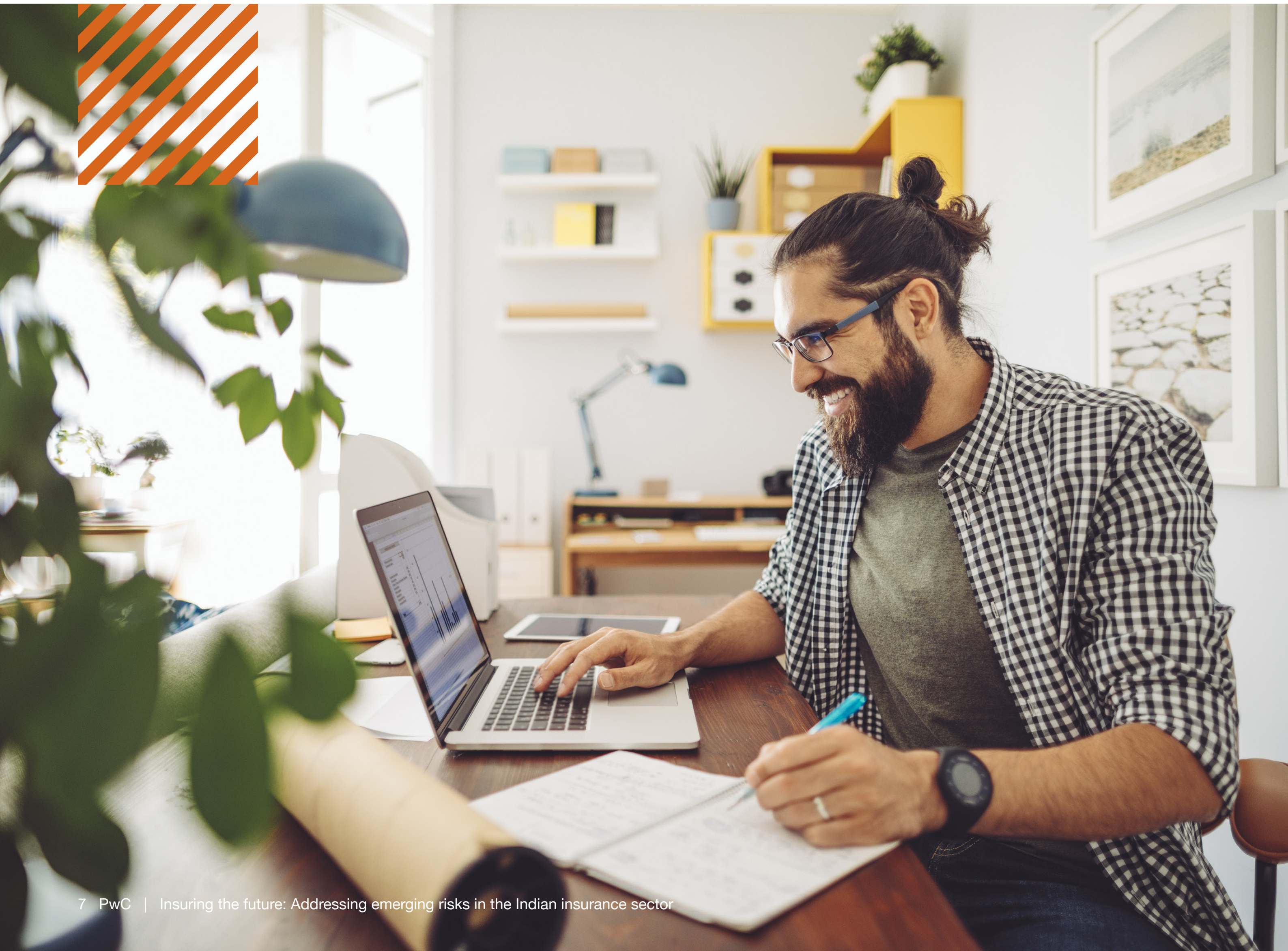
Ensuring transparency, following ethical sales policies, and putting strict processes in place for sales are therefore essential for countering market conduct risks. IRDAI too recognises the necessity of mitigating market conduct risks, and on 19 June 2024, it instructed life insurance companies to not promote unit-linked plans (ULIPS) as investment products.

In addition to raising consumer awareness and propagating insurance coverage within the economy, the IRDAI's strategic efforts have also pushed the sector to provide the best possible insurance products and plans. These recommendations emphasise the need for transparency while marketing insurance products to protect consumer interests by curbing the problem of mis-selling.

One such move by the IRDAI to protect the interest of buyers of insurance policies has been to increase the free-look period from 15 days to 30 days. This will be applicable on both new life and individual health insurance policies from 1 April 2024, and will enable consumers to re-evaluate the policies they have acquired.

While the IRDAI and insurance firms are making continuous concerted efforts to manage and reduce market conduct risks, due to the sensitive nature of insurance investments for consumers and limited awareness, there still remain a great number of associated risks in the sector. This highlights the difficulties in sustaining moral behaviour throughout the distribution chain.

Therefore, the sector can ensure its long-term sustainability and encourage consumer confidence by prioritising transparency and responsibility.



Emerging risks within insurance subsectors

Third-party insurance brokers

With access to large volumes of sensitive customer data, both online and offline third-party insurance brokers may create serious challenges regarding data security in India. Third parties utilise the data to offer personalised services, streamline insurance procedures and enhance client experiences. To reach their insurance sales targets, however, many independent brokers and brokerage companies either purposefully or inadvertently misuse data. This negatively affects consumers whose information is being accessed without permission.

Emerging risks associated with third-party insurance brokers:

I. Data misappropriation:

Third-party online or offline broking companies might purposefully or inadvertently share consumer data with other third-party companies to widen their marketing demographics, resulting in significant misuse of data and privacy breaches.

II. Lack of transparency:

Many third-party intermediaries neglect to reveal how their operating systems access, utilise and safeguard client data. Such non-disclosures might be attributed to ineffective fraud detection software and dated firewall solutions implemented by third parties. Such lack of transparency heightens customers' vulnerabilities and causes distrust among them regarding third-party insurance brokers.

III. Advertisement/marketing biases:

Third-party intermediaries may use consumer data to create promotional marketing collaterals or adverts based on customer preferences, generating biases that align primarily with the firm's objectives, without consent or authorisation from the consumers. This leads to inaccurate decisions and exploitation of consumers in selecting insurance products.

IV. Inadequate security mechanisms:

Several third-party broking firms do not prioritise adopting robust cybersecurity defensive systems, or investing in security training initiatives, and further lack organisational risk culture. As a result, client data remains vulnerable to thread actors.

V. Regulatory non-compliances:

The IRDAI has put forward several third-party governance and regulations for insurance brokers to strictly follow on data privacy and security, both legally and technically. Non-compliance can result in major legal consequences and heavy fines, while regulatory violations may seriously damage reputations of both the third-party firms and insurance houses that are in a contract with the former.

Reinsurance

Since insurance is vastly data-driven and the sector is becoming increasingly interconnected, reinsurance firms recognise the crucial need to tackle emerging data risk issues. Reinsurance is a form of insurance wherein insurers pool their risks with one another, and generate and share significant amount of sensitive and valuable data. As the reinsurance sector becomes increasingly reliant on the distributed data, several data-related risks that need immediate attention have surfaced.

Although the fundamental denominator of cybersecurity vulnerabilities and data breaches such as regulatory non-compliances, outdated security software and transparency issues stay the same for every sector, the following concerns are specific to this particular segment:

I Concentration risk:

When an insurer is heavily dependent on one reinsurance partner, a concentration risk arises wherein if the reinsurer business is adversely affected, it might influence the whole insurance portfolio negatively.

II Counterparty risk:

It is important for reinsurance partners to protect and maintain their financial stability. Filing for bankruptcy or insolvency of a reinsurer may acutely disrupt an insurer's capacity to adequately cover claims.

III Complexity in settling claims:

Reinsurance firms have several tiers of claims settlement processes which are not always streamlined and often complex. This can cause significant delays or conflicts during reinsurance settlements and may affect the liquidity and capacity of an insurer to fulfil policyholder obligations.

IV Third-party risks:

Reinsurance firms are exposed to third-party risks by collaborating with numerous brokers, insurers and other third parties. Insufficiencies in due diligence and ineffective monitoring or supervision might lead to potential data breaches, contractual breaches and illegal data usage.

V Data accuracy and quality:

Inaccurate or erroneous data can lead to miscalculated risk evaluations, triggering heavy-set financial losses. Reinsurance companies must maintain a certain standard for data quality to ensure the accuracy of their decision-making risk assessments.

VI Algorithmic and model risks:

Several reinsurance firms heavily rely on algorithms and models for generating their risk assessments and pricing strategies. These models must produce sophisticated and up-to-date data valuations to manage forecasted risks. However, most reinsurers do not adopt advanced models and the resulting algorithms become prone to historical data biases and errors, leading to incorrect underwriting decisions, which could cause substantial financial losses to reinsurers and insurers.

VII Operational disruptions:

Data-related issues stemming from operating system failures and/or data breaches can cause detrimental operational interruptions for reinsurers, resulting in financial losses and reputational harm.

InsurTech

Due to the rapid growth of FinTechs in India, the insurTech sector has also received an accelerated push. With digitisation becoming a fundamental game-changer for businesses and consumers alike, insurance firms too have transformed their operations to integrate with innovative advanced technologies. For Indian insurTech companies, enhancing their underwriting processes is one of the most critical areas of focus. Furthermore, they employ advanced AI/ML algorithms to accurately reassess risk decisions and premium pricing.

With the advent of insurTech and its streamlined, digitised insurance processes, there has been a sudden increase in the demand for insurance policies. The nascent industry's impact on the Indian insurance industry as a whole is characterised by advantages as well as drawbacks. Although insurTechs have the ability to provide enhanced operational efficiency, increased market penetration and tailored solutions to a broad spectrum of customers, the risks posed by the sector are equally varied. Thus, there is a need for careful assessment by insurers, stakeholders and regulators.

The following emerging risks fundamentally influence the Indian insurTech sector:

I. Data privacy and compliance:

InsurTechs collect, store and utilise customer data through various distribution channels such as insurance houses, third-parties, independent brokers and reinsurers. This raises concerns surrounding data privacy and compliance with the evolving data protection regulations. Misuse of customer data without consent can easily occur to drive insurTech business objectives, leading to mis-selling and loss of sensitive customer data.

II. Algorithmic bias and fairness:

InsurTechs heavily depend on utilising algorithms for risk assessment and pricing, which may unintentionally generate biases, influencing incorrect policy recommendations that are unfair or discriminating.

III. Underwriting inaccuracy:

Using AI/ML and analytics in underwriting introduces the possibility of erroneous and biased risk assessment or pricing, therefore exposing financial losses for consumers as well as insurers.

IV. Fraud detection and prevention:

Although analytics and AI may be useful in identifying frauds, complex fraudulent vectors are rapidly evolving beyond the pace of the implemented analytics and AI tools within the insurance operations, rendering the technology outdated. Such fraudulent elements may exploit the current technological weaknesses, making it difficult to lower the risk of fraud.

Recommendations to counter emerging risks within the insurance sector

A. Understanding risks emerging from macro trends

i. Examine current macro patterns in depth by performing a **comprehensive analysis**.

ii. Create **multiple scenario planners** depending on various possible outcomes.

iii. **Analyse the potential impact** of macro developments affecting your organisation or sector.

iv. Determine organisational resilience through comprehensive stress tests.

v. **Identify key drivers** of emerging macro risks such as changes in consumer demand, supply chains interruptions or regulatory changes.

vi. Based on their likelihood of occurrence and potential impact, **assess and prioritise risks.**

vii. Develop **contingency strategies** based on computed risk analyses.

viii. Implement a mechanism for **continuous macro trends monitoring**.

Ultimately, a practical approach to risk management is to thoroughly understand and identify macro patterns within newly emerging risks. These recommendations will allow insurance firms to be better prepared in the event of uncertainties and strengthen their resilience, flexibility and forward-thinking policies.

B. Managing sector-specific risks in insurance

Insurance firms:

i. Maintain profitability and sustainability by adopting prudent underwriting policies.

ii. Ensure adherence to regulatory policies concerning insurance products, sales strategies and protection of consumer interests.

iii. To maximise profits and minimise investment risks, create strategic investing techniques and frameworks.

iv. Maintain a pipeline of innovative and diverse product solutions to help meet the ever-evolving demands of consumers and the market.Conduct thorough risk evaluations and pricing analysis to prevent adverse selection and under-pricing risks.

Reinsurers:

i. Evaluate insurance portfolios and diversification strategies comprehensively to mitigate risks.

ii. Carefully review reinsurance contracts to assess potential risk transfers.

iii. Establish robust capital management mechanisms to support underwriting operations and minimise unanticipated losses.

iv. Create sophisticated models to assess and manage environmental risks.

v. Implement an all-encompassing integrated approach/framework to enterprise risk management (ERM) that will incorporate operational, strategic and investment risks.

Third-party insurance brokers:

i. While selecting insurance houses for collaborations, conduct rigorous due diligence and carefully evaluate their financial stability, claims handling capacity and underwriting capabilities.

ii. Implement stringent up-to-date cybersecurity policies to protect sensitive client data from illegal access or data security breaches.

iii. Ensure adherence to regulatory compliances including policies based on licensing, disclosures and fiduciary obligations.

InsurTech firms:

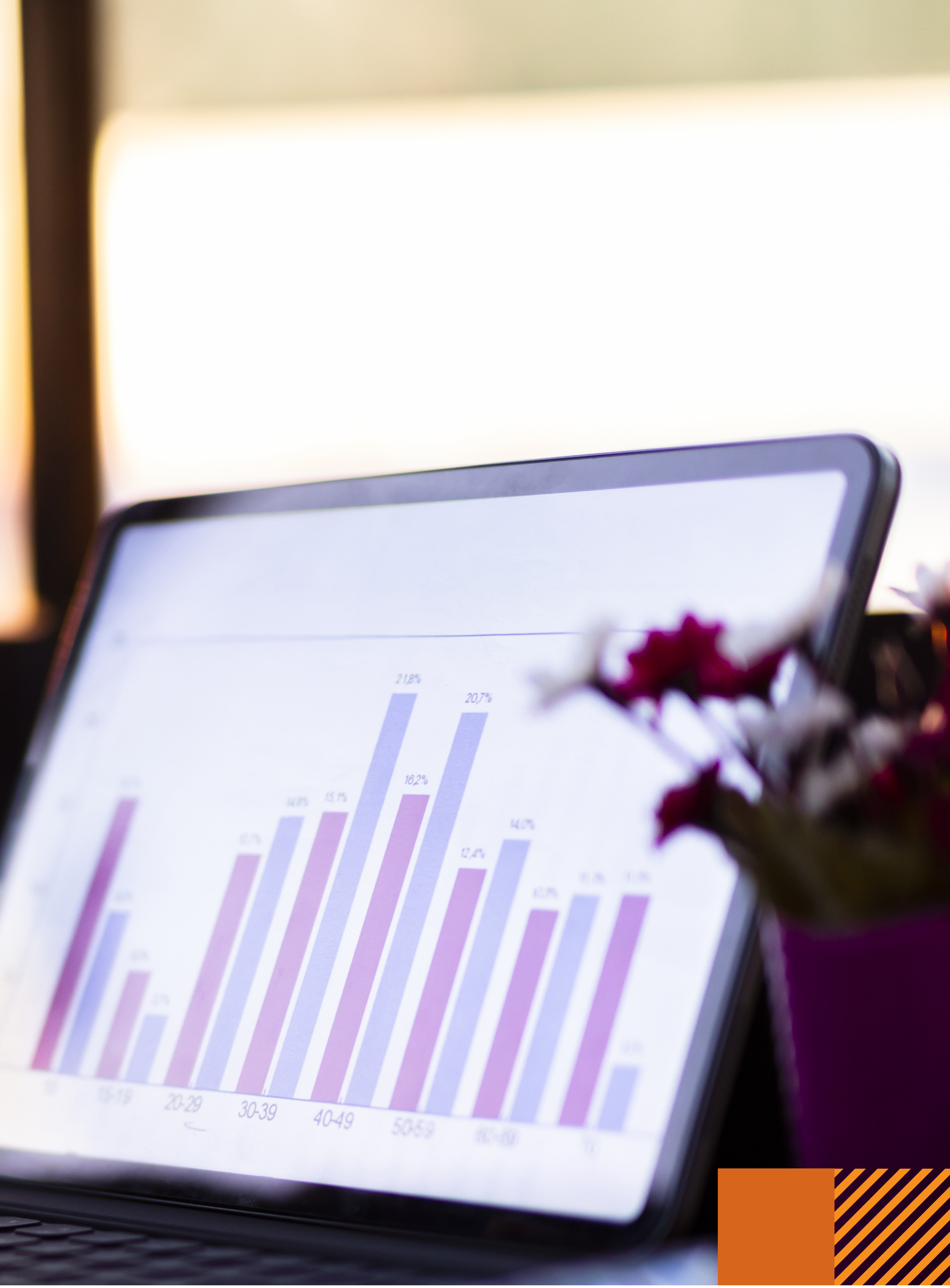
i. Develop and implement a resilient technological risk management system and conduct regular audits.

ii. Ensure mandatory adherence to stipulated data privacy regulations by delineating corrective data protection policies and acquire necessary user consent.

iii. Broaden expertise and stay updated on the governing regulations on data privacy, consumer protection and licensing that are applicable to the insurance industry.

iv. Continuously develop innovative insurance products and services by conducting comprehensive market research and user testing.

v. Thoroughly evaluate future collaborations and partnerships between reinsurers, insurers and other potential stakeholders.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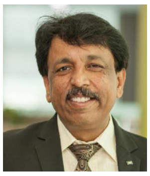

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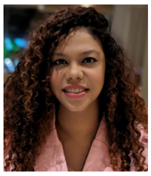

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