NATIONAL INSURANCE ACADEMY

A Comprehensive Report on

Enhancing Insurance Inclusivity and Bridging the Protection Gap in India

By National Insurance Academy

14th Dec 2023

Foreword

It is with great pleasure that I present this insightful report on the Insurance Protection Gap in India, a collaborative effort that underscores the commitment of the National Insurance Academy (NIA) to advancing the knowledge landscape within the Indian insurance sector.

The study of the Insurance Protection Gap in India is crucial for the academy as it directly aligns with it's mission of contributing to the development of the insurance sector. This study enhances the educational experience for students and professionals associated with NIA, providing real-world insights and fostering a more comprehensive understanding of the challenges and opportunities within the insurance landscape.

Furthermore, the findings serve as strategic insights for various stakeholders, including policymakers, industry professionals, and academics, contributing to the overall growth and resilience of the sector. In the context of the Indian insurance regulator's vision of achieving universal coverage by 2047, NIA's exploration of the protection gap becomes particularly significant, supporting national objectives by informing policies and initiatives. Undertaking studies of this nature also underscores NIA's commitment to research excellence, showcasing its dedication to producing cutting-edge, research-based knowledge for the benefit of the institution and the broader academic and professional communities.

I extend my sincere appreciation to the dedicated team behind this study, whose unwavering efforts have culminated in a comprehensive exploration of the insurance protection landscape in India. I also want to acknowledge the invaluable contributions of experts from industry, government, and academia who have enriched this work with their insights.

I encourage all stakeholders to actively engage with the contents of this report. It is my hope that the insights presented here serve as a catalyst for informed decision-making, ultimately fostering the growth and resilience of the Indian insurance sector.

Dr Tarun Agarwal

Director - National Insurance Academy

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Executive Summary

The acceleration of climate change has been exacerbating economic losses, significantly impacting not only property damage but also causing humanitarian crises. It displaces people, destroys livelihoods, and sets back development, exacerbating the fight against poverty for millions globally. The changing risk landscape, compounded by climate risk, cyber risk exposures, mortality, and morbidity risks, has increased the insurance protection gap in India. Particularly, the natural catastrophic risk protection gap has exceeded 90%. Similarly, the mortality, annuity, and health protection gap are also higher compared to developed markets.

The insurance industry plays a pivotal role in building socio-economic resilience and enabling economic development and entrepreneurial initiatives to achieve climate change goals and targets. It is also a significant contributor to building financial resilience to extreme events and other physical risks by adequately protecting them through appropriate insurance and reinsurance solutions. Therefore, the industry needs to understand the causes of this protection gap and develop appropriate insurance business strategies to reach the unreached. This can be achieved through innovative risk and mitigation solutions to bridge the protection gap and expand the business beyond traditional boundaries. Addressing the protection gap requires collaboration between the government, the insurance industry, and other stakeholders to create affordable and comprehensive insurance solutions that can protect individuals and communities from the diverse risks they face.

Realizing the importance of the subject, the above study was undertaken with the primary objectives of measuring the insurance protection gap in the key business areas: life and annuity, health, property, cyber, and crop insurance. Secondly, understanding the major reasons for the increasing protection gap and suggest measures for closing the protection gap. For this purpose, we conducted a pan-India survey among the insured and uninsured customers across different cities, including metro cities, urban areas from Tier I to II, and Tier IV-VI from rural areas. In total, we collected a sample of 4755 respondents, consisting of individuals and corporate customers. The executive summary of our study presents the key findings and suggestions for all important lines of the insurance business below.

Life Insurance

A substantial protection gap of 87% presents a significant business opportunity for life insurers in India, potentially reaching a premium volume of US$106.8 billion by 2030 (Swiss Re, 2021). To capitalize on this opportunity, insurers must dissect the protection gap across age groups, income levels, and occupations. Our report suggests targeting high-potential demographic segments with tailored marketing strategies.

Analyzing the mortality protection gap (MPG) across age groups reveals that the primary life insurance segment, the 26-35 age group, exhibits a protection gap exceeding 90%. Despite lower awareness in this segment, insurers can appeal to their desire to build assets and savings for the future by bundling savings products with risk protection covers. Tech-savvy and responsive to online channels, this segment, can effectively be reached through digital platforms, although some may seek guidance from agents or wealth managers.

The 36-45 age group, comprising middle-aged customers, also demonstrates a significant protection gap, with 59% exceeding 90%. Targeting this segment with comprehensive risk protection (term insurance), including riders for critical illness and enhanced coverage, presents a viable strategy. Additionally, annuity products can cater to their focus on building financial investments for family care in the event of premature death.

Upper middle-aged customers (above 45 years) exhibit better awareness levels but still have higher mortality protection gaps. With higher annual incomes and advanced education, this segment is poised for insurance products with added benefits.

Male policyholders, especially those in the lower-income category, show a substantial protection gap of over 90%. Addressing this low-income segment through micro-insurance and social security schemes like PMJJBY and Jan Dhan Yojana can bridge the gap. Female customers, with a notable protection gap, can be attracted through family protection cover bundled with savings products.

Middle-income households, earning between Rs. 5 lakhs to 10 lakhs, display a protection gap of over 90% for 70-80% of respondents. Targeting this segment with savings and investment products, coupled with term insurance, offers a potential avenue. Higher-income groups (annual income of 11 lakhs to 20 lakhs) with higher education levels and better awareness can be enticed with high-value term insurance bundled with annuity and wellness insurance plans.

Individuals engaged in their own business or other occupations, representing 78% of the respondents, exhibit a significant protection gap of over 90%. This segment, crucial for insurance potential, requires education on protection adequacy and focused marketing campaigns to boost insurance penetration. Micro-insurance and social security schemes are recommended for coverage.

Employees in the government and private sectors display better awareness levels, while those in the unorganized sector and business owners have lower awareness. Customizing policies under group insurance schemes can cater to these segments, ensuring affordability and coverage.

Better awareness is observed in metro and A-class cities, as well as in the southern and western regions. Customized bundled covers with added health and annuity options can be targeted at these regions.

Despite perceiving life insurance primarily as an investment product, 67% of customers still prefer savings for the future, tax benefits, and safety. Many do not opt for mortality protection coverage, leading to a high protection gap.

While most policyholders believe their coverage is adequate, perceptions vary across demographic segments. Younger and middle-aged customers wrongly perceive adequacy, emphasizing the need for education on risk protection. Private and government sector employees generally believe their coverage is sufficient, potentially due to employee benefit schemes.

Customers with higher educational qualifications and higher incomes wrongly perceive their coverage as adequate, suggesting the need for education on risk protection. Middle-income segments with HSC pass or graduate qualifications present an opportunity for further insurance coverage with simplified products.

Private sector employees, with higher incomes and education, represent high insurance potential. However, those in the unorganized sector perceive lower risk protection coverage, indicating the need for customized policies and lower premium rates.

The majority of policyholders (75%) feel the need to enhance their coverage further. Rising inflation, global financial market crises, pandemics, and climate-related risks contribute to the growing need for increased coverage.

Pension and Annuity

The Annuity and Pension Protection Gap currently stands at 93%, with a marginal difference between urban (91%) and rural areas (96%). This high protection gap emphasizes the need for increased coverage in both cities and rural regions. The penetration of pensions remains low, with only 24% covered under employee retirement schemes. PFRDA statistics indicate that approximately 14% of the unorganized sector workforce is covered under NPS Lite and Atal Pension Yojana.

The majority (73%) of insured individuals are part of formal employee retirement schemes in organized sectors. Of these, 32% are covered under Central and State Government schemes, 48% by Employee Provident Funds, 15% by NPS, and 5% through life insurance company annuities.

The protection gap is notably high (95%) among the young and millennial segment (26-35 years) in urban areas and similarly high (97%) in rural areas. A significant 88% of them do not plan for their retirement.

The upper middle age group (46 to 55 years) also faces a high protection gap of 85% in urban areas and 88% in rural areas. It is crucial for them to have a substantial corpus for an immediate annuity plan, and suggestions from insurance companies or secured debt fund NPS.

Income-wise, individuals with an annual income of Rs.5 lakhs to Rs.10 lakhs and above Rs.10 lakhs have slightly lower protection gaps of 89% and 84%, respectively, while lower-income customers with less than Rs.5 lakhs face a high protection gap of 96%.

Pension penetration is relatively low (14%) among low-income individuals and 25% among lower-middle-income segments. Recommendations include advising low-income individuals to opt for the Atal Pension Scheme and PM-SYM, while higher-income earners could consider buying Annuity products from life insurers.

Although the male protection gap (92%) is slightly lower than the female (93%), both face high pension protection gaps. Only 15% of female employees are covered under employee pension schemes.

Around 75% of respondents perceive their pension coverage as inadequate due to increasing living expenses, inflation, and market volatility. A significant segment (36%) from the age group of 45 to 55 also feels their coverage is insufficient.

A considerable segment (36%) of middle-aged individuals from the age group of 45 years to 55 feel that their pension coverage is insufficient. They want a higher monthly annuity payout, and most are from the organized sector. Employers/government are advised to enhance pension coverage for this segment.

Respondents from the middle-income segment perceive an average payout as reasonable, indicating a lack of clarity among millennials (26 to 35 years) and people aged above 60 years regarding their pension payout needs.

Low-income individuals believe their pension adequacy is relatively low and perceive their pension coverage as inadequate. The majority of respondents (more than 70%) have no retirement plans, and around 35% prefer to invest in financial products rather than pension funds.

Lack of awareness and knowledge about pension products, income constraints, and family liabilities hinder retirement planning. Comprehensive awareness campaigns involving regulators (PFRDA, IRDAI, and SEBI) and insurers are crucial.

While the majority express the intent to invest in pension or annuity

products soon, there is a need to raise awareness about building a sufficient retirement corpus. Different demographic segments require customized pension products based on changing investment needs, preferred retirement age, and medical requirements.

Long-term care insurance with critical care and disability benefits should be designed alongside pension cover to address old-age morbidity risks.

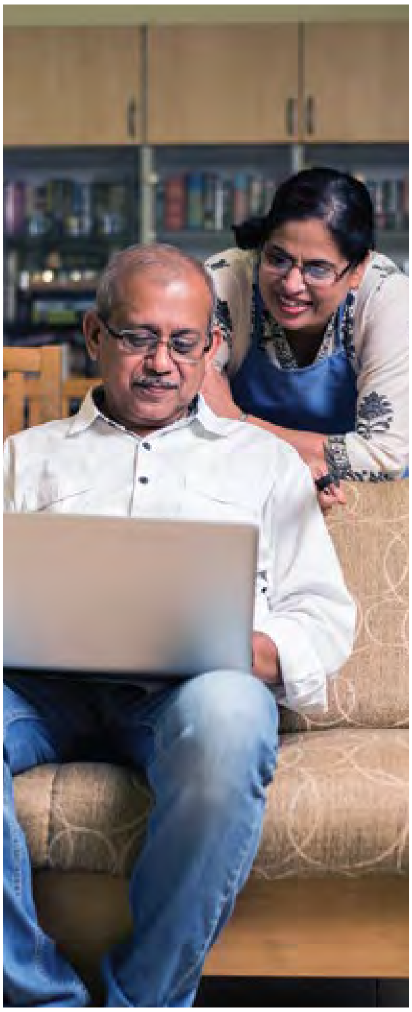
Life insurance companies should have an exclusive vertical dedicated to pension and annuity products. The Pension Fund Regulatory and Development Authority (PFRDA) should encourage standalone Pension and annuity companies to start their pension business.

Attractive commission rates for pension and annuity products, especially deferred annuity products, are essential to encourage agents and intermediaries. Professional training and technical support should be offered to intermediaries and bancassurance partners to develop their knowledge about these products.

Integrating pension and annuity products into the proposed Bima Vahak woman-centric distribution channel could promote increased coverage. This could be bundled with Bima Vistaar, a comprehensive life, health, and property insurance.

The government could offer suitable tax benefits to attract young customers to invest in pension and annuity products. There should be a strengthened effort to enhance the social security schemes of PM Shram Yogi Maan Dhan and Atal Pension Yojana, utilizing banks and financial institutions to increase enrollment via the Jan Dhan platform.

The government can enhance employers' contribution to retirement benefits and also provide tax incentives, which would enhance



Health Insurance

High Health Protection Gap: The health protection gap stands at 73%, significantly high despite increased insurance awareness. Over 40 crore individuals, constituting 31% of the population, lack health insurance due to lower penetration, coverage inadequacy, and rising healthcare costs.

Reasons for Low Penetration: Factors include a low perceived need for insurance, lack of product understanding, unavailability of customized products, high rates, and limited accessibility to customers.

Savings Linked Long Term: Savings Linked Long-term health insurance for individuals would help improve penetration among young and middle-aged people.

Customized Health Insurance Products: Varied risks across different age groups, genders, and occupations emphasize the need for customizing products meeting specific healthcare requirements, such as wellness-centric covers for the young and family protection for millennials, etc.

Targeting Women with Tailored Products: Low penetration of women policyholders requires specialized health insurance for women, considering their unique health risks and life expectancy.

Encouraging Preventive Health Practices: Offering OPD covers and fitness-related health services can improve customers' health while reducing claims costs.

Developing Mental Health Cover: The rising incidence of mental disorders among young people calls for specialized mental health insurance to address issues like depression and anxiety.

Long-term Critical Illness Cover for the Elderly: As the elderly population is expected to grow, there's a need for long-term critical illness cover for them with extended premium payment options.

Educating Low-Educated Populations: Awareness campaigns targeted at less-educated rural and urban demographics are critical to promoting health insurance.

Micro Health Insurance for Unorganized Sectors: Collaboration between the government, NGOs, and industry groups is essential to create micro health insurance with simplified products for better financial inclusion.

Educating Corporates and Employees: Corporates, especially small to medium-scale industries, should be encouraged to provide health insurance to their employees. Government incentives, tax benefits, and CSR funds can aid this initiative.

GST and Premium Waivers: Waiving GST on premiums for low-income and unorganized sector workers could encourage their health insurance coverage, coupled with discounts for the elderly.

Differential Coverage for Income Segments: Products tailored to income levels should be developed, offering various coverage and healthcare facilities at different premium rates to boost insurance penetration.

Role of Insurers and Brokers: These stakeholders play a crucial role in influencing customer perceptions. They should engage with clients throughout the insurance process, from understanding requirements to claims settlement, improving protection adequacy.

Claims Services Improvement: Enhanced claims services, simplified claims processes, and expedited claim settlements are pivotal for customer satisfaction.

Premium Discounts for Lower Claims: Reward customers with lower claim ratios by offering premium discounts or increased coverage as an alternative to no-claim bonuses.

Offering Cashless Facilities: Providing cashless facilities in all types of hospitals will ensure hassle-free and cost-effective medical treatment for customers.

Property Insurance

The Swiss Re report (2022) highlights India's current 95% NATCAT Protection Gap, expected to increase due to rising climate risk exposures, infrastructure developments, and rural-to-urban migration. Munich Re's report (2021) shows nearly 91% of NatCat losses are triggered by weather-related perils, increasing volatility and reinsurance complexities. Insurers can offer coverage against these disasters and cross-sell/up-sell to existing customers for revenue growth and loyalty improvement.

Key Recommendations:

- Simplify products with lower premiums to attract more customers.
- Collaborate with the government for premium subsidies to low and middle-income customers.
- Implement mandatory NatCat peril covers to enhance coverage in disaster-prone regions.

Targeted Awareness Efforts:

- Focus on lower-income and less-educated segments for better insurance awareness.
- Utilize digital technology and analytics for personalized services and also customize home insurance with nat-cat risk protection.

Coverage Disparities:

- 84% of individuals from low- and middle-income categories lack property insurance.
- 77% of customers from coastal regions, tier-2, and tier-3 cities lack property insurance.

Customized Insurance Demands:

- Over 80% of upper-middle and high-income customers lack a perceived need for property insurance.
- Collaborate with InsureTech companies for value additions like home security, maintenance, and repair services.

Addressing Corporate Needs:

- More than 60% of corporate customers demand Climate Risk Insurance.
- 62% of customers want to protect their cyber risk through cyber insurance.
- Develop top-up covers under standard fire insurance or property insurance.

Climate Risk Insurance Strategies:

- Design region-specific Climate Risk Insurance considering climate change, urbanization, and hazard risk vulnerability.
- Develop single peril customized NatCat peril insurance based on the disaster risk profile of the region.
- Implement parametric-based insurance and embedded insurance solutions for scaling up property insurance in India.

Improving Coverage and Customer Mindset:

- Address reasons for inadequate coverage among corporate customers, including lack of awareness and high premium rates.
- Enhance claims services through satellite-based hazard risk and loss assessment using remote sensing and geospatial technologies.

Stakeholder Engagement for Risk Management:

- (Re)insurers and brokers should engage in discussions about potential public-private partnership programs.
- GIS-based hazard risk analytics can reduce future NAT CAT impacts and enhance insurability.

Government Initiatives:

- The government can make it mandatory for commercial organizations to allocate a certain percentage of revenue toward climate change/DRR awareness annually.
- Explore the possibility of CAT Bonds in the Indian market for additional funding capacity.

Compulsory Coverage and Collaborative Approach:

- Make NAT CAT Insurance Cover compulsory in highly vulnerable areas.
- Collaborative efforts involving government, insurers, reinsurers, brokers, and intermediaries are crucial for reducing future NAT CAT impacts and building resilience.

Cyber Insurance

The cyber protection gap is rapidly expanding across sectors due to increased exposure, higher digital usage, and growing connectivity. Limited awareness and knowledge about Cyber insurance products among corporate customers contribute to this gap. Our study emphasizes the need for explicit coverage specifications, with key professionals, including CFOs, CIOs, and CISOs, understanding their cyber risk exposure.

Key Findings:

- Many companies, except large ones, lack cyber risk evaluations and testing, highlighting vulnerability gaps.
- Collaboration between insurers, intermediaries, and cyber security firms can facilitate regular cyber risk assessments.

Risk Management Strategies:

- Prioritize major threats like ransomware and social media risks over data losses.
- Shift policy focus from data losses to business interruption and crime as major losses.
- Encourage corporations to invest in robust risk systems and technology infrastructure.

Enhancing Cyber Insurance Awareness:

- Impose higher deductibles to make corporations assume responsibility for prevalent losses.
- Address the shortage of expert underwriters in the cyber insurance industry.
- Tailor approaches are based on distinct customer profiles and levels of awareness.

Comprehensive Risk Analysis:

- Develop industry-specific cyber risk taxonomy and exposure modeling.
- Create a comprehensive database of historical incident losses for risk-based rating models.
- Conduct regular cyber risk assessments in collaboration with cybersecurity firms.

Consumer Education and Awareness:

- Reduce the cyber risk protection gap through awareness campaigns.
- Regularly update insurers, intermediaries, and clients on global risk changes.
- Consider standalone cyber insurance bundled with cyber security risk mitigation solutions.

Investment in Technology Infrastructure:

- Encourage insurers to invest in robust risk systems for effective cyber risk assessment.
- Regularly update stakeholders on the evolving cyber risk landscape through newsletters and articles.

By implementing these recommendations, the cyber insurance industry in India can bridge the protection gap, fortify resilience, and enhance offerings across sectors. Regular updates and collaboration with cybersecurity firms are crucial for staying informed and ensuring ongoing effectiveness in risk management.

Crop Insurance

The insured area and sum insured for crop insurance in India have recently decreased, accompanied by a decline in the number of insured farmers from 6.1 crores to 5.2 crores in 2023. The primary reason for low penetration is the government's decision to make crop insurance optional for loanee farmers, leading to non-renewals. Some state governments have opted out of the PMFBY scheme, affecting coverage.

Key Challenges:

- Lower enrollment due to the removal of the mandatory requirement for loanee farmers.
- Several state governments opted out of PMFBY, affecting universal coverage.
- Young farmers (18 to 25 years) and low-income individuals face higher protection gaps.

Improving Crop Insurance Penetration:

- Recent initiatives, including stop-loss-based models, are expected to enhance penetration.
- Awareness drives and special enrollment campaigns during key agricultural periods.
- Collaboration with state governments, NGOs, and Farmers Producers Organizations (FPO) for awareness.

Recommendations:

- Mandatory education for insurers and intermediaries to educate low-income farmers.
- Use of technology, social media, and mobile applications for awareness campaigns.
- Compulsory crop insurance for loanee farmers, supported by premium financing from microfinance institutions.
- Group insurance schemes at the community level to reduce moral hazard and adverse selection.
- Incentive schemes for key stakeholders and periodic performance reviews for monitoring.

Enhancing Weather Data Quality:

- Strengthening weather data with satellite images, remote sensing, and ground sensors.
- Regular revision of term sheets for weather-sensitive crops based on climate change variations.
- Introduction of parametric-based product solutions with blockchain for instant claims payment.

Smartphone-Based Agriculture Application:

- Introduction of a smartphone app for seamless policy management, crop monitoring, and claims settlement.
- Integration with the PMFBY Agriculture web portal for data transfer and prompt settlement.

Loss Assessment and Claims Settlement:

- Utilization of geospatial technology, AI, and Virtual Reality for accurate loss assessment.
- Smartphone applications with video/picture-based assessment for expedited claims settlement.
- Adoption of AI & ML algorithms and blockchain for automated loss assessment.

Bridging the Protection Gap:

- Awareness campaigns emphasizing the importance of crop insurance among farmers.
- Customized products addressing evolving agriculture risk landscapes.
- Providing premium subsidies and claims support for small and marginal farmers.
- Encouraging risk mitigation practices through the distribution of hybrid seeds and technical support.

1. INTRODUCTION AND METHODOLOGY OF THE STUDY

1.1 Introduction and Background of the Study

Insurance serves as a crucial safety net for individuals and businesses, providing security in the face of uncertainties. Despite its evident importance, a significant number of people and corporates in India operate without the protective shield of insurance coverage. Even among those insured, studies reveal a concerning inadequacy in their coverage, raising alarms among stakeholders in the insurance and risk mitigation industry.

Compounding this challenge is the dynamic nature of the risk landscape, constantly evolving and presents individuals and corporate entities with an ever-changing array of risks. Traditional risks are intensifying, and the acceleration of climate change is exacerbating economic losses, impacting property, causing humanitarian crises, displacing people, and hindering development efforts and poverty alleviation on a global scale.

Climate change has resulted in more frequent and severe weather events, causing substantial economic losses and disruptions to property and economic activities. The impacts extend beyond environmental concerns, directly affecting the economy. Climate-induced disasters lead to humanitarian crises, displacing people, destroying livelihoods, and impeding development, with the most vulnerable populations suffering the most, amplifying issues related to poverty and inequality.

In the context of India, the insurance protection gap has widened due to multiple risk factors, including climate, cyber, and mortality and morbidity risks. The protection gap represents the disparity between insured and uninsured losses, with a high protection gap indicating a significant portion of risks remaining uncovered.

The natural catastrophic risk protection gap in India is estimated to be over 90%, indicating that a substantial portion of losses from natural disasters is not covered by insurance. This may be attributed to factors such as low insurance penetration, lack of awareness, or unaffordability of insurance products.

Apart from natural catastrophes, there are high protection gaps in mortality, annuity, and health coverage. This implies that many individuals and families in India lack adequate insurance coverage for life, retirement, and health-related risks.

Addressing these issues is crucial for the well-being of the population and the long-term economic stability of the country. Strategies should include improving insurance penetration and awareness, enhancing disaster preparedness and resilience, and developing climate adaptation and mitigation measures. Collaborative efforts between the government, the insurance industry, and other stakeholders are essential to create affordable and comprehensive insurance solutions, protecting individuals and communities from diverse risks.

To effectively bridge the insurance protection gap, ongoing assessments are necessary. Regular evaluations should consider the perspectives of policyholders, adapt strategies to changing risks, and shape policies that are comprehensive and inclusive.

As a team of researchers from the National Insurance Academy (NIA), we have undertaken a comprehensive study in this direction. In this report, we provide holistic insights into the state of insurance protection in India and propose ideas based on our findings. Through this effort, we aim to contribute by generating research-based knowledge and supporting stakeholders in realizing the vision of the Indian insurance regulator, aiming for insurance coverage for all by 2047.

1.2. Objectives of the Study

The research aims to achieve the following primary objectives:

- First, assess the status of insurance penetration in India across six selected lines of insurance business, namely Life Insurance, Pension and Annuity, Health Insurance, Property Insurance, Crop Insurance, and Cyber Insurance.
- Second, estimate the insurance protection gap within the chosen lines of insurance, offering a quantitative measure of the disparity between existing coverage and actual needs.
- Third, identify the key factors contributing to the protection gap and comprehend the implications of this gap on the insurance business.
- Lastly, based on nuanced insights obtained from the study, recommend practical strategies designed to bridge the identified insurance protection gap.

1.3. Scope of the Report

This report presents a comprehensive analysis of India's insurance landscape, focusing on six key lines: Life Insurance, Pension and Annuity, Health Insurance, Property Insurance, Crop Insurance, and Cyber Insurance. Through a nationwide survey encompassing both retail and commercial insured and uninsured customers, the report provides valuable insights into customer perspectives. It quantitatively assesses the insurance protection gap, highlighting disparities between existing coverage and actual needs.

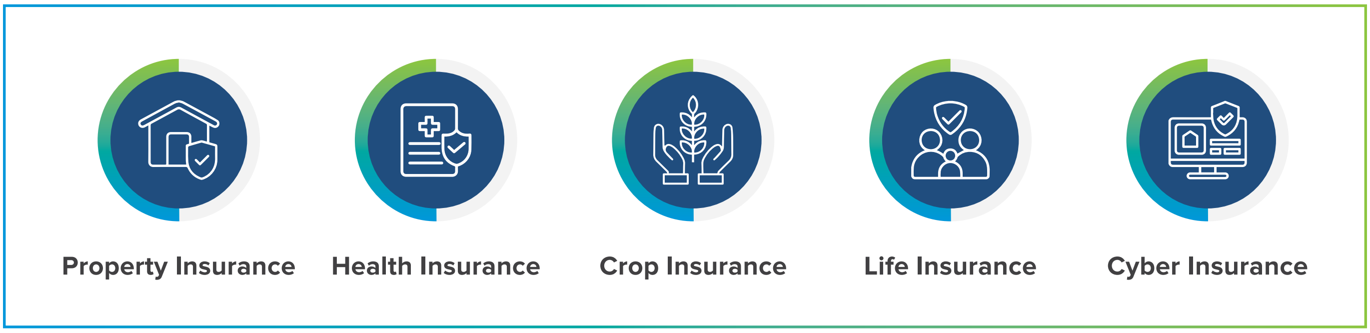
Dedicated sections explore each of the six lines of insurance, providing a detailed understanding of their current status and proposing pragmatic strategies to bridge identified gaps. The report aims to be a valuable resource for stakeholders, policymakers, and industry professionals, offering actionable recommendations for the continuous advancement of the insurance sector.

1.4. Methodology

This study adopts a mixed research approach to investigate the intricacies of the insurance protection landscape in India. Initially, a secondary research phase was executed, delving into scholarly literature, reports, and pertinent sources to establish a foundational understanding of the dynamics surrounding insurance protection.

Subsequently, focused group interviews were conducted with domain experts spanning various sectors. These interactions provided qualitative insights, enriching our understanding of aspects within the insurance protection domain.

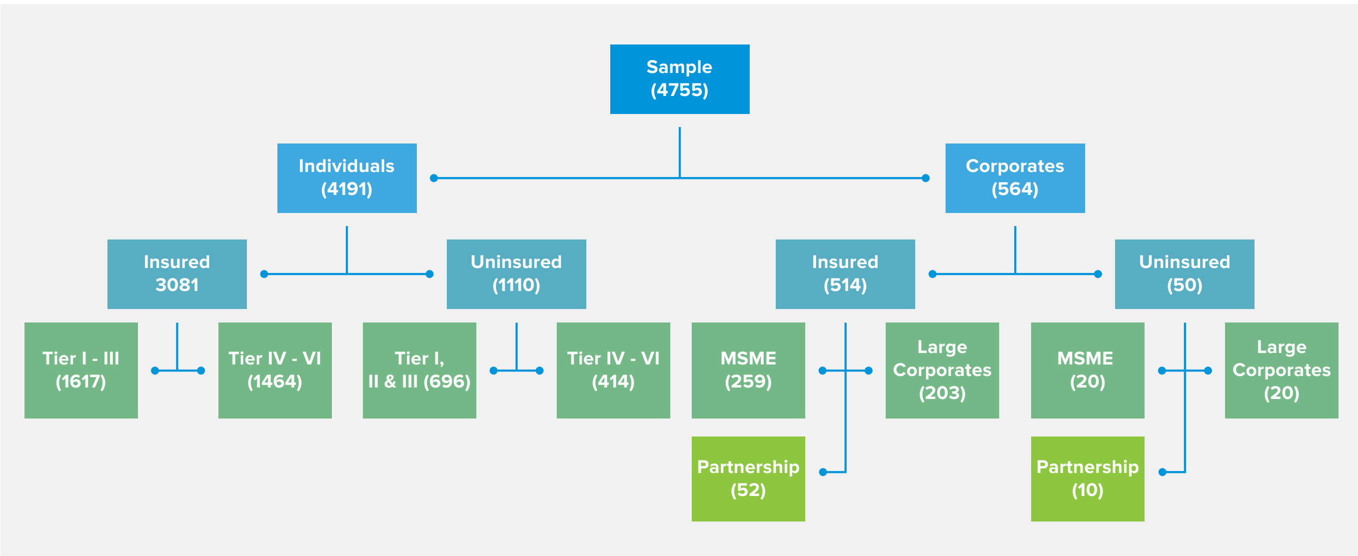
Focused Group Discussions (FGDs) : 21 people



Following this qualitative phase, an extensive primary research initiative ensued to understand the perceptions of urban and rural insured and uninsured retail and corporate customers. The survey methodology employed structured questionnaires crafted based on insights derived from secondary research and expert interviews. The required primary data were collected through a Pan-India survey conducted from September 2022 to May 2023 across different cities, towns, and rural areas.

For the survey of respondents in urban areas, the services of the international research agency was utilized. The rural survey was conducted by another agency exclusively for retail/individual customers in the selected districts in rural areas. The responses were collected through personal interviews with the selected sample respondents using the structured questionnaire.

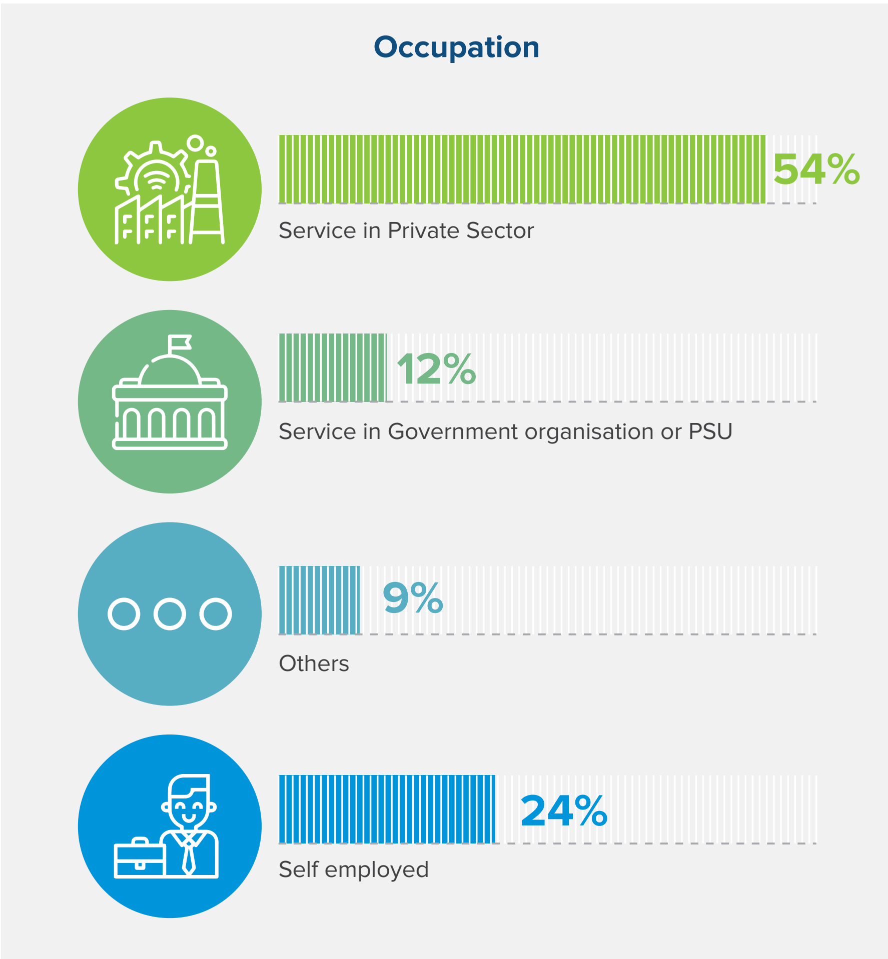
The chart below provides details of the sample-

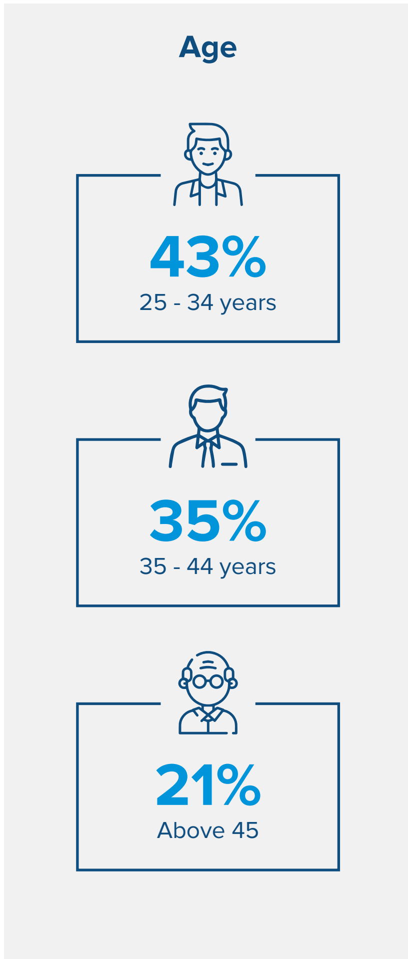


As depicted in the diagram above, we gathered a total sample of 4,755 respondents, comprising individuals and corporate customers. The sample included both insured and uninsured populations residing in metro cities, urban areas from Tier I to II, and rural areas from Tier IV to VI. The survey encompassed a diverse range of respondents with varied social, economic, and educational backgrounds, spanning different occupational categories, including agriculture workers/farmers and workers from unorganized sectors. The corporate customer sample consisted of 564 large corporations, MSMEs, businesses, traders, partnership firms, etc.

Respondents' Profile

Urban Respondents

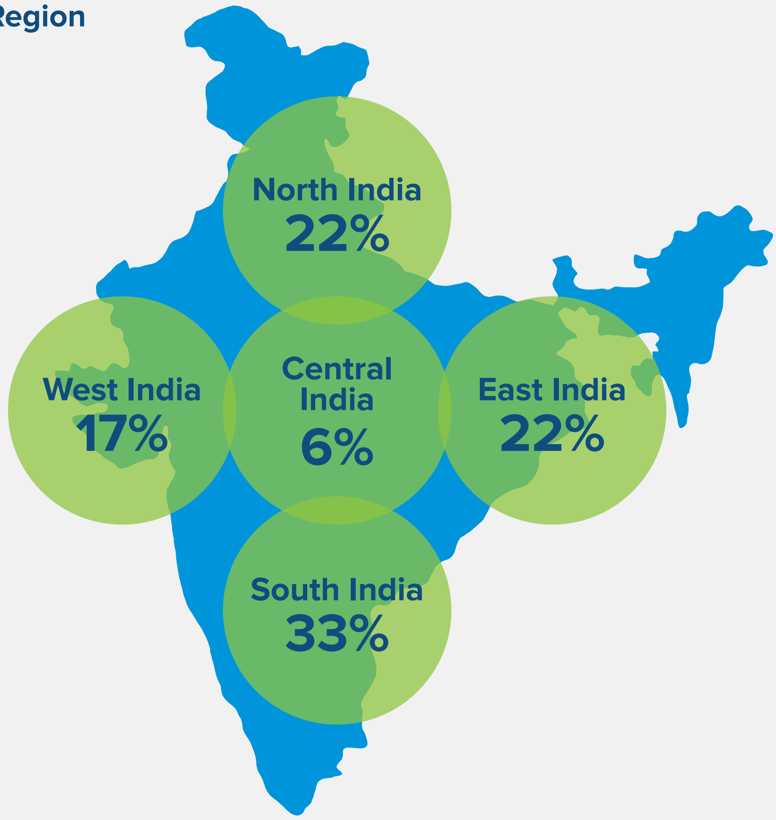




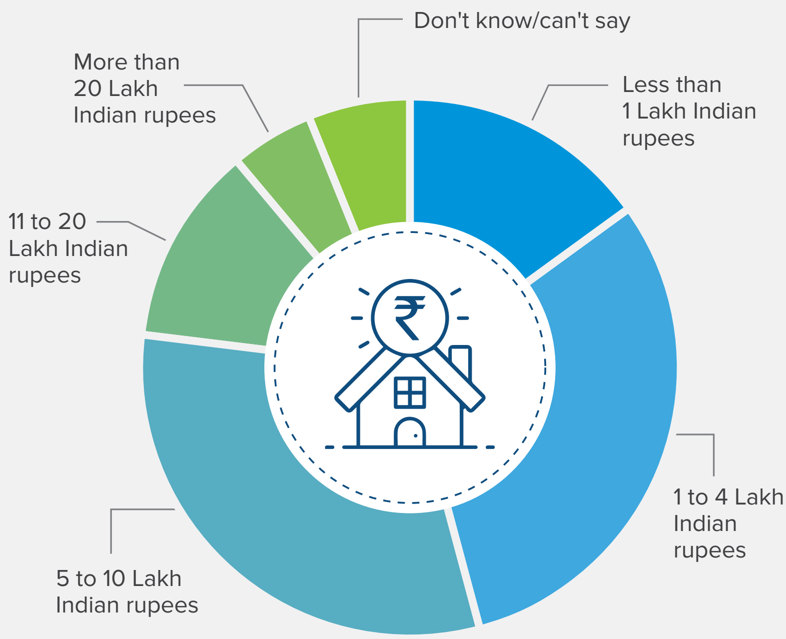
Education

- **Less than 1 %**
  Not applicable: Illiterate
- **1%**
  Literate but no formal schooling/School up to 4 years
- **2%**
  Schooling between 5–9 years
- **10%**
  High School pass (SSC/HSC)
- **9%**
  Diploma or college certificate but not a graduate
- **53%**
  Graduate or Post Graduate General (B.A., M. A., B Com, BSC etc.)
- **25%**
  Graduate or Post Graduate Professional (MBA, MD, PhD etc.)

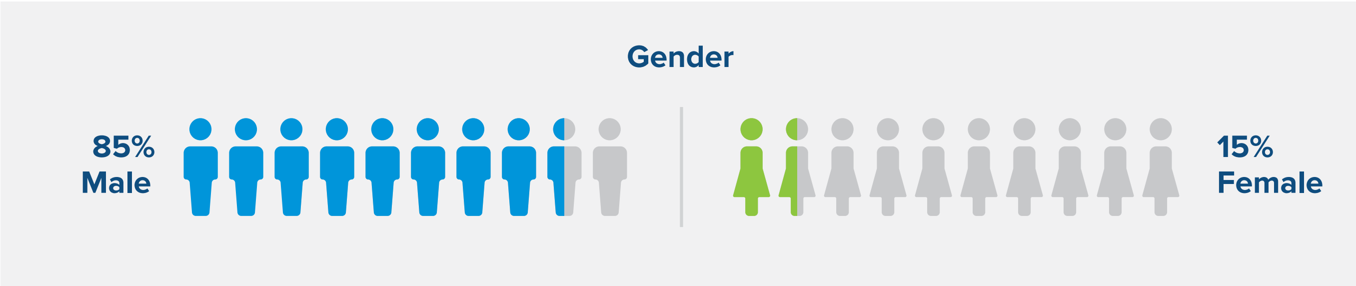
Region

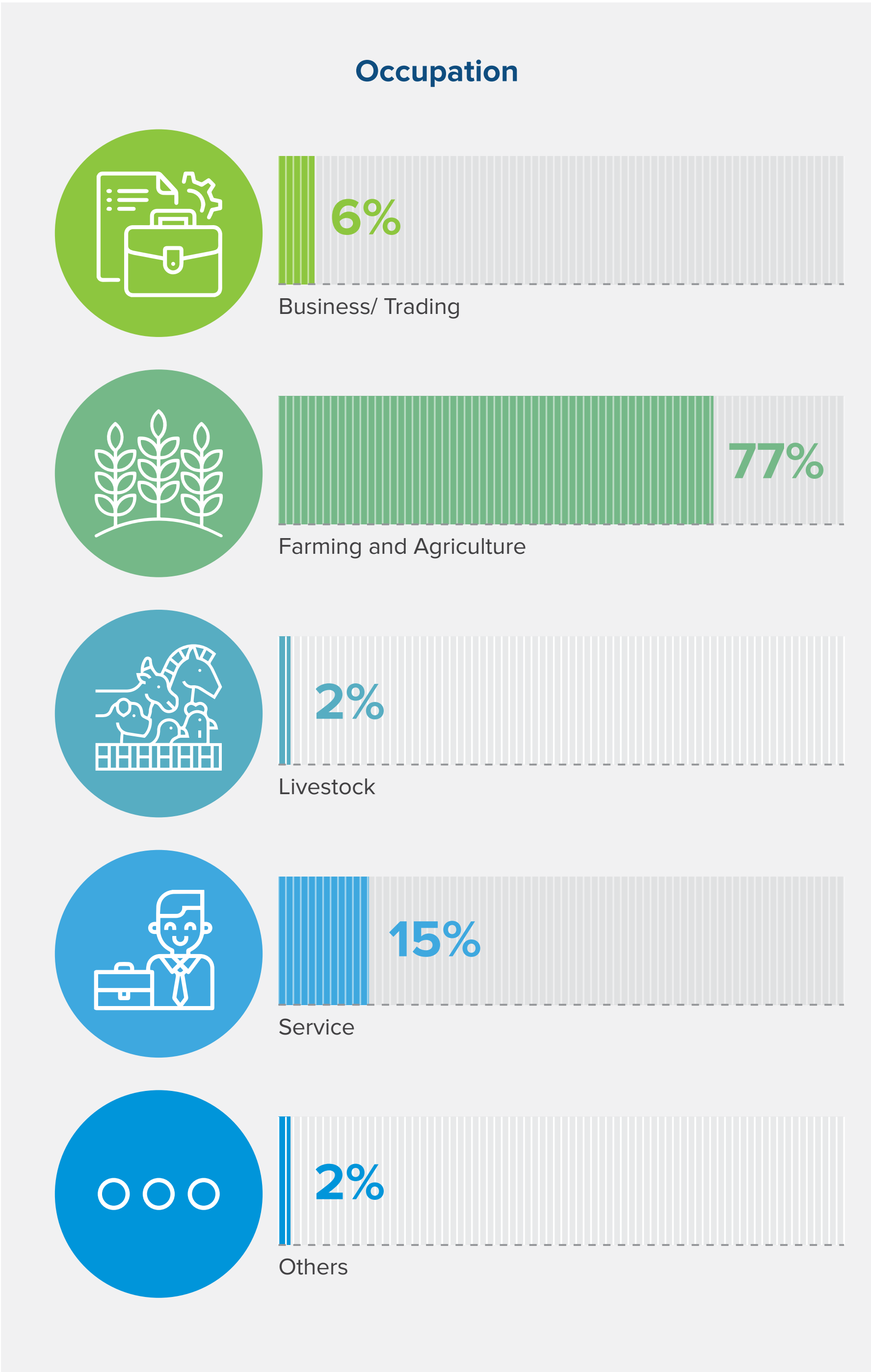


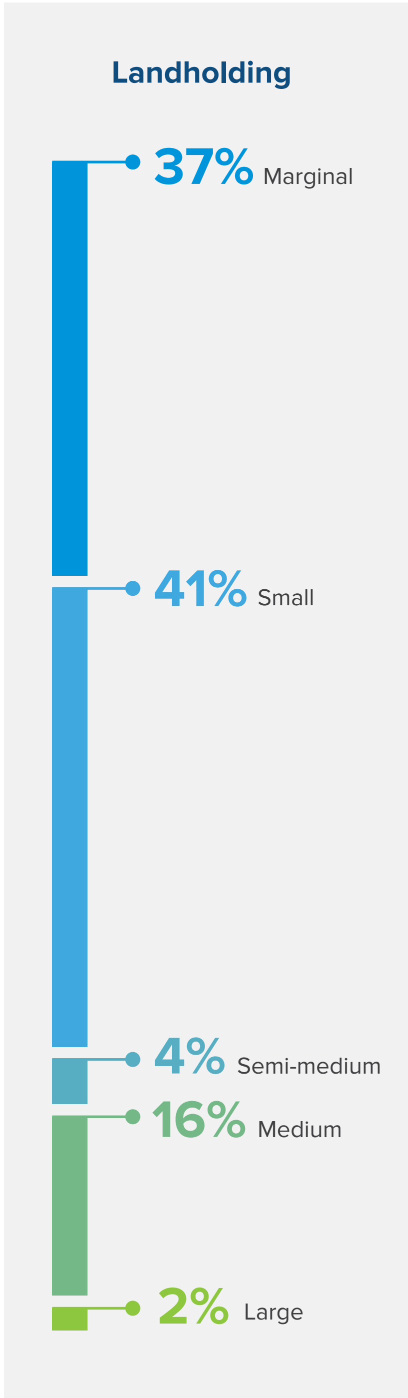
Annual Household Income



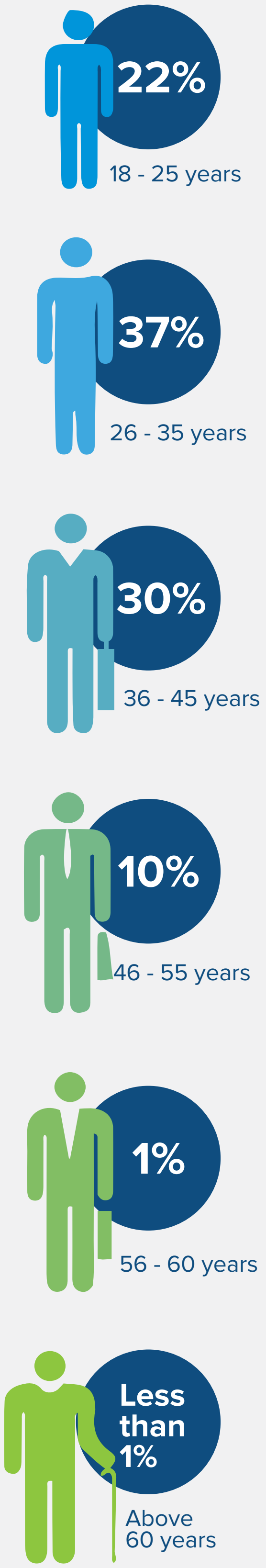
Rural Respondents



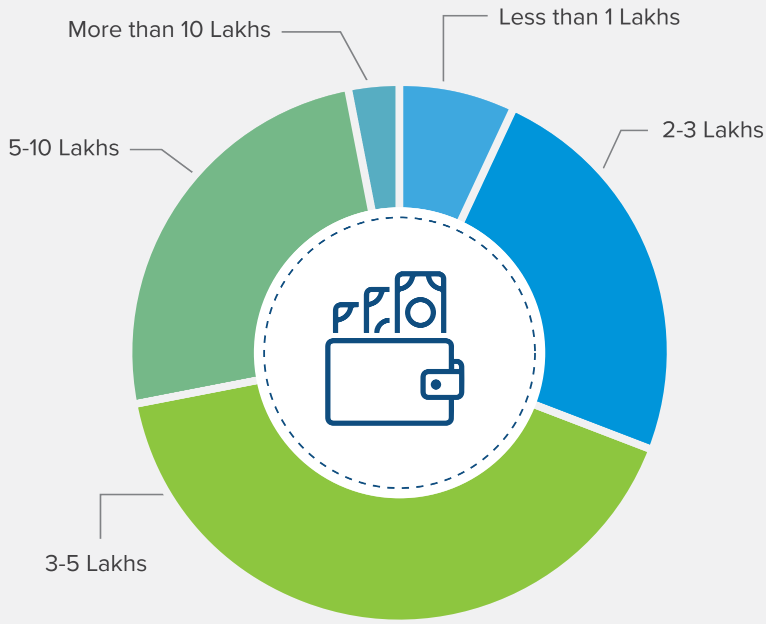




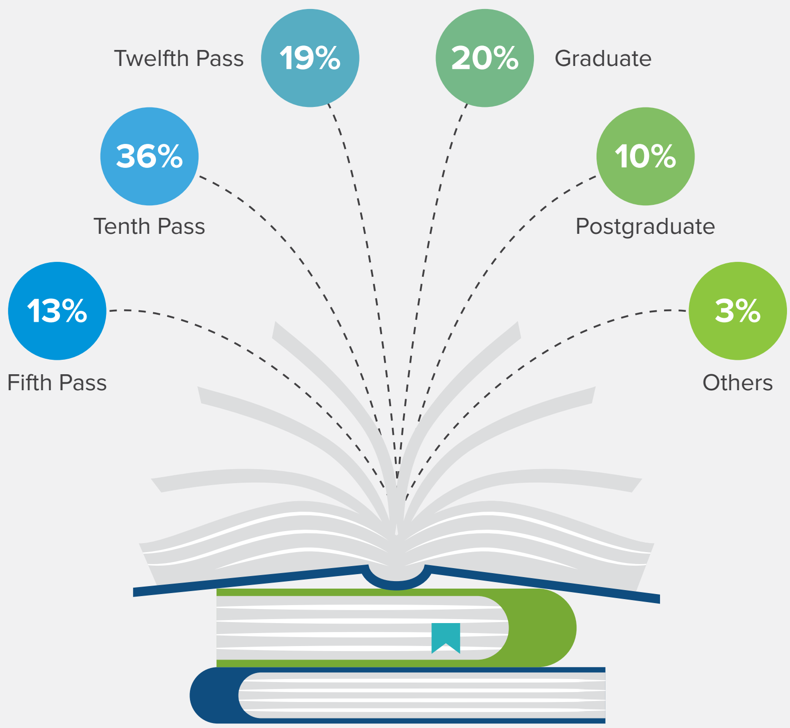
Age



Income

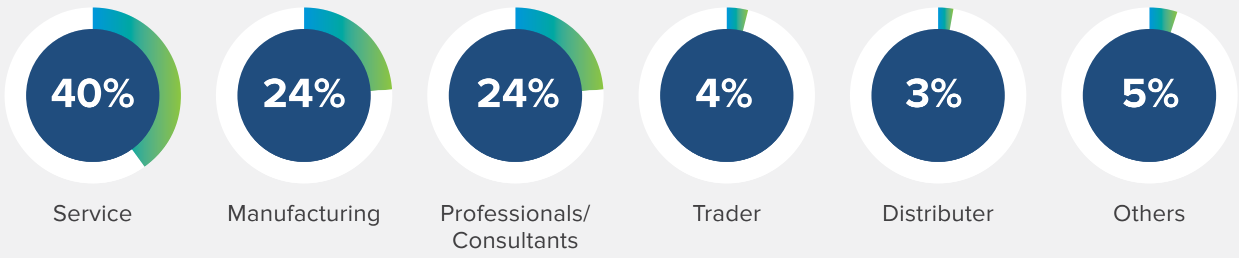


Education

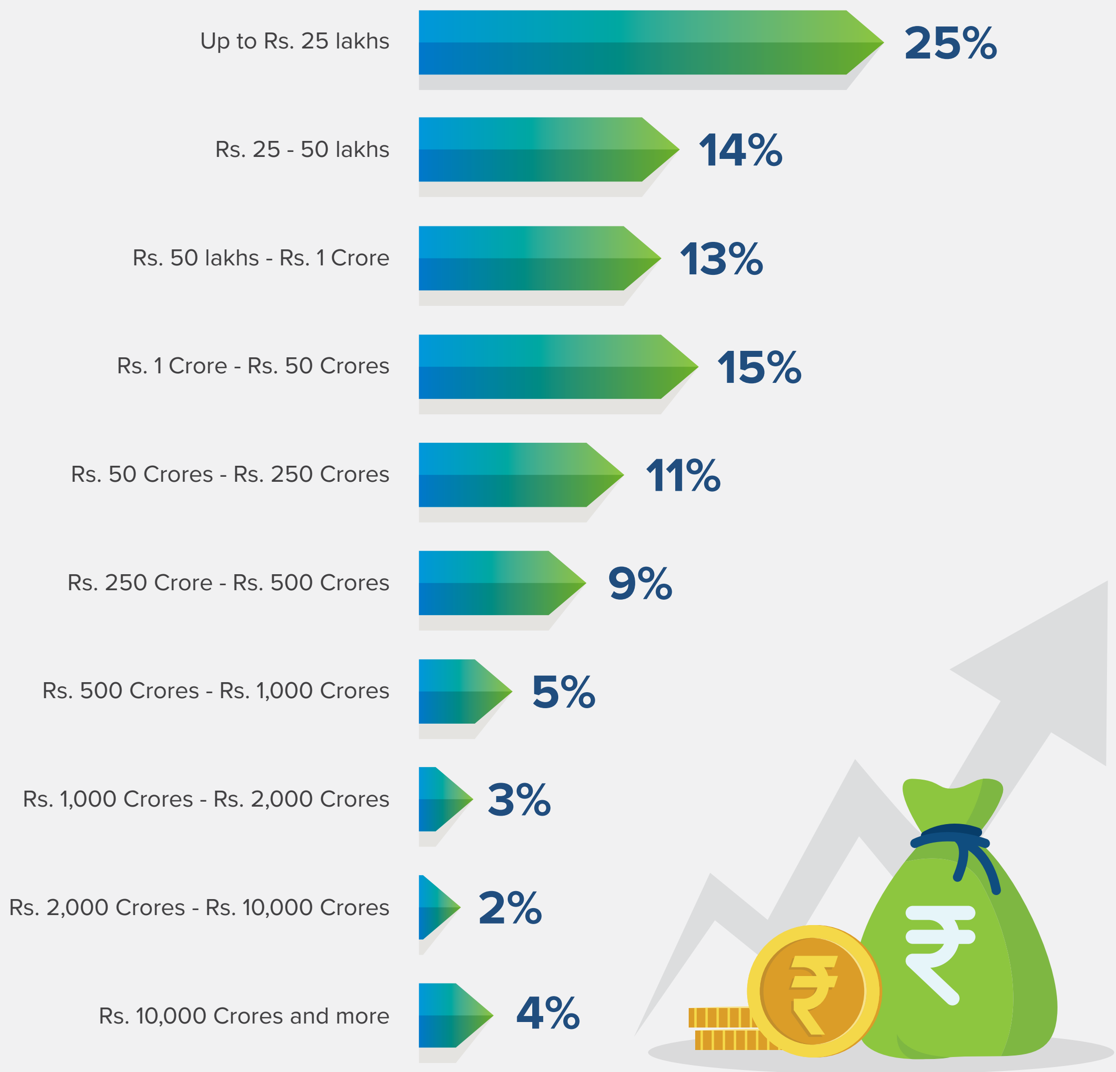


Corporate Respondents

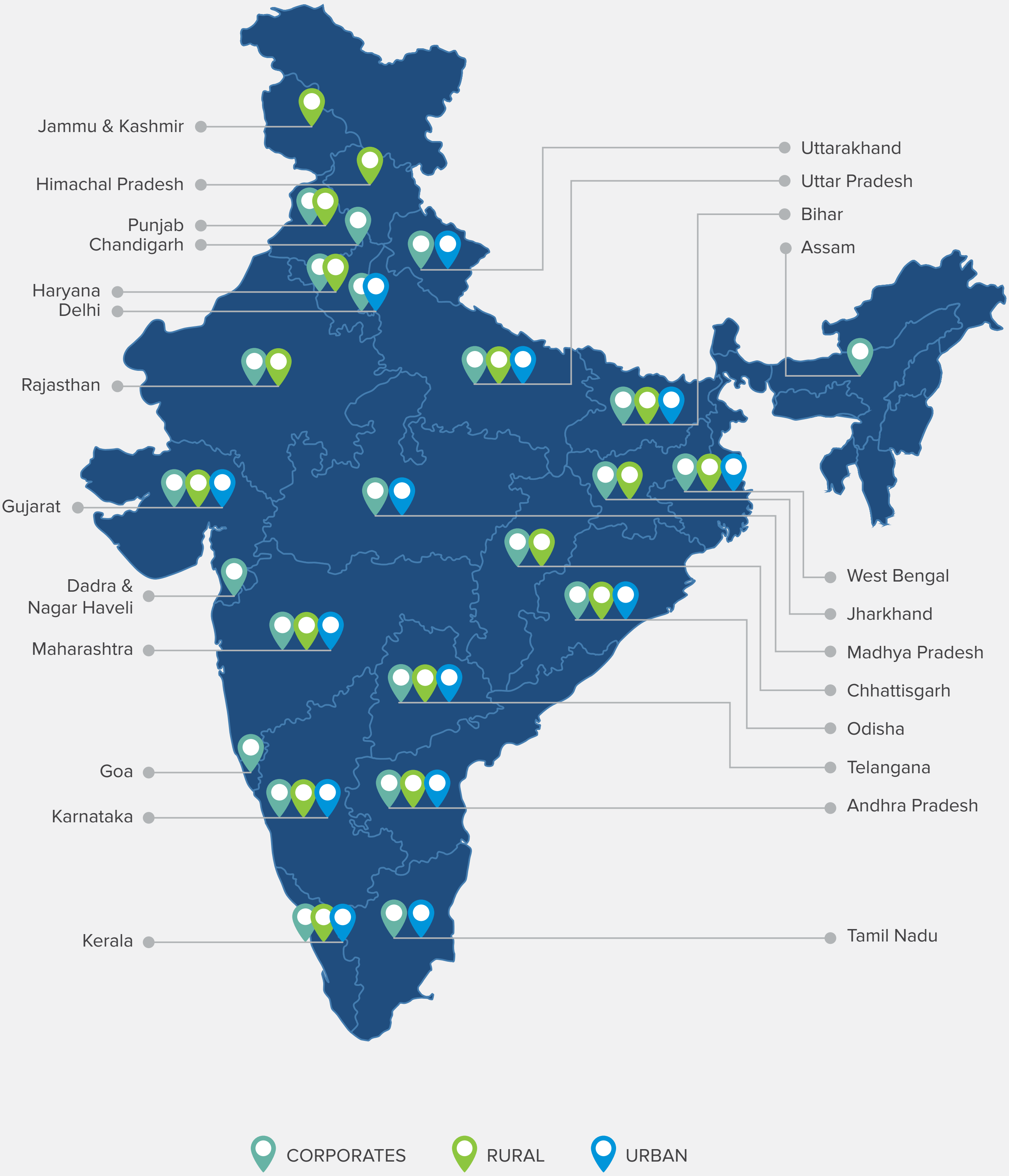
Type of Corporates



Profit



States & UT


Jammu & Kashmir
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Rajasthan
Gujarat
Dadra & Nagar Haveli
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Karnataka
Kerala
Uttarakhand
Uttar Pradesh
Bihar
Assam
West Bengal
Jharkhand
Madhya Pradesh
Chhattisgarh
Odisha
Telangana
Andhra Pradesh
Tamil Nadu
CORPORATES
RURAL
URBAN

Following data collection, a meticulous process of data cleaning and formatting was undertaken to ensure accuracy and reliability. This involved identifying and rectifying inconsistencies, outliers, and missing values. Subsequently, necessary data analysis, primarily descriptive and explorative analyses, was performed using statistical software, offering a comprehensive overview of the dataset's key characteristics, trends, and patterns.

The preliminary results of the study were presented to the group of industry experts and their suggestions were incorporated in the report.

Colloquium :
17 people

In conclusion, our study adheres to a rigorous research methodology, integrating diverse methods to ensure a meticulous and reliable approach. The study results and interpretations were derived from qualitative data analysis and secondary data-based cohort and trend analysis. This comprehensive analysis enhances the credibility of our findings, contributing significantly to the study's overall robustness.

Subsequent chapters delve into the findings and managerial implications emerging from the analyses of both primary and secondary data in each selected area of the key business lines exclusively.

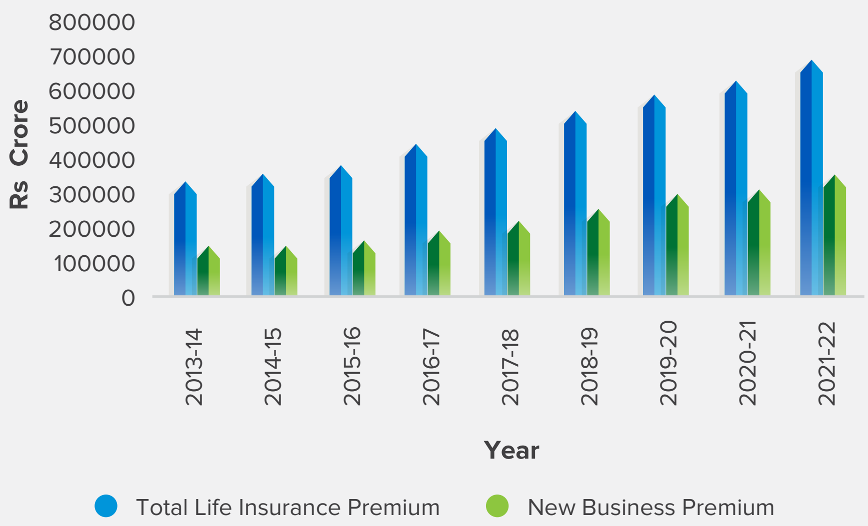
2. Life Insurance

2.1 Introduction:

The life insurance industry has exhibited robust growth, boasting **a Compound Annual Growth Rate (CAGR) of 11% in total premium volume and an impressive 17% CAGR in new business premiums from 2017 to 2022.** In the fiscal year 2021-22, total life insurance premiums reached Rs. 6.92 lakh crores (equivalent to USD 83.17 billion*), a substantial increase compared to the Rs. 4.18 lakh crores (USD 50.24 billion*) recorded in 2016-17.

Despite this growth, the number of individual policies under life insurance has remained at 32.8 crores in 2022[1]. Taking all major segments into account, which include individual, group, and micro-insurance, the total number of policies issued stands at approximately 67.7 crores (32.8 crores - individual life, 21.5 crores - group, and 13.3 crores - micro-insurance). It's important to note that many insured individuals hold multiple policies, estimating the total number of insured people to be approximately 45.13 crore[2], which represents 32% of the entire population (45.13 crores vs. 142 crores total population).

Figure 2.1 Life Insurance Total Premium and New Business Premium Growth (2013 to 2022)



Source: IRDAI Annual Reports

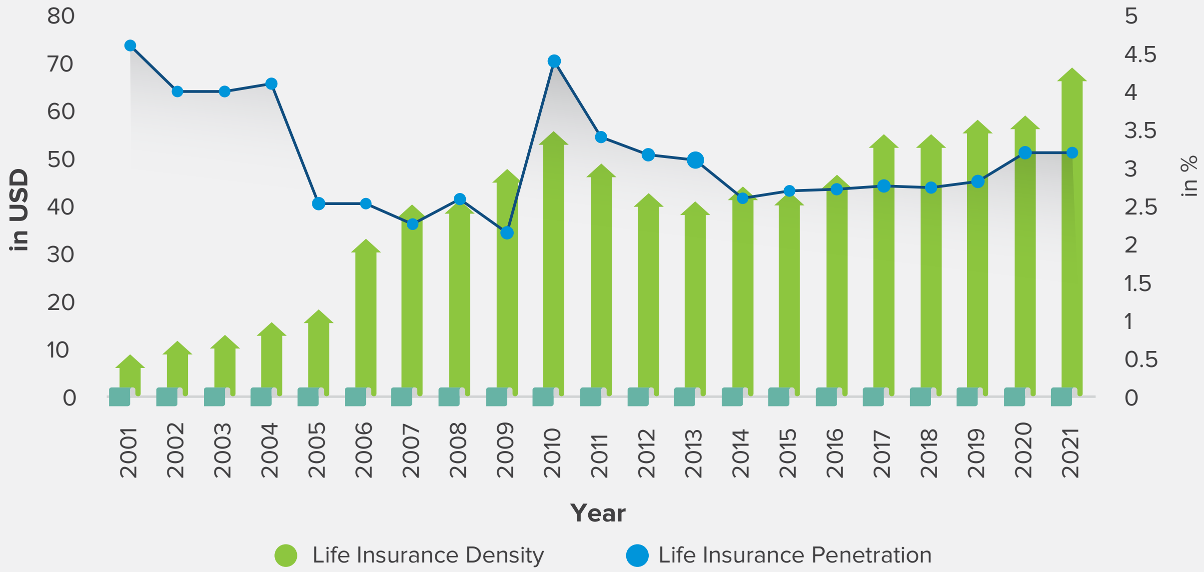
Furthermore, the life insurance penetration and density are also comparatively lower. According to Swiss Re Report, Sigma No. 3/2021, Life Insurance Penetration (Premium as a percentage to GDP) is 3.2%, and Life Insurance Density (Premium per capita (In USD)) is only USD 69, which is comparatively much lower than the other leading economies.

[1]All historical statistics of premiums, penetration, policies taken from the IRDAI Annual Reports (2002 to 2022).

* USD 1 = Rs 83.23

[2]Considering most policy holders have more than one policy, the actual number of people covered under life insurance is estimated by dividing the total number of policies (67.7 crore) by 1.5 times (2/3), which yields 45.13 crore.

Figure 2.2 Life Insurance Penetration and Density (2001 to 2022)



Source: IRDAI Annual Reports

Despite witnessing consistent annual growth in the range of 15% to 17% in new business premiums over the last five years, the life insurance penetration in the market has shown little significant change, remaining within the 3% to 3.2% range over the past decade. This is a matter of concern when compared to relatively smaller markets like South Africa (14%), Hong Kong (14%), and Taiwan (15%), as reported by Swiss Re in 2021. These comparative statistics underscore the stark disparity in life insurance penetration and density, indicating a wider protection gap in our market.

The primary objective of acquiring life insurance is to protect policyholders against mortality risk, ensuring their dependents have sufficient financial support in the event of the breadwinner's untimely demise. Individuals must secure substantial coverage to maintain their family's quality of life in such unfortunate event. However, many customers still primarily view life insurance as financial products rather than risk protection, with nearly 98% of policies purchased being savings oriented products. This heavy reliance on financial products which may not be the right option to ensure adequate protection.

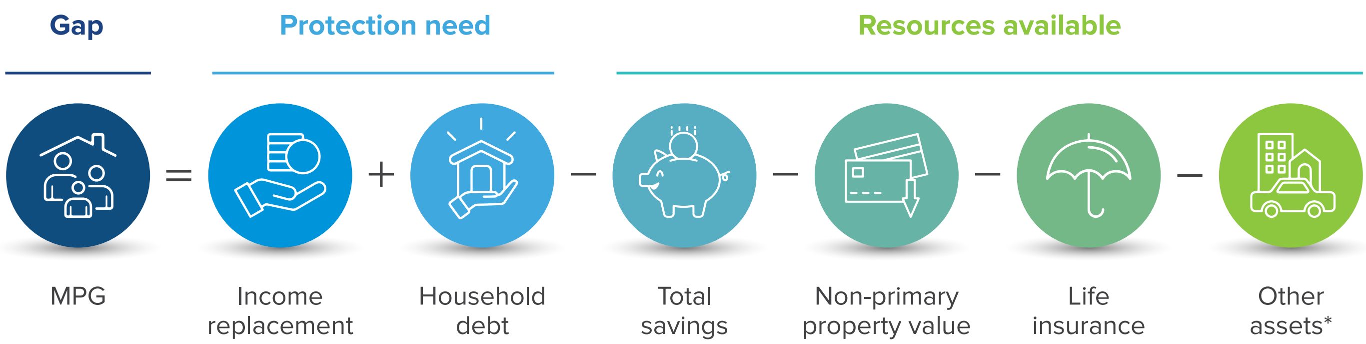
In India, the Insurance Protection Gap currently stands at an alarming level, exceeding 90%, and this gap is continually expanding, primarily driven by the escalating risks associated with Climate Change and the increasing occurrences of catastrophic events and pandemics. Specifically, in the domain of Life Insurance, the protection gap has been on the rise. For instance, in 2021, the mortality protection gap was a staggering 83% despite some improvements in life insurance penetration immediately following the pandemic (rising from 2.8% in 2019 to 3.12% in 2021). However, our recent study indicates that the mortality protection gap in 2023 has further increased to 87%.

The growing mortality protection gap is imposing an increasing financial burden on families, particularly in the absence of the breadwinner. This can devastate dependents, rapidly depleting family savings upon the untimely demise of the provider. When coupled with increasing longevity risks, healthcare expenses, and education costs, this burden intensifies, impacting affected families and potentially increasing financial liabilities of the government and social costs on the economy. Recognizing the significance of these trends, we conducted an empirical study to measure the mortality protection gap in various socio economic and demographic segments. The primary goal was to comprehend the reasons behind this gap's expansion and develop recommendations for its mitigation.

2.2 Estimation of Mortality Protection Gap (MPG):

As per Swiss Re Research, Mortality Protection Gap is defined as the difference between the protection needs of a household and the financial resources available to maintain the reasonable standard of living of the family in the absence (premature death) of the breadwinner. The protection needs of the household are determined based on the essential criteria hinge - the concept of income replacement. This refers to determining the total income necessary for a family to uphold their existing quality of living. This calculation involves a predictive model, which estimates an individual's income requirement till retirement age, typically around 60 years. This model incorporates several key factors, including age, family dependency, anticipated inflation rates, and the overall economic trajectory of the country. Notably, it considers the evolving landscape of dependency ratios, outstanding financial obligations, inflation, and economic development. In line with these principles, we have also employed a comparable formula to assess the mortality protection gap, leveraging insights gleaned from our household survey data, as presented below:

Calculating the mortality protection gap in present value terms



*inclides social security survivor's benefits and compensation from employers
Source: Swiss Re Institute

To gauge future protection requirements, a prospective approach involves projecting household expenses as a ratio of current income, inclusive of anticipated medical and education costs for the entire family throughout the primary breadwinner's employment period. Additionally, factors such as household debt, including outstanding housing mortgages, credit commitments, and personal loans, are factored into the equation to provide a comprehensive estimation. **Thus, the mortality protection gap is estimated using the projected protection need and subtracting the available financial resources, including personal financial investments in financial products (FD + Mutual Fund + Equity + Life insurance) and other assets, including investments in property, gold, etc.**

Furthermore, while estimating the Mortality Protection Gap, we have made the following assumptions:

1. The protection requirements are estimated for every household by projecting the income requirement for his family depending upon his current age at work and number of years of employment remaining to attain retirement (60 years), number of dependents, historical long-term interest rate, annual average inflation rate, and the real GDP growth rate for the forecasting period.

2. The historical mean interest rate of 8%, the inflation rate, and the real GDP growth rate at 6% are assumed for the future period (2023 to 2052); as the economy grows large, the growth and inflation rate are expected to decline.

3. Once the accumulated total Income for the future period was estimated, the current outstanding debt liability, including mortgage loans, credit and personal loans taken, and the actual cost of health care, were also added.

4. After estimating the total protection required, the present value of the respondents' future Income was calculated at a 6% discount rate.

5. The amount of financial resources available was estimated by considering the household's investment in bank or corporate deposits, mutual funds, equity, gold, property, etc. It also includes the investment in life insurance, including group term, health insurance, and retirement benefits (Gratuity, Provident Fund, and Pension).

In our study, we estimated the overall Mortality Protection Gap as the difference between the present value of the total required protection amount and the available financial resources, which encompass purchased life insurance. We assessed the protection gap for each household within our sample of 2,710, encompassing both the insured and uninsured populations. (While estimating the protection gap, the outliers like unemployed individuals, students, singles (unmarried) individuals earning over one crore annually, and the retired individuals were excluded from the data set).

The overall mortality protection gap for our sample is estimated as 87% for the year 2023. Notably, only about 18% of the eligible population had subscribed to the individual protection plans during the year 2020-21 and the mortality protection penetration was 12% (based on sum assured)[3]. This protection penetration correlates with our results of 87%. As compared with earlier years mortality protection gap estimation of 83 % in 2019, the current mortality protection gap has risen. The primary reasons for the increase could be attributed to lower economic growth and increased cost of living during the pandemic. Furthermore, lower growth of risk protection products, declining interest rate, increased inflation rate, unemployment, and increasing longevity has also contributed to the risk (Swiss Re, 2023).

Swiss Re estimates that the protection needed for developing countries or emerging Asia would increase to US$105 trillion; the same for India is estimated to be US$ 35.6 trillion in 2030.

The higher protection gap provides a huge business opportunity for the life insurers in India. Swiss Re points out provision of opportunity costs amounting to US $40.6 billion in the near future. This makes it imperative to break out the total protection gap values across different age groups, income, and occupational segments to identify the high-potential demographic segments that can help develop suitable marketing strategies for businesses.

[3] PwC report 2023 on bridging gaps in the India Insurance Sector

2.3 Mortality Protection Gap Analysis:

To gain deep insight and understand the reasons for the mortality protection gap, a detailed micro-analysis of the protection gap data was carried out across different demographic and socio-economic segments. Furthermore, customers' perception of life insurance products, ownership, awareness level purchase behaviors, risk protection adequacy, life insurance coverages, and customer satisfaction with the current policies, were also analyzed. The results are discussed in the following sections:

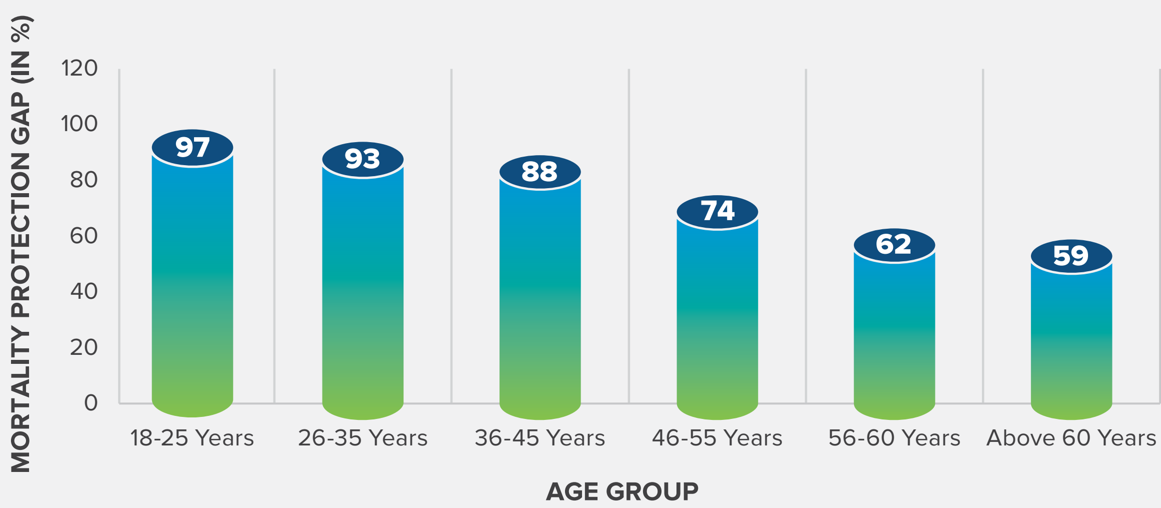
2.3.1 Mortality Protection Gap Across Demographic Segments:

The income protection needs and the financial resources available to ensure adequate risk protection vary significantly across demographic customer segments such as age groups, gender, occupation, and diverse income levels. Thus, it is necessary to study the mortality protection gap differences across these groups to identify the customer segments and regions of elevated protection. This will help assess the reasons for such variations and help identify solutions to minimize the protection gap.

2.3.2 Variations of Mortality Protection Gap Across Different Age Groups:

Mortality Protection Gap analysis across different age groups indicates that the mortality protection gap is high among young customers, and gradually decreases as they grow closer to 60 years and above as reflected in Figure 2.3. This analysis reveals an inverse relation between the customers' age and the protection gap.

Figure 2.3 Mortality Protection Gap Across Different Age Groups – Combined



The protection gap among customers between the ages 18 to 25 years and 26 to 35 years is above 90%. It must be noted that most of the younger (25 to 34 years) age group who are the primary life insurance segment has the highest protection gap over 90%. This observation underscores a distinct trend among younger customers, revealing a prevalent gap in life insurance coverage, often leading to insufficient protection. The purchasing behavior of the younger demographic significantly diverges from that of middle-aged or older individuals.

Notably, the millennium generation displays a pronounced inclination toward online channels and mobile applications for procuring life insurance, in contrast to the traditional avenues such as agent-based or banc-assurance methods. This evolving consumer landscape necessitates a strategic adaptation by life insurance providers.

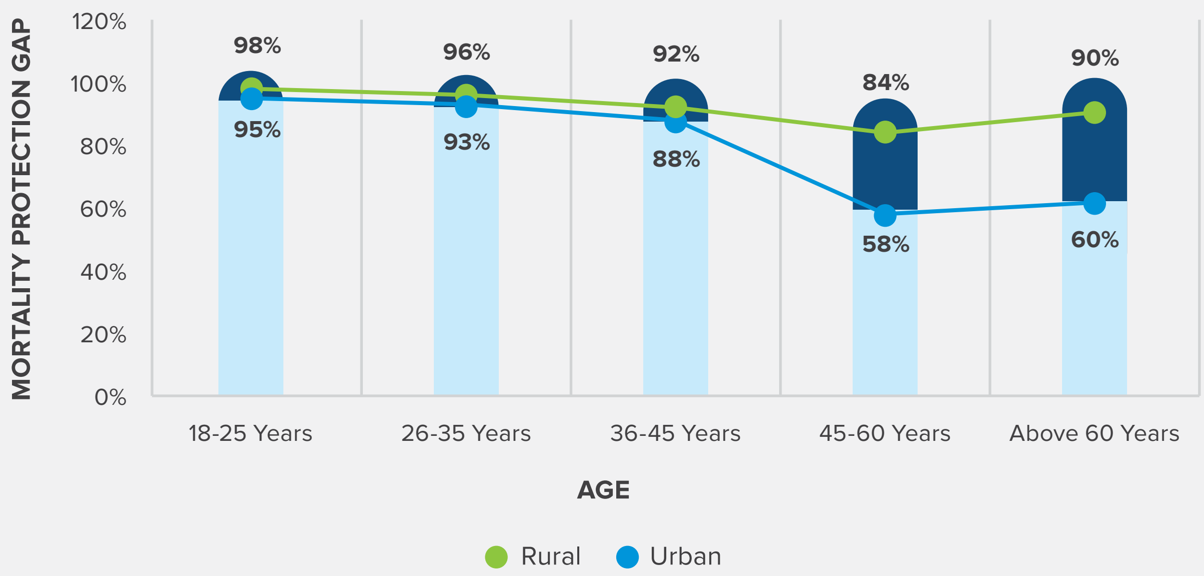
It is evident that young individuals particularly millennials often contend with substantial family responsibilities and ambitious career aspirations, which can limit their ability to accumulate substantial savings or allocate surplus funds toward comprehensive protection coverage. However, it remains crucial for this demographic to prioritize establishing savings, which should encompass life insurance as a pivotal component, safeguarding their financial well-being in future years.

Surprisingly, large number of middle aged (36 - 45 years) customers also have a significantly higher protection gap of over 90%. The upper middle-aged customers are expected to purchase sufficient life insurance coverage. Lack of adequate coverage indicates the inability to purchase due to higher financial responsibilities and insufficient funds.

Furthermore, it's essential to acknowledge that a significant portion of this demographic needs a structured approach to retirement planning. This underscores the urgency of seeking substantial insurance protection, particularly in light of the rising life expectancy (longevity risk), inflationary pressures, escalating medical expenses, and the need to ensure a comfortable standard of living for an extended post-retirement period spanning at least 20 to 30 years.

A significant individuals aged between 35 and 44, face a pronounced gap in their protection coverage. This middle-aged demographic represents a pivotal stage in life when the focus shifts towards building robust family financial reserves and securing their retirement. The financial commitments during this period encompass children's education, medical expenses, and diligently accumulating savings for retirement. Therefore, individuals in this age group must guarantee that their life insurance coverage is not only sufficient but also to ensure the establishment of substantial financial reserves to safeguard the well-being of their dependents.

Figure 2.4 Mortality Protection Gap Across Different Age Groups - Urban & Rural



In the urban setting, the customer segment falling within the middle-age bracket, typically ranging from 45 to 60 years, exhibits a notably reduced protection gap, which stands at a mere 58%. Evidently, only a modest 59% of individuals within this group face a heightened level of protection gap.

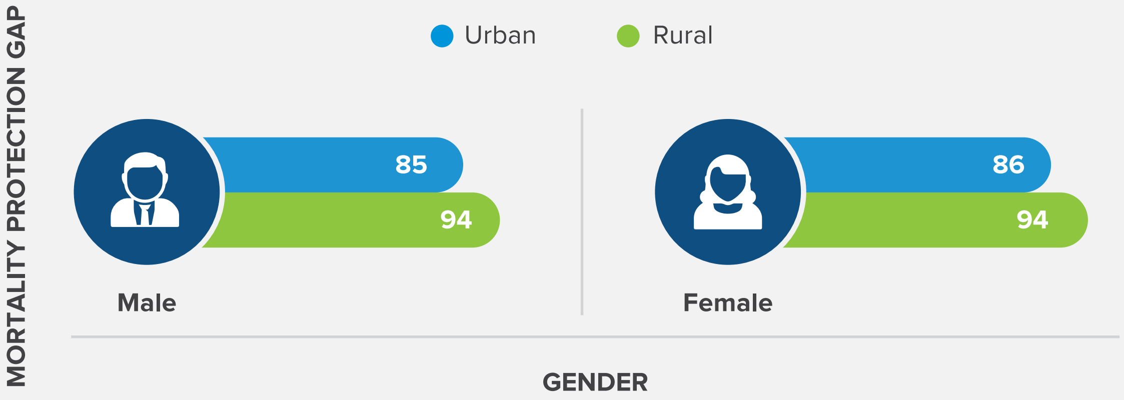
Conversely, a substantial 31% of middle-aged customers demonstrate a commendable low protection gap, typically within the 60% to 80% range. This observation suggests that individuals in this demography have an improved awareness about the significance of adequate risk protection. They also strongly commit to cultivating diverse financial investments to provide for their family's financial well-being in the unfortunate event of the loss of breadwinner.

Additionally, when we examine the older age group (those above 60 years) residing in urban areas, they exhibit a notably reduced protection gap. In contrast, their counterparts in rural areas grapple with a much larger protection gap, reaching nearly 90%.

2.3.3 MPG Differences Among Male and Female Policyholders:

This analysis shows that male customers have a comparatively lower protection gap of 85%, while females have a slightly higher protection gap of 86%. Comparatively, rural area customers have a higher protection gap. The male and female customers have over 94% protection gap.

Figure 2.5 Mortality Protection Gap Across Gender - Urban & Rural

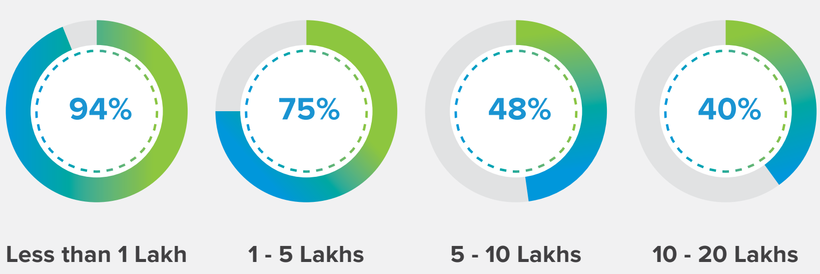


As increasing number of women now come to workforce in both urban and rural areas, they need to be educated about importance of protecting their life and family through sufficient risk protection and savings plan.

2.3.4 Protection Gap across the customer segments with different Income Levels:

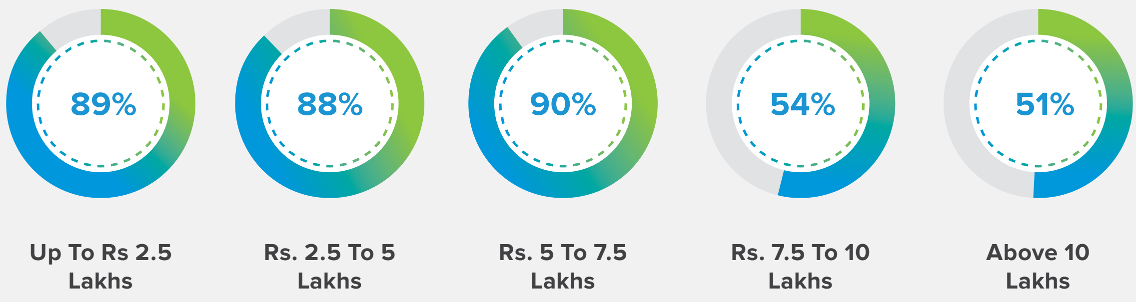
Household Income has been strongly associated with Insurance purchase behaviors as affordability of the premium is one of the major factors influencing the life insurance demand

Figure 2.6 Mortality Protection Gap Across Different Income Levels – Urban



From the figure 2.6, it can be observed that the protection gap is elevated at 94% among the lower income segments while it is 75% among the middle-income segments in urban areas. The protection is at 40% among the higher income group in annual income more than 10 Lakhs. A noteworthy characteristic of this segment is their higher educational attainment, often holding post-graduate and professional qualifications, and correspondingly, they display an elevated level of insurance awareness.

Figure 2.7 Mortality Protection Gap Across Income Levels - Rural

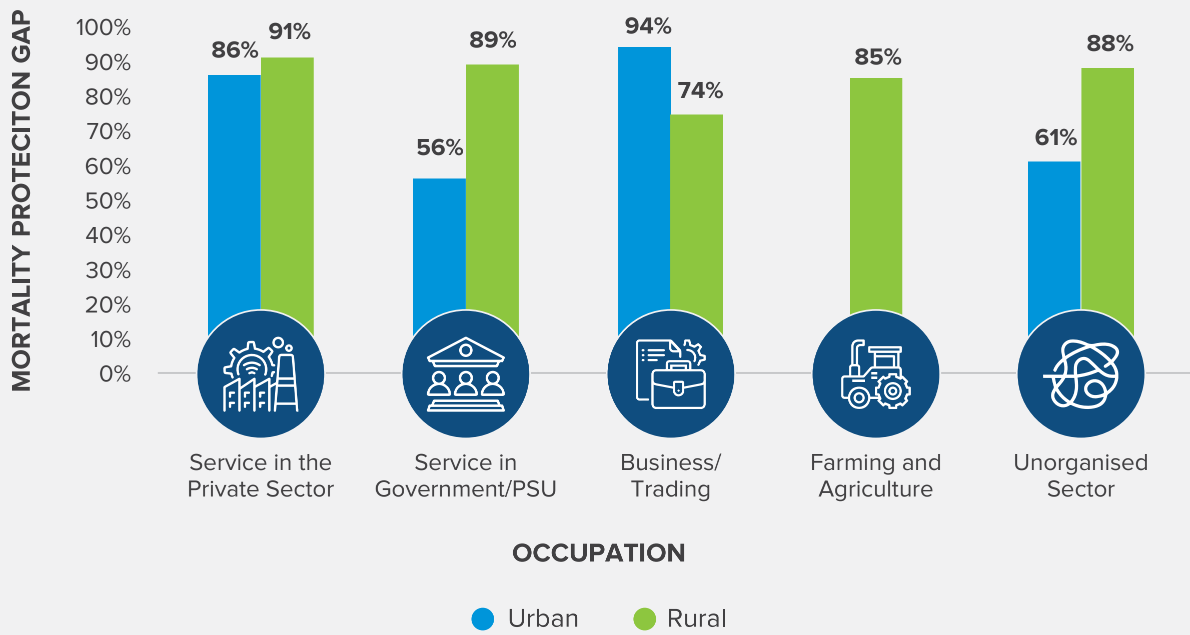


Similar trends have been observed among the rural segment across different levels of income 1 lakh to Rs.7.5 lakhs, face a substantial protection gap over 90%. This demographic tends to exhibit a lower level of awareness regarding their insurance needs. While the higher income people with the annual income above Rs.7.5 lakhs have low protection gap of 51 to 54 percent.

2.3.5 Mortality Protection Gap Across Different Occupations

Mortality risk exposures are highly correlated with the type of occupation where the employee is working. As the workplace hazard exposures significantly affect the quality of the work life of the employees. Life insurers consider this factor as one of the important factors while underwriting the risk.

Figure 2.8 Mortality Protection Gap Across Different Occupations - Urban and Rural



The above figure 2.8 indicates that people working in private sector, business, farming and agriculture have a higher protection gap of 85 to 94 percent. In contrast, the protection gap appears notably reduced, at 56%, among individuals employed in government and public sector undertakings (PSUs). This can be attributed to the extensive coverage provided by group insurance and retirement benefit schemes offered by their respective employers.

However, it's important to highlight that the protection gap remains elevated across all categories in rural areas. This indicates a pressing need for targeted initiatives to enhance insurance awareness and coverage in these regions.

Individuals working in the private insurance companies are expected to be highly educated with an average annual income exceeding Rs. 10 lakhs. It is also correlated with this segment's higher insurance awareness level. However, it is noteworthy that, approximately 65% of individuals contend with a protection gap of exceeding 90%.

The observed pattern indicates a considerable portion of the population, spanning various occupational categories and income strata, faces a notable protection gap. This underscores the imperative need to initiate comprehensive awareness campaigns aimed at educating the population on the significance of protecting the life with sufficient coverage. Nonetheless, there remains an unmet need for further efforts to enhance insurance penetration across diverse segments of the population, including the self-employed. A substantial portion of India's populace presently operates without the security of insurance coverage. Nearly 60% to 70% of individuals in India remain uninsured. While we observe 30% insured individuals, it's notable that they are working in private and or government sectors. This indicates that the insurance penetration is low among the self-employed people working in unorganized sector which accounts for over 40% of the working population.

2.4 Insurance Awareness Levels among Different Demographic Segments:

Insurance awareness and affordability of the premium are two primary factors contributing to lower insurance penetration and higher protection gap. Hence, it is essential to identify whether the level of awareness and the perceived importance or benefits of life insurance products vary among different demographic segments including age groups, gender, occupational groups, and income levels across different regions such as Metro cities, Tier-2 and 3 cities, and rural areas.

2.4.1 Life Insurance Awareness among Different Gender:

Male customers working in different occupations are exposed to various life-threatening hazards and perils. Hence, they are expected to have higher life insurance awareness than female customers.

Figure 2.9 Gender-wise Understanding of Life Insurance Products among Insured

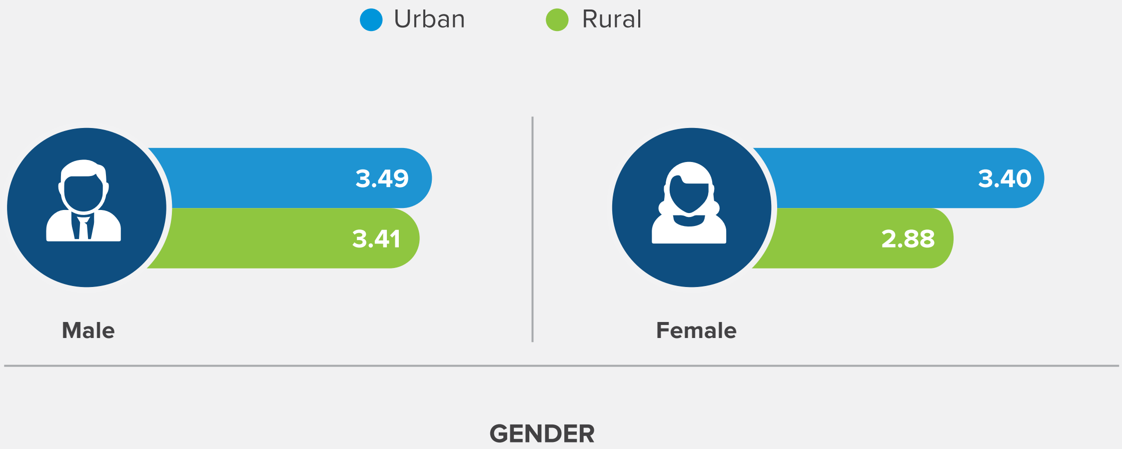


Figure 2.9 confirms that male customers have better awareness, with mean ratings of 3.49 in urban areas and 3.41 in rural areas. Concurrently, female customers have comparatively lower awareness levels, with ratings of 3.40 in urban and 2.88 in rural areas. Though male customers have relatively higher awareness levels, it is not up to the mark. This suggests that insurers and intermediaries need to enhance publicity and promotional activities in urban and rural areas.

2.4.2 Life Insurance Awareness among Different Age Groups

An individual's age is a vital factor in life insurance underwriting and in determining the premium rates. The person's mortality is also strongly correlated with the age factor. Hence, it is essential to analyze life insurance awareness across different age groups.

Figure 2.10 Age Wise Understanding of Life Insurance Products among Insured

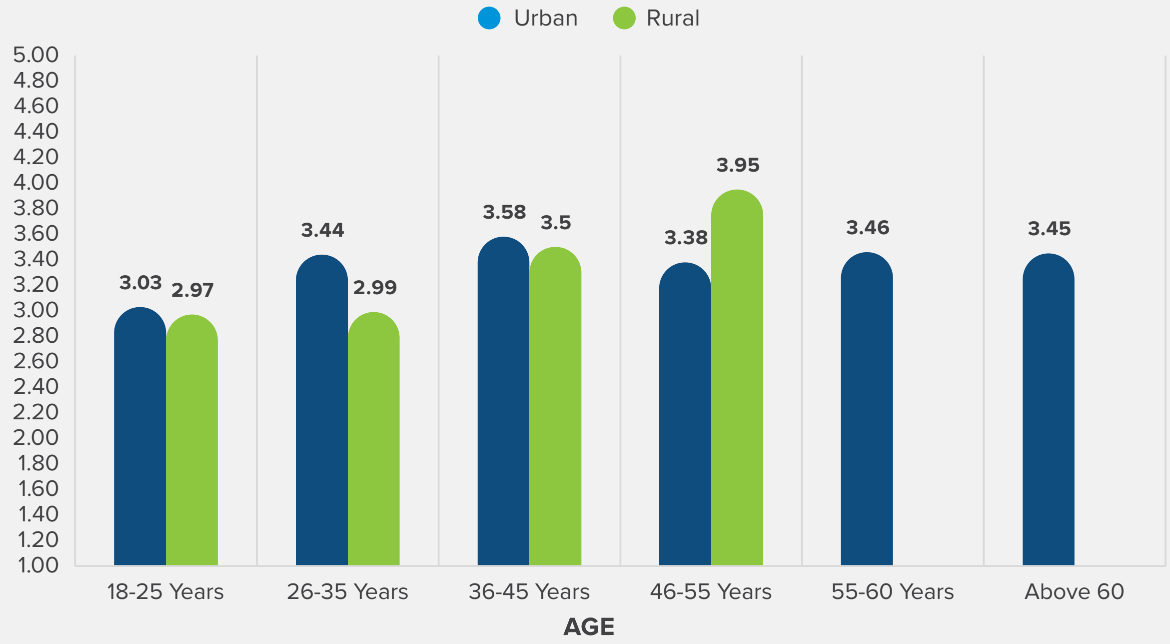


Figure 2.10 displays that insurance awareness level varies significantly across different age groups. Customers between the ages of 26 years to 35 years have comparatively lower insurance awareness with a mean rating of 3.44 (maximum value is 5.00) in urban areas while it is 2.99 in the rural areas. Notably, their awareness ratings are markedly deficient, a concerning issue given that a substantial proportion of these young customers hold graduate degrees and boast average annual incomes ranging from Rs. 5 to 10 lakhs, particularly within urban locales. It's worth reiterating that this demographic exhibits a remarkably high mortality protection gap.

Hence, this segment is growing and constitutes about 40% of our population. Additionally, it is noteworthy that the segment has a high potential for high sum insured term insurance and other financial products.

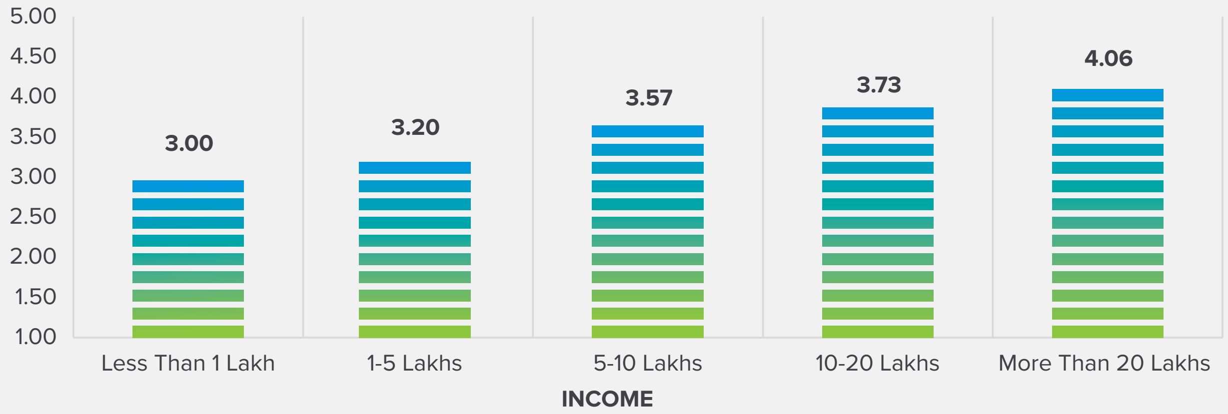
As expected, customers aged between 36 years to 45 years in urban and rural areas have comparatively higher insurance awareness levels with a mean rating of 3.58% and 3.50, respectively. Most urban customers work in the private sector with considerably higher income levels ranging between Rs. 10 lakhs to Rs. 20 lakhs. Even in rural areas, this specific age segment has higher earnings and higher family responsibilities. This segment also exudes high-potential for endowment and savings oriented insurance and annuity products.

However, surprisingly the upper middle-aged customers above 45 years in the urban areas have moderate awareness level, with ratings ranging from 3.38 to 3.45. We also observed that the segment had a higher mortality protection gap. This segment is a high-potential group with many customers' earnings range from Rs.10 to 20 lakhs and are highly educated with post-graduation and professional qualifications.

2.4.3 Life Insurance Awareness among Different Income categories:

Similarly, an individual's income is another essential factor determining the insurable interest and the coverage by the policies. Mortality protection adequacy is highly correlated with income levels. As mentioned before, the mortality protection gap reduces as the income level increases and the insurance awareness level is also expected to positively associate with income categories.

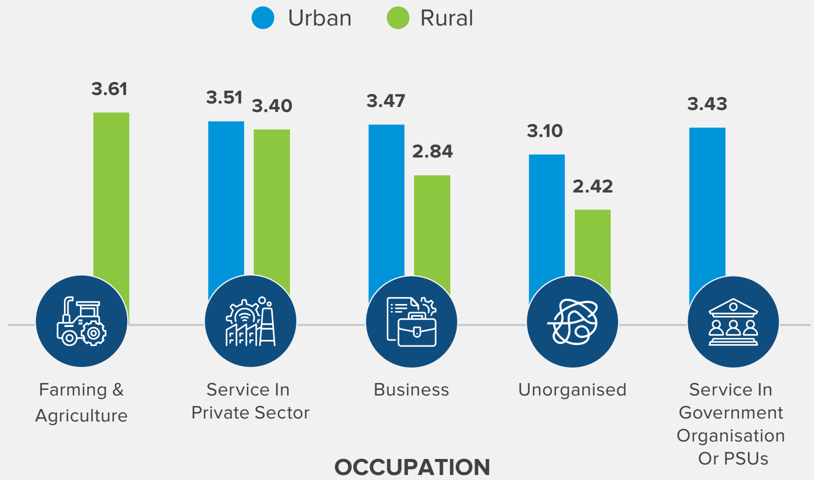
Figure 2.11 Income Wise Understanding of Life Insurance Products among Insured



Life insurance awareness is higher among the higher-income segment, with a mean rating ranging from 3.75 to 4.06, compared to the low-income and middle-income categories, which are pretty lower, around 3.00 to 3.20. As observed earlier, the protection gap is lower among the higher-income segments. It can recapitulate that awareness and positive perception of life insurance's benefits can help increase insurance penetration and reduce the protection gap across the country.

2.4.4 Life Insurance Awareness Among Different Occupation Segments:

Figure 2.12 Occupation-Wise Understanding of Life Insurance Products among Insured



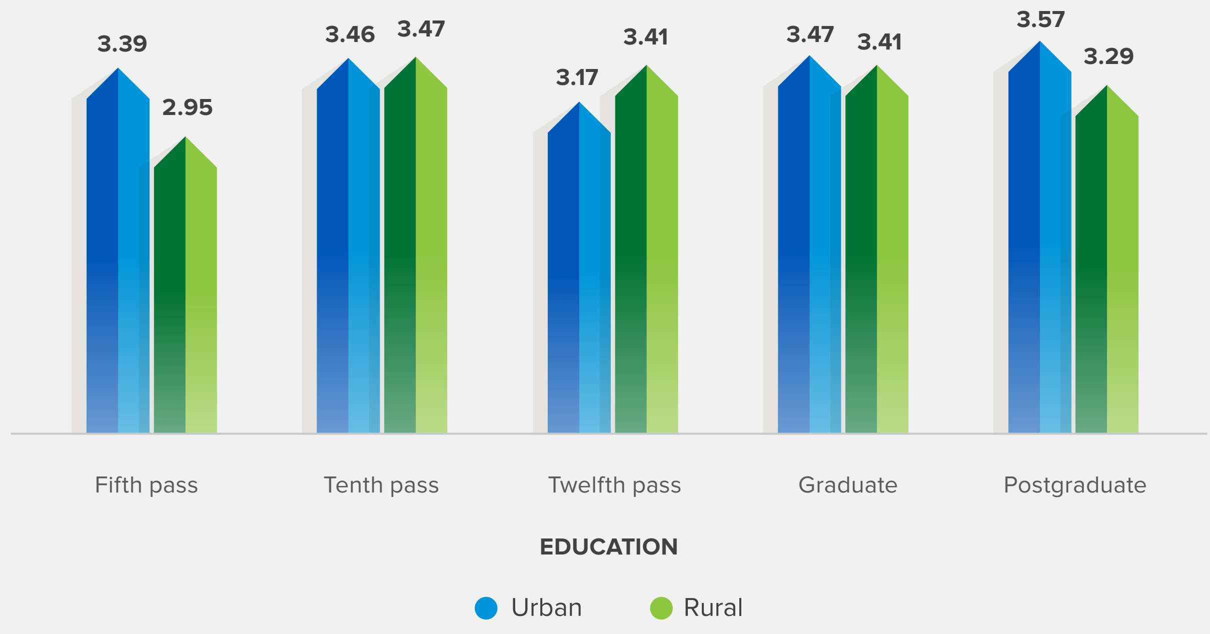
Occupation stands as a pivotal underwriting factor. Earlier observations suggest a significant protection gap among individuals employed in private and unorganized sectors, largely due to lower awareness levels.

Figure 2.12 illustrates substantial variation in awareness levels across different occupation categories. Those employed in the service sector within government and private companies exhibit notably higher awareness levels (3.51 & 3.43) compared to individuals in business and unorganized sectors. Surprisingly, even in rural areas, those in the service sector have comparatively higher awareness levels than business-oriented individuals. Notably, individuals engaged in agriculture and farming exhibit heightened awareness levels, potentially influenced by popular agricultural insurance schemes such as PMFBY. This underscores the necessity to educate those working in the private and unorganized sectors about the importance of life insurance, particularly in ensuring adequate protection.

2.4.5 Life Insurance Awareness among Different Education Levels

It is expected that people with higher educational levels, particularly post-graduation and professional qualifications, will demonstrate a greater awareness of insurance.

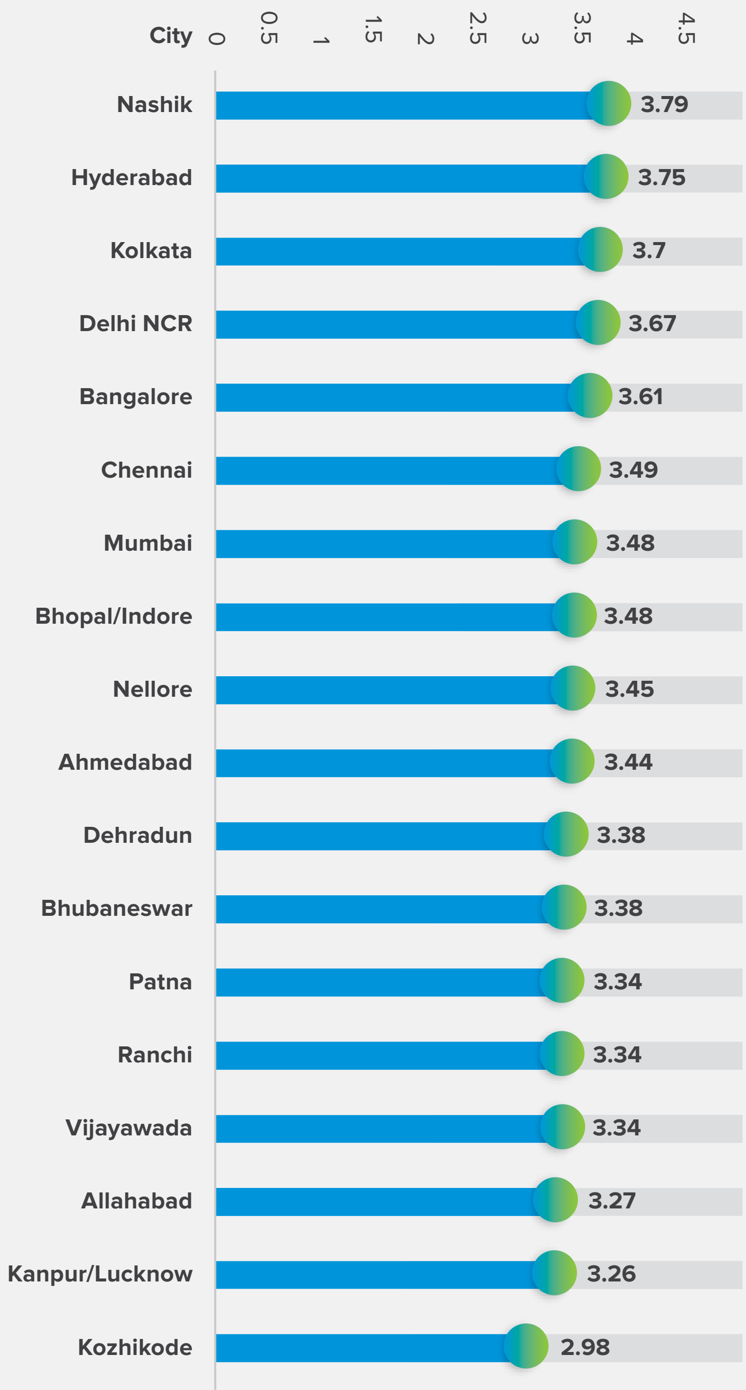
Figure 2.13 Education Wise Understanding of Life Insurance Products among Insured



As can be seen from figure 2.13 the insurance awareness level is almost similar, with moderate ratings of 3.41 to 3.47 across the different educational categories. At the same time, in urban areas, those with post-graduate and advanced qualifications have a slightly higher awareness level of 3.57, though not significantly higher as expected. However, it is almost similar across all educational categories in the rural areas. Given the generally low insurance awareness in all academic categories across urban and rural areas, a broad awareness campaign using comprehensive multimedia plan is required for all customer segments.

2.4.6 Life Insurance Awareness among Cities, Metros, and Rural Areas:

Figure 2.14 Life Insurance Awareness among different Cities of Urban Population



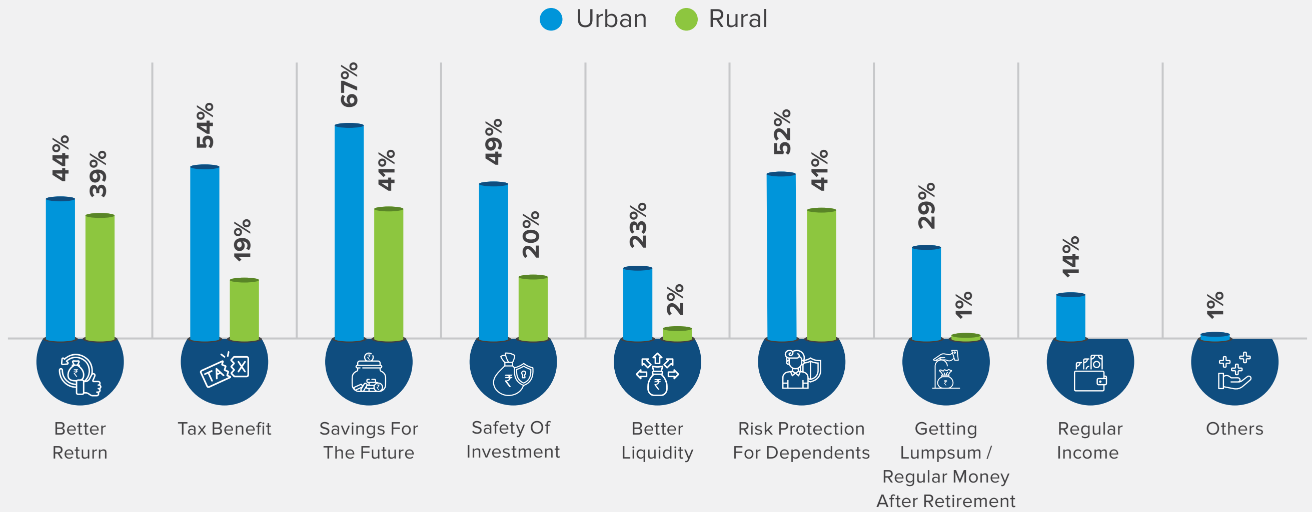
People from different regions, especially urban areas like metro cities and state capitals, may have higher insurance awareness levels. Similarly, people from the Southern and Western regions are expected to have a higher understanding than those in the Northern and Eastern regions.

The analysis in figure 2.14 reveals that urban dwellers, particularly in metro cities, demonstrate higher awareness levels. Notably, Western (Mumbai, Nashik) and Southern (Hyderabad, Bangalore & Chennai) regions outshine Northern (except Delhi) and Eastern regions in terms of awareness. This discrepancy may be attributed to a concentration of young, educated individuals attracted by IT and business opportunities in cities like Mumbai, Nashik, Chennai, Bangalore and Hyderabad.

2.5 Major Reasons for Purchasing Life Insurance:

The main objective of life insurance is to safeguard the household's primary earner, guaranteeing a sustained quality of life for the family even in the absence of the primary earner. It has been observed from analysis that the majority of the customers (67%) in urban as well as rural (41%) still perceive life insurance as a financial product. As a result, the major reasons for buying life insurance are savings for the future, seeking tax benefits, anticipating higher returns and ensuring safety. This could probably be one of the major reasons for the higher protection gap in life insurance. As most of the financial products, including ULIPs, are short term (3 to 5 years) and the endowment and money-back policies generally span an average term of up to 15 years. This can be corroborated with our earlier findings that people aged 36-45 years still have a higher protection gap of 88% in urban and 92% in rural areas.

Figure 2.15 Reasons for Buying Life Insurance



It is also interesting to see from figure 2.15 that nearly 52% of urban and 42 % of rural customers have perceived the risk protection of their family and dependents as the major reason for buying life insurance. Most of these customers are employed in both private and government sectors, possessing higher educational qualifications, primarily post-graduates and professionals, and enjoy relatively higher income levels, ranging from Rs. 10 to 20 lakhs annually and beyond Rs. 20 lakhs.

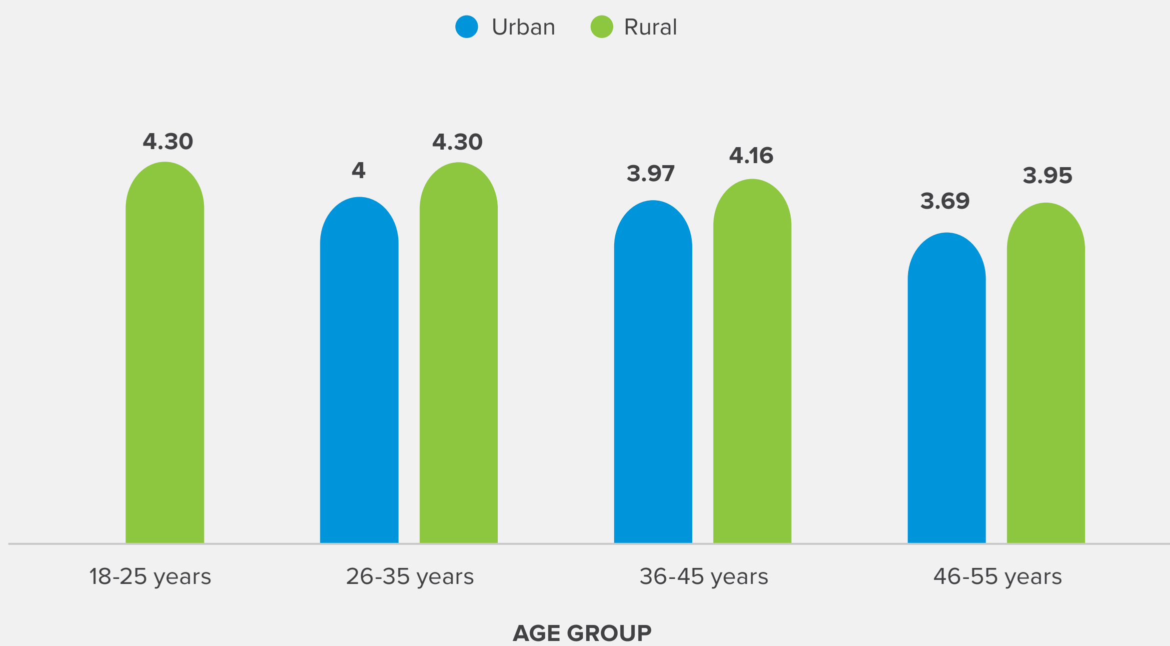
2.6 Perception of Coverage (Sum Insured) Adequacy:

A key factor contributing to the mortality protection gap is the 'inadequacy of sum insured' in policies purchased by customers. In advanced markets such as the USA, UK, and Japan, policy adequacy is often correlated with 4 to 5 times the annual income of the customers. In developing markets like India, the coverage adequacy of life insurance policies is generally equated to 10 times the policyholders' annual Income. Hence, we wanted to evaluate the policy coverage adequacy as perceived by the policyholders in terms of High, Medium, and Low on a scale of 1 to 5.

2.6.1 Age wise Perception of Risk Protection Adequacy

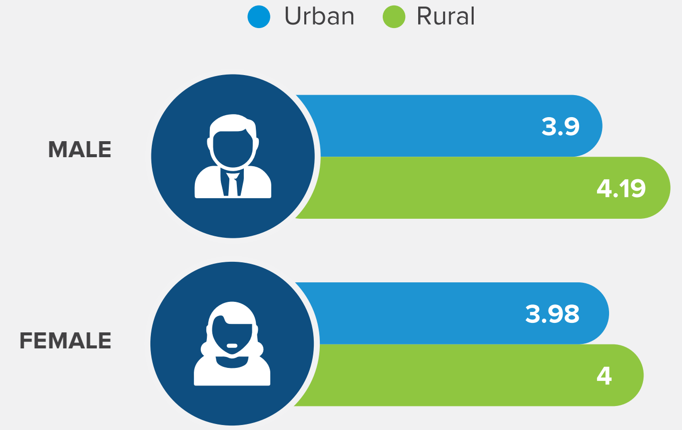
The analysis indicates that the majority of the policyholders have perceived that their policy coverage or sum insured is adequate. However, their perception seems to vary across different customer demographic segments.

Figure 2.16 Age-Wise Perception of Adequacy of Current Risk Protection



Young (26 to 35) and middle-aged (36 to 45) customers perceive that their policy coverage is adequate, with a mean rating 4.00. At the same time, the upper middle-aged (46 to 55 years) and above 55 years customer segment perceive that their risk protection coverage is quite moderate, with an average rating of 3.67.

Figure 2.17 Gender- Perception of Adequacy of Current Risk Protection

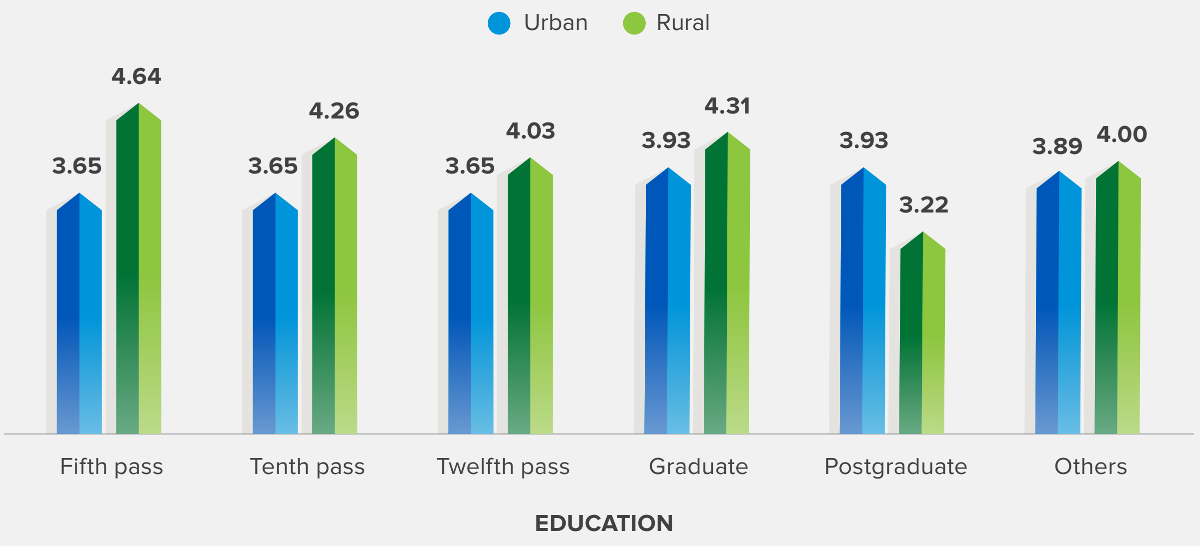


Many female policyholders perceive that the coverage or sum insured of their policy is adequate in protecting their risks in emergencies as their mean rating is close to 4.00. In contrast, males perceive it comparatively lower, with an average rating of 3.90. While in rural areas, woman perceives comparatively lower protection adequacy than male customers.

2.6.2 Risk Protection Adequacy Across Different Educational Qualifications and Levels of Income:

The perception of risk protection adequacy seems to vary across different educational qualifications and levels of Income. The customers with higher academic qualifications (post-graduates and professionals) and high-income groups with annual incomes of Rs. 10 to Rs. 20 lakhs and above perceive that their risk protection coverage is adequate, with mean ratings of 3.93 to 4.00. In rural areas, customers with higher qualifications feel that risk protection adequacy is lower compared to the lower education category customers. This indicates that educated customers in rural areas understand their risk protection better.

Figure 2.18 Education Wise Perception of Adequacy of Current Risk Protection

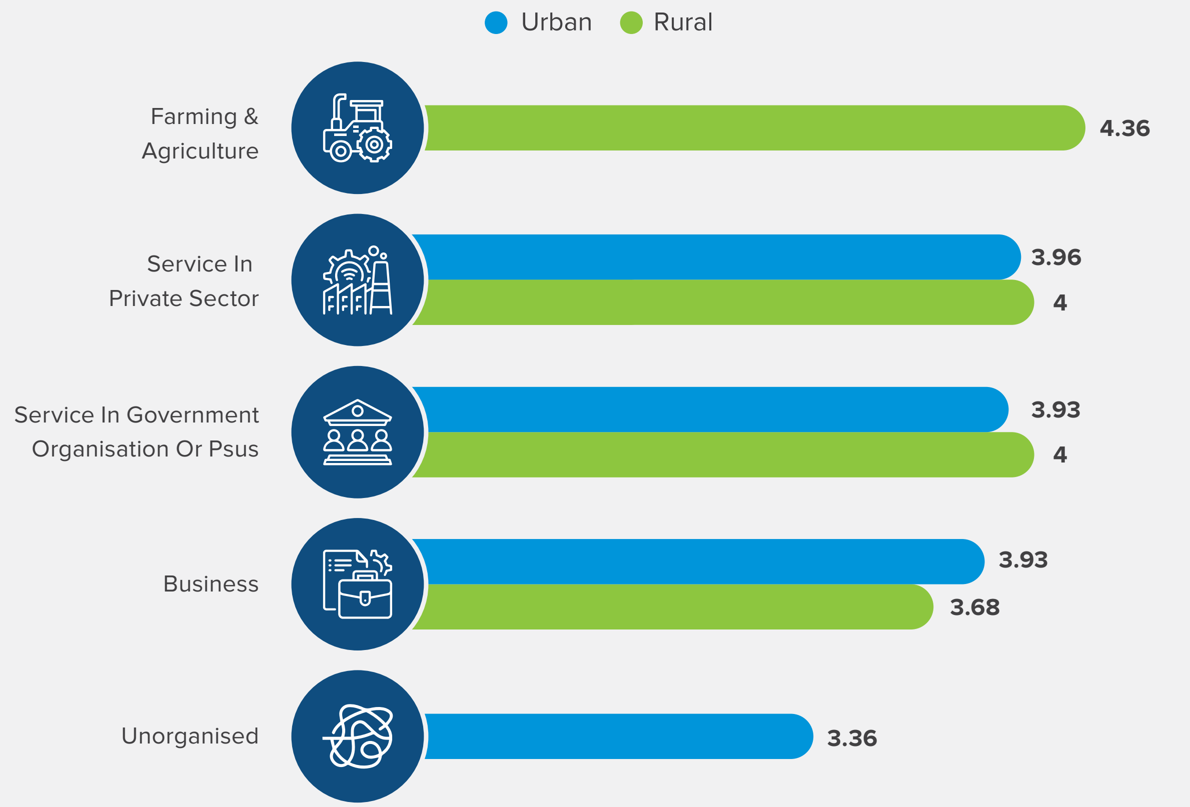


High school pass customers and Diploma holders and middle-income segments in the urban areas with an annual average income of Rs.1 to 5 lakhs and 5 to 10 lakhs perceive it to be moderate with average ratings of 3.65 to 3.89. This indicates that the low- and middle-income segment with HSC Pass or graduate qualification perceives the importance of adequate risk protection for their family. With extensive education on the significance of protection adequacy, insurers can tap this segment for further insurance coverage.

2.6.3 Occupation-wise Perception about Risk Protection Adequacy:

The analysis indicates that the policyholders working in government and private organizations perceive that they have comparatively higher risk protection coverage with a mean rating close to 4.00. This could be because many companies in the organized sector and the PSU companies cover their employees with group insurance, personal accident, and pension. Hence, they perceive that their insurance coverage is adequate. **However, the protection gap in this sector, especially in the private sector, is significantly higher, with 88% in urban and 92% in rural areas.** Hence, insurers and intermediaries need to educate people working in the organized private sector as well as the unorganized sectors about the importance of risk protection adequacy.

Figure 2.19 Occupation-Wise Perception of Adequacy of Current Risk Protection



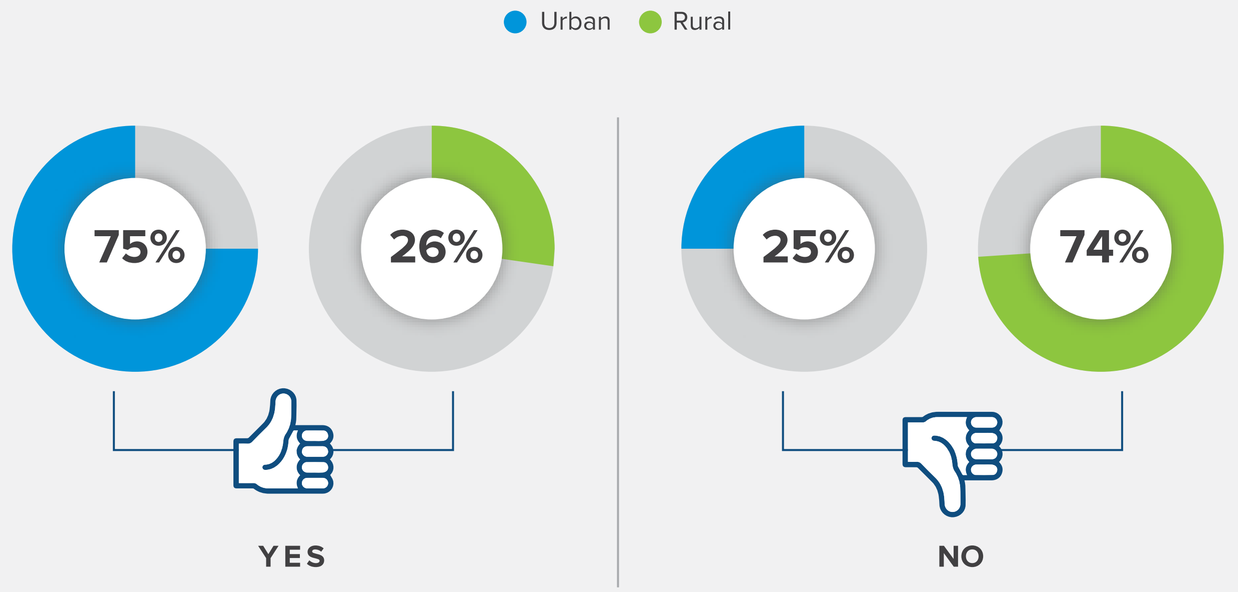
Most are in the higher income category with an average annual income of Rs.10 to 20 lakhs and above with higher educational qualifications. While the policyholders working in the government sector who have their own businesses perceive it slightly lower, with an average rating of 3.93. The people working in the unorganized sector perceive that they have lower risk protection coverage, with an average rating of 3.36. Notably, the people working in the unorganized sector perceive their job insecurity, have irregular income and are not covered under any social security scheme or employer retirement benefits scheme. Hence, they perceive the importance of adequate risk protection coverage.

2.6.4 Overall Perception about the Risk Protection Adequacy and Need for Increasing the Coverage:

The analysis indicates that nearly 75% of the policyholders have perceived that their coverage or sum insured needs to be enhanced further. The substantial mortality protection gap within customer demographics presents a significant business opportunity for life insurers to expand their market share among existing clients. Notably, urban dwellers express a greater inclination to increase their sum insured compared to rural customers. There is a need to educate rural customers about the significance of life insurance coverage to protect their dependents' quality of life.

Secondly, the low-ticket size products through micro-segment can be structured along the lines of PMJJBY or PMSBY, marketed through the bancassurance (Jan Dhan model).

Figure 2.20 Willingness to Increase Insurance Coverage

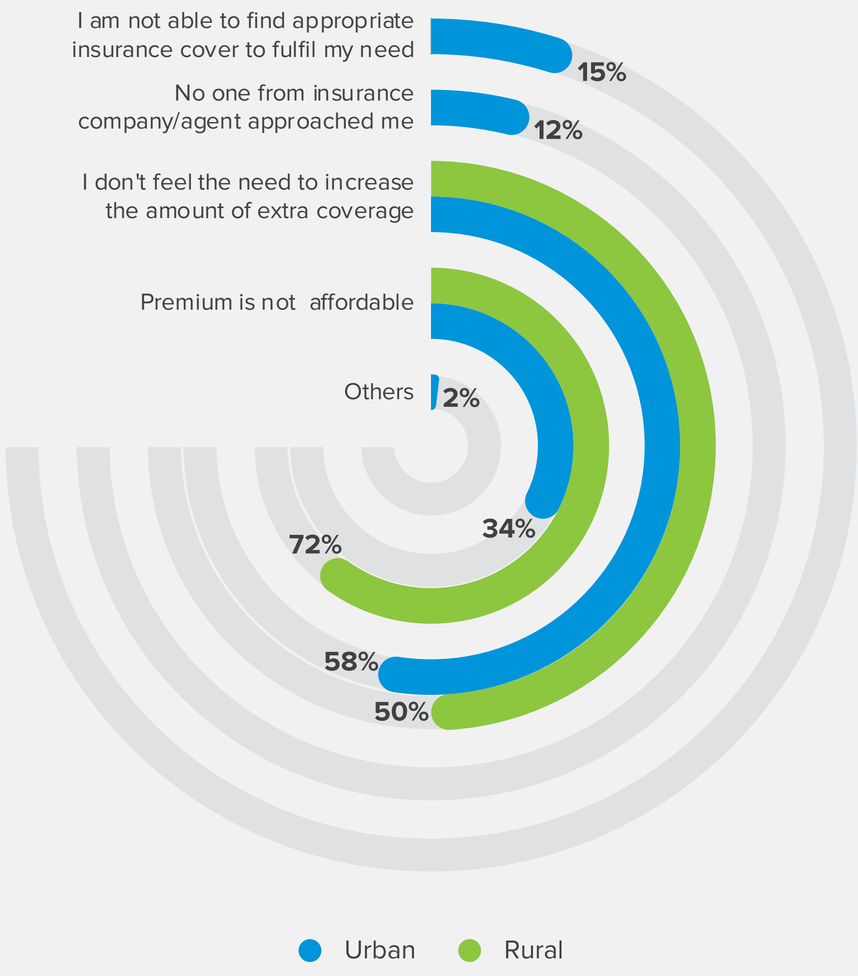


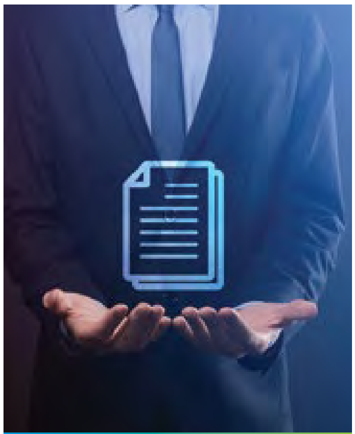
The main reasons for such an increase in coverage could be rising inflation and financial market crises. The frequency of pandemics and natural catastrophic risks due to climate risk are also the contributory factors.

2.7 Reasons for Not Enhancing the Policy Coverage (Sum Insured):

Though most policyholders stated that their coverage needs to be further enhanced, 25% of the customers in the urban area still perceive that they have adequate risk protection covers. and need not require any additional coverage. However, it would be interesting to understand the major reasons for not enhancing their policy coverage.

Figure 2.21 Reasons for Not Increasing the Insurance Coverage



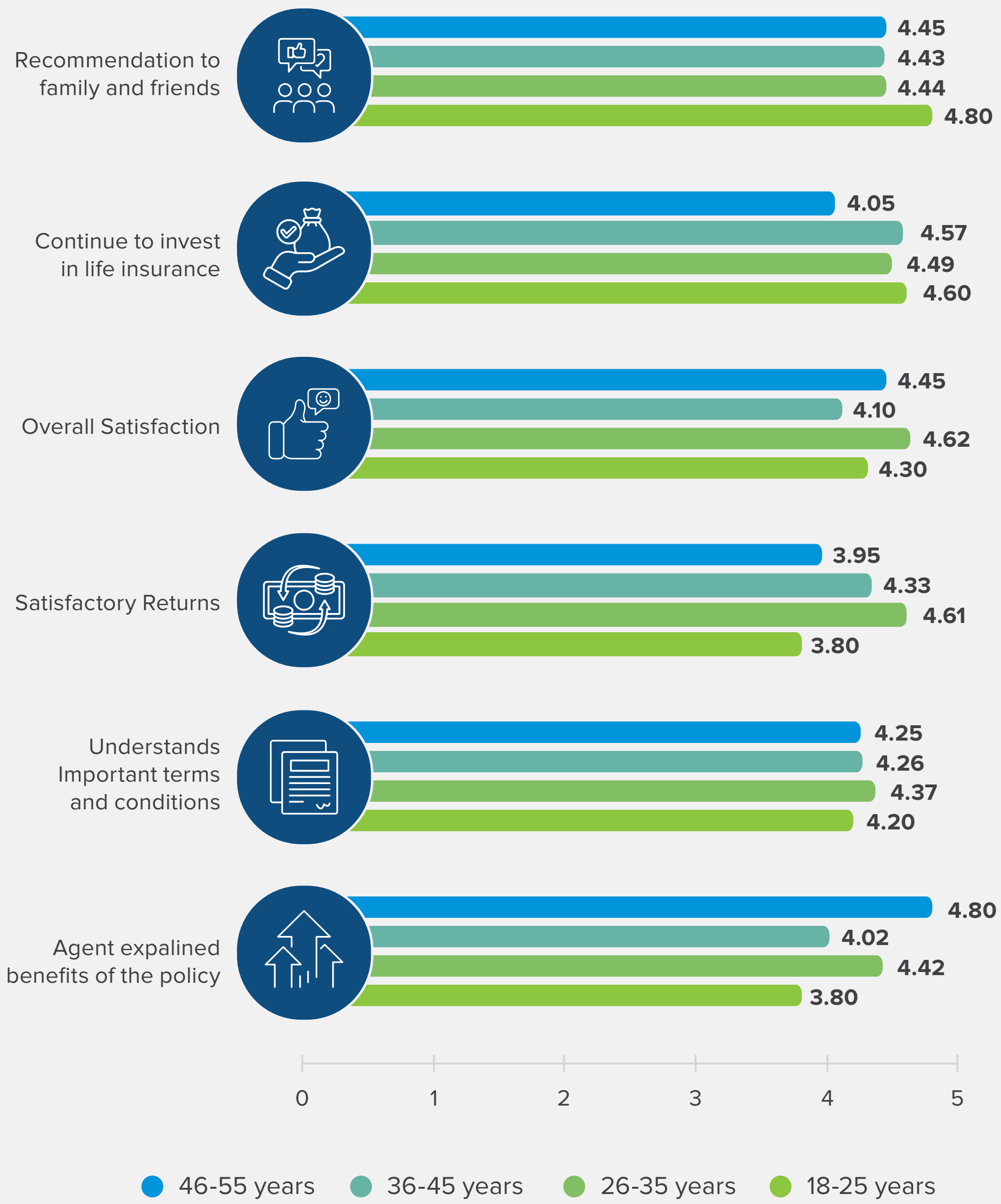


A key hindrance to improving protection adequacy is largely financial constraints, with many finding life insurance premiums prohibitively high. Another important factor is the perception that existing investments in financial products like mutual funds and equities negate the need for increased life insurance coverage. Some also view life insurance as a long-term investment with low returns. Additionally, some individuals struggle to find suitable insurance products that align with their needs, while others feel unconnected by insurance companies in terms of coverage enhancement.

2.8 Perception about Life Insurance Policy Services:

Life insurance operates as a long-term contract, underscoring the critical need to establish trust among policyholders. It is imperative for insurance companies to prioritize policyholders' well-being, ensuring timely and hassle-free settlement of their final claims (Maturity/Death claims). This section deals with the policyholder's perception of claim settlement, satisfaction with the policy they have purchased, and future purchase behaviors.

Figure 2.22 Age-wise Perception of Life Insurance Policy Services



The figure 2.22 shows that the majority of the middle-aged customers (36 to 45 years) working with the private companies and government sector with higher educational qualifications (post-graduate and professional qualifications) drawing an annual salary of Rs. 11 lakhs to 20 lakhs are happy with their existing life insurance policy. They perceive that their needs are significantly met and are pleased with returns on their investment. They expressed a desire to purchase additional life insurance to guarantee adequate coverage or sum insured.

Similarly, young individuals (26 to 35 years) also have positive perceptions about their existing policy, and the mean ratings are around 4.00 for most of the factors mentioned above.

Female policyholders have provided comparatively higher ratings (4.10 to 4.30) about the benefits compared to male policyholders. Also, business owners have an overall positive perception, with mean ratings around 4.00 to 4.30.

The positive perceptions among various demographic segments, especially younger customers and business owners, could facilitate life insurers in expanding their business and ensuring protection adequacy.

2.9 Key Findings of the Study and Suggestions:

2.9.1

A Higher protection gap of 87% provides a huge business opportunity for life insurers in India. it can provide an enormous business opportunity of US$106.8 billion (Swiss Re,2021) in (annual) premium volume by 2030. This makes it imperative for the insurers to break out the total protection gap values across different age groups, Income, and occupational segments to identify the high-potential demographic segments and develop a suitable marketing strategy to tap the business potentials, as suggested in our report.

2.9.2

MPG analysis across different age groups indicates that the primary life insurance segment of the **younger age group of 26-35 years has a higher protection gap of over 90%.** It has further been observed that the insurance awareness level is also quite lower in this segment. This segment wants to build assets and savings for the future. Insurers can attract them with bundling of savings products with risk protection covers. This segment is tech-savvy and can be tapped through direct and online channels. Hence, attractive marketing campaigns creating awareness and realizing the importance of adequate protection would help insurers get substantial business from this segment.

2.9.3

The **middle-aged customer segment 36-45 years** also has a significant protection gap as we can find that about **59% of this segment have a higher protection gap of over 90%. Another 31% have a reasonably moderate protection gap ranging from 60% to 80%.** Middle-aged customers probably understand the importance of adequate risk protection. They are also highly focused on building other financial investments required to care for their family if the breadwinner dies prematurely. Designing risk protection with riders, including critical illness, enhanced coverage, and annuity products, would help attract this segment.

2.9.4

Many male policyholders (80%) have a significant protection gap of over 90%, particularly those in the lower-income category, and their awareness level is also relatively low. The low-income segment can be covered through micro insurance & social security schemes like PMJJBY, Jan Dhan Yojana, etc. Female customers do also have a higher protection gap, and they can be attracted through family protection cover with savings products.

2.9.5

Nearly **70% to 80% of middle-income households with an average annual income of Rs.5 lakhs to 10 lakhs have a protection gap of over 90%,** and their awareness level is also relatively low. Middle-income segment can be tapped through Savings and Investment products. Term insurance cover can also be bundled with attractive savings and investment schemes to attract this middle-income segment.

2.9.6

While 25% of customers in the annual Income of 11 lakhs to 20 lakhs have a higher protection gap of 90%, most (65%) have a protection gap of **60% to 90%.** Most people in this segment have higher education – post-graduate and professional qualification and their insurance awareness level is also better. Insurers need to attract this high-income segment with high-value term insurance bundled with wellness Insurance plans. Insurers can collaborate with Health-InsurTech companies and provide complementary wellness services to high-value customers.

2.9.7

Many people **(78%) in Own Business and other occupation categories have a higher protection gap of over 90%, and the majority** have comparatively lower annual Income and low awareness levels. **Many in the unorganized sector also have a significantly large protection gap of over 90%.** This segment is essential regarding insurance potential, particularly pure risk and annuity products. They must be educated about protection adequacy and rigorous marketing push with engaging awareness campaigns to increase insurance penetration. These segments can be covered through micro-insurance and social security insurance schemes.

2.9.8

Younger customers (26-35 years) have comparatively lower insurance awareness, with a mean rating of 3.44 in Urban and 2.99 in rural areas (maximum value is 5.00). Many of these young customers are graduates with an average annual income of Rs.5 to 10 lakhs. We had also seen that this group's mortality protection gap is very high. Hence, this segment is growing and constitutes about 40% of our population. This segment holds substantial potential for high-sum insured term insurance products combined with investments. Accessing this market can be achieved through various channels, including digital platforms, which resonate with many young professionals. However, some customers may still seek guidance from agents or wealth managers. To reach them effectively, simplified, pre-underwritten products with clear purchasing options and targeted marketing can be offered.

2.9.9

Most middle-aged (36 to 45 years) customers have a moderate awareness level among the insured, with a mean rating of 3.58% in urban and 3.50 in rural areas. But this rating is also lower than the expected rating of 4.00 to 5.00. **Most of this segment works in the private sector with considerably better income levels between Rs. 5 to Rs. 10 lakhs and Rs. 10 to 20 lakhs.** This segment also has high potential in affordability and insurance requirements, notably savings-linked insurance and annuity products.

2.9.10

The **upper middle-aged (Above 45 years) customers have a reasonably better awareness level, with ratings of 3.95 in urban and 3.38 in rural areas.** This segment had the higher mortality protection gap. This segment is also a high-potential group where many customers have higher annual Incomes of Rs.10 to 20 lakhs and are highly educated with post-graduation and professional qualifications.

2.9.11

People working in **Government and private sectors have comparatively better awareness levels** (3.51 & 3.47). In contrast respondents from the **unorganized sector and business owners have comparatively lower awareness** (3.47 & 2.84), and their protection gap is comparatively higher. Apart from lower awareness, affordability is also a major reason for the high

protection gap. Their risks & exposure also vary from the people in the organized sector. Hence, insurers need to customize the policies under the group insurance scheme with a minimum sum insured and lower premium rates in line with PMJJBY and PMJAY. They can be reached through the JANDHAN accounts via the Banc-assurance model.

2.9.12

Majority of the respondents living in **Metro and A-class cities have comparatively better awareness levels.** Secondly, people from **the Southern and Western regions also have better awareness levels** as compared to the Northern and Eastern regions. The recent developments in IT & other Industrial sectors could have contributed to the improved awareness. Insurers can focus on customized bundled covers with added health and annuity covers. While, people working in organized sectors can be covered through employee benefit schemes.

2.9.13

Most customers (67%) still perceive Life Insurance as an Investment product. The primary reasons for buying life insurance are savings for the future, tax benefits with the expectation of higher return, and safety. Number of people taking mortality protection coverage is quite low, and their coverage is also highly inadequate. This could probably be one of the primary reasons for the higher protection gap in life insurance.

2.9.14

Most policyholders have perceived that their coverage or sum insured is adequate. However, their perception seems to vary across different customer demographic segments. **The Young (25 to 34 years) and middle-aged (35 to 45 years) customers wrongly perceive that their policy coverage** is adequate, with a mean rating of 4.00, and their awareness level is also quite low. At the same time, the **upper middle-aged (45 to 55 years) and above 55 years segment perceive that their risk protection coverage is relatively moderate,** with an average rating of 3.80. This suggests that the younger segment needs to be educated about the importance of adequate risk protection while the middle and upper-aged customers can be targeted through a special marketing campaign for additional insurance coverage with added benefit covers.

2.9.15

It is interesting to note that **people from the Private and Government sectors perceive that the coverage or sum insured of their policy is adequate in covering the risk protection in emergencies as their mean rating is close to 4.00.** The main reason could be many from the organized sector are generally covered under employee benefit schemes. Also, People from unorganized and business owners perceive their protection adequacy is low.

2.9.16

Customers with higher educational qualifications (post-graduates and professionals) and high-income groups with annual incomes of Rs. 10 to 20 lakhs and above perceive that their risk protection coverage is adequate with mean ratings close to 3.93 to 4.00. Insurers need to educate them about the importance of adequate risk protection and offer higher-value products bundled with medical insurance, annuity covers and complimentary wellness insurance in order to attract them.

2.9.17

High school passed customers and diploma holders as well as middle-income segments with an annual average income of Rs. 1 to 5 lakhs and Rs. 5 to 10 lakhs perceive their coverage to be moderate, with average ratings of 3.65 to 3.89. This indicates that the low- and middle-income segment with HSC Pass or graduate qualification perceives the importance of adequate risk protection for their family. With extensive education on the significance of protection adequacy. Insurers can tap this segment for further insurance coverage. They can be attracted by simple pre-underwritten term and savings products with lower premium rates.

2.9.18

The policyholders working in private organizations perceive that they have comparatively higher risk protection coverage. Most are in the higher income category with an average annual income of Rs. 10 to 20 lakhs and above with higher educational qualifications. This is a high insurance potential group, and insurers need to develop a suitable policy like Variable Annuity with market-linked inflation or products with higher returns that would attract this segment.

2.9.19

The people working in the unorganized sector perceive that they have lower risk protection coverage, with an average rating of 3.36. People working in the unorganized sector perceive their job insecurity & do not have regular Income. They are not covered under any social security scheme or employee retirement benefit scheme. Hence, they perceive the importance of adequate risk protection coverage.

2.9.20

The majority of the policyholders, nearly 75%, have perceived that their policy coverage or sum insured needs to be enhanced further. Notably, the mortality protection gap across the customer demographic segments was estimated to be very high. The main reasons for such an increase in coverage are rising inflation, global financial market crises, sporadic pandemics, and catastrophic natural risks due to climate risk.

2.10 Conclusion and Way Forward:

It can be concluded that though **the insurance business has been growing at the rate of 10% to 14% over the last five years, the life insurance penetration is quite low at 3.2% with a density of $69 compared to global insurance penetration.** This indicates that there is a huge Protection Gap across different segments, as the study has pointed out. **A mortality protection gap of 80% to 90% has been witnessed across different segments including younger age groups, low- and middle-income categories along with people working in private and unorganized sectors.** The study also finds that the insurance awareness level and risk protection adequately is also quite low in almost all the segments. **Higher protection gap across different socio economic and demographic segments suggests that even the educated and higher income people do not understand the value of protection need and many underestimate it.** The table below summarizes the key segments with higher protection gaps and low protection adequacy, which the insurers can examine and develop suitable marketing strategies to target.

	26 - 35	36 - 45	Above 45
MPG	> 90%	80% to 90%	60% to 80%
Income	5 - 10 Lakhs	10 - 20 Lakhs	10 - 20, Above 20 Lakhs
Education	54% Graduates 12% Professionals	51% Graduates 17% Professionals	54% Graduates 27% Professionals
Occupation	65% Unorganized Sector	24% Private Sector and Business	12% Government and Private Sector
Protection Adequacy	Low	Medium	High
Awareness	3.20	3.97	3.69
Perception	4.00	4.18	3.80

The above analysis indicates that many people with higher protection gaps are predominately aged 26 to 35 years and 36 to 45 years. Most of them perceive risk protection as inadequate and want to insure for a higher sum in the coming years. Insurers attract them through high-value products with value addition through health and annuity products. More importantly, they need to be educated about the importance of life insurance and the need to protect their family adequately, which would help ensure their family lives a better standard of living without the breadwinners.

The low-income segments require a simple product with low premium rates. For this segment, A standardized term product with savings options will provide value to them. As the awareness level of this segment is quite low.

Insurers develop a simple communication strategy explaining the value proposition and provide seamless claims settlement. With the help of technology, it may be worthwhile to automate their claims, which would create better trust.

Embedded insurance coverage through property loans or bank credits. Bundle the insurance service with family protection elements like child education, marriage endowment, health insurance, and pension & annuity.

Promote the bancassurance business through the right product and service support to attract bank customers. Insurers need to develop seamless technological support through integrating the core insurance solution with the banking system.

As insurance selling is the toughest and requires multiple sitting with the customers, the intermediaries, particularly agents, agency managers, and brokers, need to be educated about the importance of financial planning through need analysis and effective prospecting. Their customer understanding can be supported through the necessary lead analysis and market intelligence. They need to be developed into highly successful insurance and or financial professionals, enhancing their productivity and service support to the customers.

Insurers need to support the customers with premium financing options through bank credits with EMI options. This would encourage low-income and people from micro and unorganized sectors to come forward to take adequate risk protection, critical illness, and pension products to ensure that the quality of living standards of their family is well protected.

- Insurers need to promote wellness as a value proposition among the higher income segments.
- As maintaining good health becomes serious concern among the middle-aged people particularly 36-45 years, life insurance with critical illness rider can be promoted among them.
- Penetration among the female household is quite low and hence the gender diversity becomes the important board agenda under ESG compliance for the corporates exclusive protection cover for women need to be developed.

Ensuring quality standard of living during the post retirement period become the primary concern for middle and old aged people, suitable term insurance plan with annuity rider and long-term health benefits may be developed.

3. PENSION AND ANNUITY

3.1 Introduction:

The increase in longevity, declining fertility, and reduced mortality rates are poised to augment the elderly population. Currently, individuals aged 60 years and above constitute 8.2% of our population, and this demographic has been growing at a Compound Annual Growth Rate (CAGR) of 10%. Projections suggest that by 2050, the elderly population will double (Swiss Re, 2021) due to advancements in healthcare quality, breakthroughs in stem cell therapy, genetic engineering and the accelerated integration of technology in healthcare. People over 60 years of age are expected to account for more than 20% of the total population by 2050[1].

Life expectancy has increased to 74 years[2]. As per the WHO statistics 2020, life expectancy at age 60 years has gone up by additional 18 years[3]. Generation X (aged 40–56) is forecasted to outlive prior generations by 20–30 years, leading to a potential 40% growth by 2050[4], as per the Stanford Center for Longevity.

The longer lifespan poses a financial burden for the government, escalating pension and healthcare costs. A Ministry of Health[5] study reveals that 40% of low and middle-income individuals in India lack health or pension coverage, and over 90% lack a retirement plan to meet rising living expenses.

Approximately 63% of our workforce is engaged in the informal sector, which is highly unstructured. This segment lacks any form of pension or annuity to serve as a financial safety net during old age. As a result, they heavily depend on their children for old-age support, with only a few having financial savings to secure their retirement. However, increasing economic uncertainty, low interest rates, the escalating cost of living in urban and semi-urban areas, inflation, and projected healthcare expenses make it imperative to plan for pension and annuity products.

The growing elderly population, coupled with rising financial liabilities, imposes a substantial burden on the government, which must provide a minimum guaranteed income to elders to meet their essential requirements, including daily living and medical needs.

In developed economies, older individuals are covered by well-established social security systems, with access to high-quality healthcare facilities, including acute and long-term care. However, in developing countries like India, a significant portion (22%) of the population lives below the poverty line (BPL), facing challenging economic conditions such as unemployment, increasing inflation, a higher cost of living, underemployment, etc. In addition, many individuals from low-income and economically weaker segments of our population are not enrolled in any formal pension schemes. Although the government has recently introduced a couple of schemes, namely the Pradhan Mantri Shram Yogi Maan-dhan Yojna (PM-SYM), for unorganized workers and the 'National Pension Scheme for Traders and Self-Employed Persons (NPS-Traders)' (for the Vyaparis) under section 3(1) of Unorganized Workers Social Security Act, 2008, providing annuity payments of Rs.3,000 to eligible households, awareness, and enrollment in these schemes remain limited.

However, the defined contributory plans like NPS and the Atal Pension Yojana (APY) introduced by the central government have failed to attract a substantial number of individuals in the unorganized sector. To date, these schemes have garnered only about 51.22 million subscribers as of March 2023, covering only approximately 13% of employees from the unorganized sector, including economically weaker segments. Furthermore, the PM Sharam Yogi Maan Dhan (PMSYM) scheme also covers 4.4 million workers from the unorganized sector, resulting in pension coverage among unorganized sector workers of approximately 14.2% (It may be noted that out of the total workforce of 53.79 crores, the number of workers employed in the unorganized sector is 39.14 crores[6]).

Pension penetration in India remains low, with only 24% of the population, primarily from the organized sector, covered under employer pension schemes[7]. This penetration is notably lower when compared to other developed countries such as Japan (80%), Korea (78%), and China (74%)[8]. A World Bank study highlights that the majority of working individuals in the 50 to 60 age group lack any formal pension and retirement savings to support themselves after retirement. Most elderly individuals continue to depend on their children for financial security in their old age, with only a few having any savings to fall back on. Nevertheless, the increasing cost of living, rising cost of medical expenses, inflation, and persistently low-interest rates leave them financially vulnerable, resulting in a retirement protection gap.

[1]Swiss Re Report 2021

[2]United Nations Population Assessment (UNFPA) Report, 2023, by World Bank.

[3]WHO The Global Health Observatory Data 2020

[4]Longitudinal Ageing Study in India published by International Institute of Population Sciences.

[5]The missing middle in Health Insurance report by Niti-Aayog, Ministry of Health 2021

[6]Niti-Aayog report on Changes in Labour Force and Employees in urban and rural sectors in India, 2022

[7]World Bank Report (2019) on 'Schemes to Systems - Mind the gap: Ageing and Pension'.

[8]Organization for Economic Cooperation and Development (OECD) statistics on insurance penetration, 2019.

3.2 Pension & Annuity Protection Gap

The Pension or Annuity protection gap is measured as the **difference between the amount of income required to maintain a normal quality of life or standard of living of the household during post-retirement and the amount of accumulated savings + pension or retirement assets available currently.**

Pension need		Pension available			=	Pension Gap
Amount required to fund 65% of pre-retirement income during retirement years	–	Sum of mandatory (and voluntary) contributions	–	Return on pension funds and accumulated savings during working years	=	Pension Gap

Source: Swiss Re Institute

Swiss Re defines it as **"the difference between the sum needed to cover retirement income for the average current working population in emerging markets and the pension assets available."** This gap signifies the shortfall in funding for Pensions, posing risks to public finance and augmenting old-age poverty. Our adaptation of the formula considers the present value of future income projected at the age of 60 for individuals aged up to 55. For those between 55 and 60, we project income up to 65, assuming a potential increase in the working age.

The estimation details and assumptions are as follows:

- The pension requirement is based on the income replacement ratio (60% to 75% of the total income required at retirement), considering various factors like income level, family size, age, etc.
- We estimate the required fund value by forecasting an individual's income until retirement by considering age, family dependency, expected inflation, and economic growth
- Household debts, including mortgages and loans, are factored into the estimated fund value
- The pension protection gap is calculated by deducting the accumulated savings and the sum insured of an annuity or pension benefit from the required fund value

Assumptions:

- Projections consider the current income up to retirement age, considering employment duration, dependents, inflation rate, GDP growth, and interest rates
- An average 4% inflation rate and 6% GDP growth rate is assumed for the period from 2023 to 2052
- Once the required retirement income is estimated, current debts and projected healthcare costs are added
- Accumulated savings encompass various investments and insurance

The Pension Protection Gap is estimated as the disparity between the present value of the required fund value and the available financial resources, including the value of pensions or annuities. Our analysis covering a sample of 2,710 households—insured and uninsured—shows an overall estimated pension protection gap of 93%.

Note: The estimation excluded outliers such as unemployed, students, singles, super-rich individuals (earning over 1 crore annually), and retired people.

3.2.1 Pension Protection Gap Across Different Age Groups:

Individuals aged 18 to 25, starting their careers at 21 or 23, tend not to plan for retirement. Their focus is more on career building and immediate aspirational needs. This age group demonstrates the highest (97%) pension protection gap, with urban individuals at 96% and rural individuals at 99%.

Figure 3.1 Pension Protection Gap Across Age

The protection gap diminishes as age increases, as shown in Figure 3.1. For the middle age group (36 to 45 years), the urban protection gap is 92%, whereas it stands at 96% in rural areas. The 26 to 35 age bracket shows a 95% gap in urban areas and 97% in rural regions, highlighting a crucial segment constituting about 30% of the population.

Retirement Planning Trends:

Despite being an essential demographic for future savings, our survey indicates that a significant majority (88%) of young individuals lack retirement planning, with only 12% having a structured retirement strategy. Recommendations include NPS & APY schemes for rural youth and various pension and annuity options for urban dwellers.

Ages 46 to 55 and Beyond:

Individuals aged 46 to 55 are pivotal for retirement provision, yet they exhibit an 85% protection gap in urban and 88% in rural areas. This age group faces challenges in accumulating the substantial lump sum necessary for pension contributions.

Upper Age Category (56-60 years):

The 56 to 60 age group in urban regions displays a moderate 61% protection gap. Those in organized sectors, such as PSU and Government sectors, often have retirement benefit schemes. However, individuals working in unorganized sectors and urban traders require higher coverage through NPS/Annuity from life insurers.

3.2.2 Pension Protection Gap Across Gender:

Male workers constitute approximately 72% of our workforce and typically bear substantial family responsibilities. They expect to have more coverage under a pension or retirement benefits compared to the female workers, resulting in a generally lower protection gap.

Figure 3.2 Pension Protection Gap across Gender (in %)

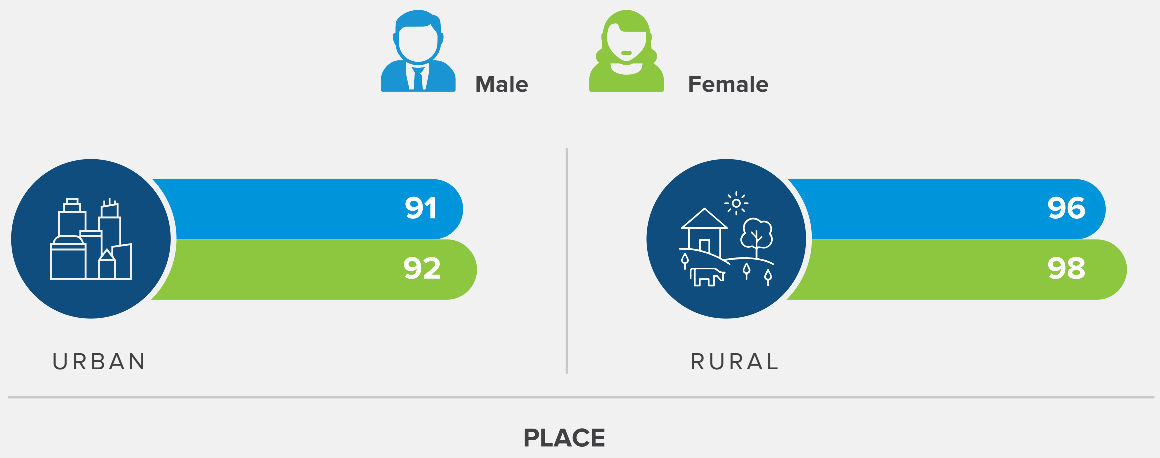


Figure 3.2 illustrates that while the pension protection gap is slightly lower for males than females, the difference isn't significant. This suggests that the pension protection gap exceeds 90% across genders, signifying a crucial need for adequate protection for both groups.

Female Workforce and Pension Coverage:

It's noteworthy that only 15% of female employees are currently covered under an employer's pension scheme. With a growing emphasis on gender diversity in many organizations as part of their Environmental, Social, and Governance (ESG) programs, more women are anticipated to join the workforce. Ensuring their adequate protection in the upcoming years becomes imperative.

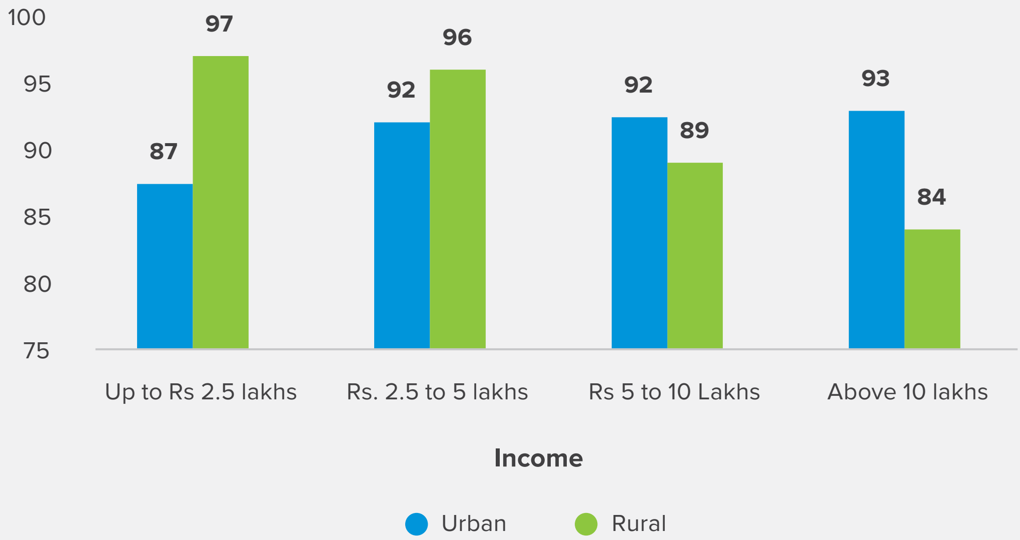
Opportunities for Insurers:

This situation presents a substantial business opportunity for life insurers to educate and emphasize the importance of pension or annuity products, particularly targeting the increasing female workforce.

3.2.3 Pension Protection Gap Across Income Categories:

There exists a strong inverse correlation between protection gaps and incomes. Generally, as income levels rise, the pension protection gap tends to decrease, assuming individuals across income categories are covered under pension schemes in proportion to their earnings. This relationship was evident in life insurance, where those in lower and middle-income brackets exhibited higher protection gaps, while individuals with higher incomes (Rs.10 lakhs to Rs.20 lakhs and above Rs.20 lakhs) demonstrated relatively lower protection gaps. However, such a direct correlation wasn't observed in the pension protection gap, notably among urban clients, as depicted in figure 3.3 below.

Figure 3.3 Pension Protection Gap Across Income



Contrastingly, in rural areas, a clear relationship is evident. Those with annual incomes of Rs.5 lakhs to Rs.10 lakhs and above Rs.10 lakhs displayed comparatively lower protection gaps at 89% and 84%, respectively, while individuals earning less than Rs.5 lakhs have a notably higher protection gap at 96%. However, across various income categories, urban customers exhibited a higher protection gap of approximately 92%, posing a significant concern.

The higher protection gap in urban areas might be attributed to several factors, including higher cost of living and healthcare expenses. Many urban workers tend to invest in property and other high-return investment products, possibly diminishing their perceived need for pension coverage. Additionally, a considerable number of workers in unorganized sectors remain without any pension or retirement benefit schemes, contributing to this disparity.

3.2.4 Penetration of Pension & Annuity Across Different Income Categories:

Figure 3.4 Penetration of Pension/Annuity – Income

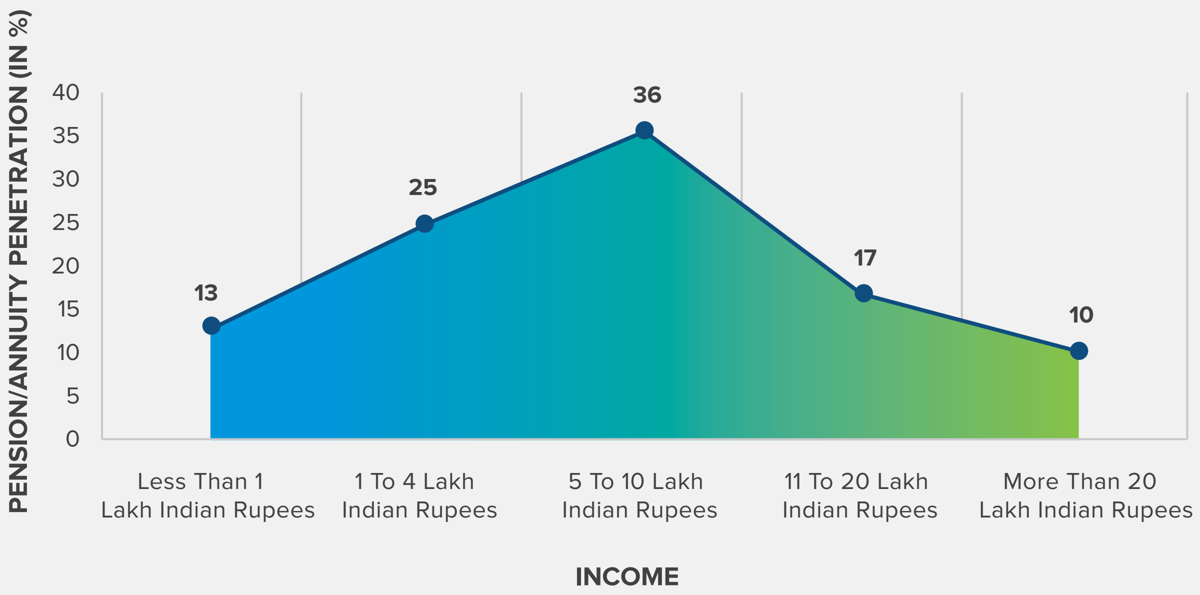


Figure 3.4 illustrates the relatively low pension penetration across various income segments.

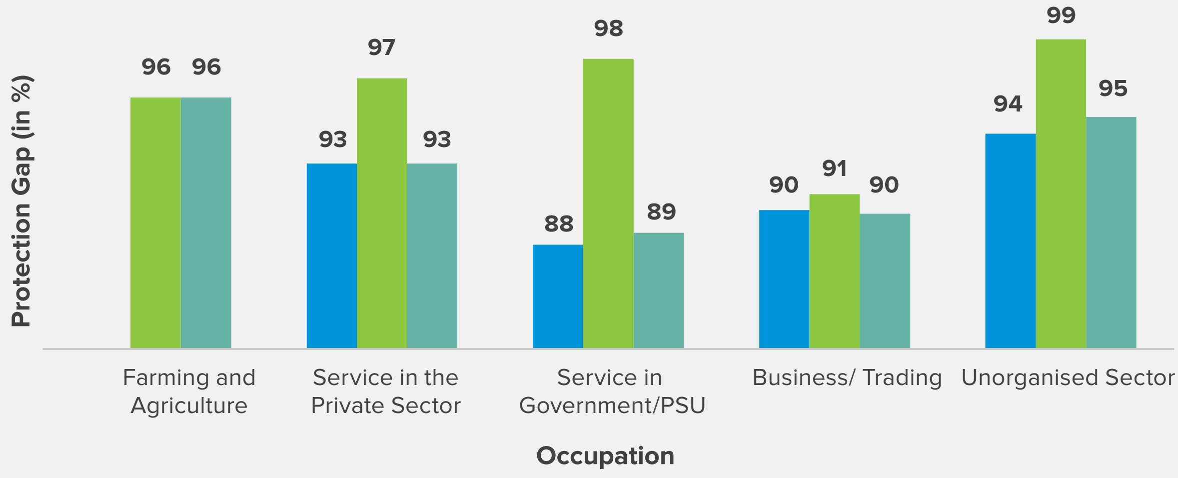
Among the low-income earners, only 13% have pension coverage, while in the low-middle-income category, the coverage is slightly higher at 25%. Even in the upper middle-income segment, approximately 36% are covered, primarily comprising individuals from organized sectors. Notably, even in the higher income brackets, particularly among those earning between 10 lakhs to 20 lakhs and more than 20 lakhs annually, only around 17% and 10%, respectively, are covered.

A significant portion of the low-income segment likely operates within the unorganized sectors, while individuals earning above ten lakhs annually often hail from the business segment. These two segments demonstrate notably low penetration of pension or annuity coverage.

3.2.5 Pension Protection Gap Across Occupation:

Individuals employed in diverse sectors experience varying levels of protection gaps. It is well-known that employees in organized sectors, especially in government and private sectors, typically benefit from occupational pensions or retirement schemes. Consequently, they tend to exhibit a comparatively lower protection gap compared to those engaged in unorganized sectors, such as traders and business owners.

Figure 3.5 Pension Protection Gap Across Occupation



As demonstrated in Figure 3.5, government or PSU company employees exhibit a lower protection gap of 88% in urban areas, contrasting with a higher rate of 98% in rural regions. Meanwhile, employees from the private sector and business/trading sectors showcase protection gaps ranging from 90% to 93%. Farmers or individuals engaged in the agriculture and unorganized sectors often lack coverage under any pension scheme. Educating them about schemes like the Atal Pension Yojana (APY), given its minimal and affordable contribution structure, could be beneficial.

3.2.6 Penetration of Pension and Annuity Across Different Sectors:

Our study indicates that the majority of individuals covered under distinct pension and retirement schemes stem from the organized sector, particularly from large private companies, government, and PSU organizations. Only a small percentage of employees working in unorganized sectors, businesses, or trading domains have coverage.

Figure 3.6 Penetration of Pension/Annuity – Occupation

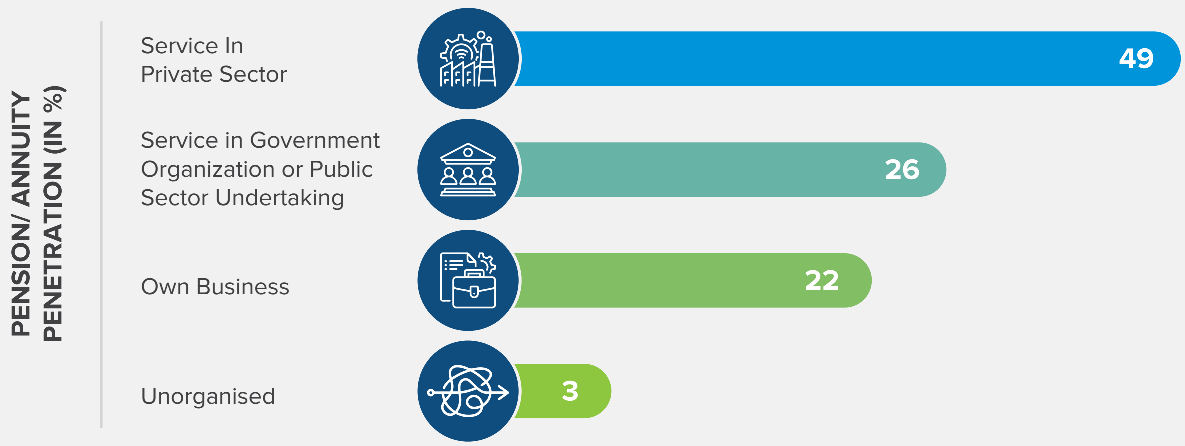


Figure 3.6 illustrates that the majority of coverage is held by employees from private and PSU sectors (49%) and government organizations (26%). However, only 22% of individuals from businesses and unorganized sectors are covered under various retirement and pension schemes.

Pension penetration remains relatively low at 22% among business/trader and unorganized sector workers. Therefore, there is a crucial need to educate urban residents about the significance of pension protection and the available provisions, such as pensions and the National Pension System (NPS). Insurers should strategize on how to engage with this segment, possibly through models like bancassurance (utilizing the Jan Dhan Yojana model), which covered nearly 7.5 crore active bank account holders under the PMJJBY.

3.2.7 Pension Protection Gap Across Different Educational Categories

It is believed that a lack of awareness about pension products contributes to the low pension penetration across different segments of the population. People generally assume that individuals with higher education and professionals understand the significance of pensions. Therefore, examining the pension protection gap across various educational backgrounds becomes essential to assess education's impact on pension coverage.

Figure 3.7 Pension Protection Gap Across Education Level

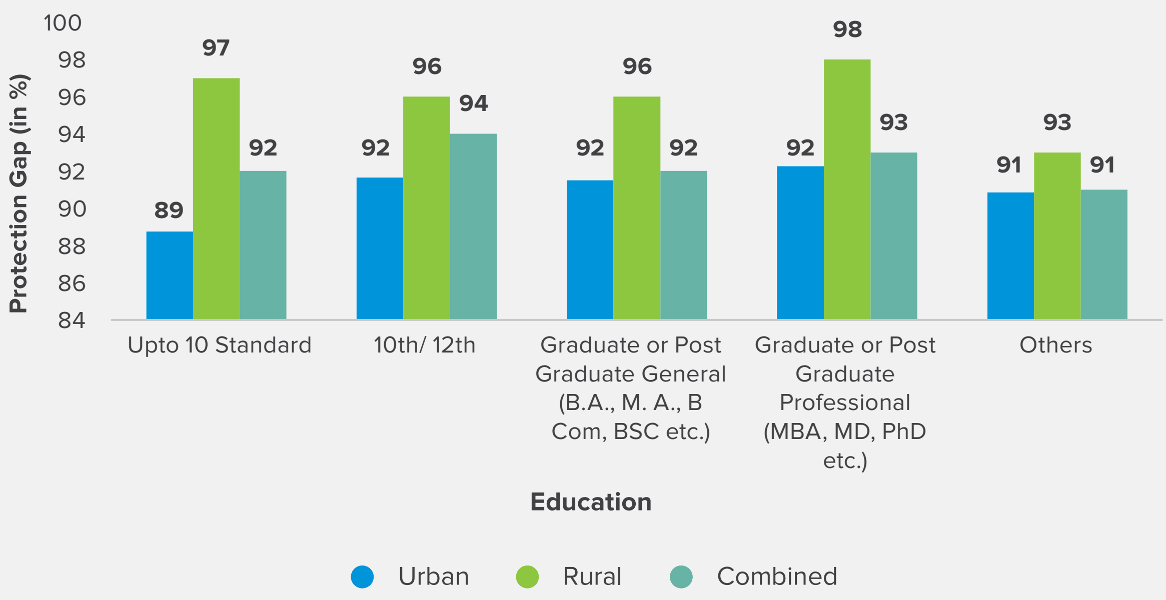


Figure 3.7 illustrates a significantly high pension protection gap, reaching 92% in urban areas and 96% in rural areas across all categories of people. Even among highly educated individuals, including postgraduates and professionals, the protection gap remains notably high at around 92% in urban regions and 98% in rural regions. This observation suggests that all categories of people display relatively low pension awareness, indicating that even educated individuals may not fully recognize the necessity of retirement planning.

3.3 Pension Protection Inadequacy

As discussed earlier, increasing longevity, rising medical costs, living expenses, inflation, and financial market volatility contribute to the widening pension or annuity protection gap in India. Even among individuals covered by retirement pension schemes provided by their employers, the current or projected annuity payments are significantly inadequate due to the aforementioned reasons.

According to the Mercer Global Pension Index[9], India's pension adequacy score stands at 38.7%, notably lower compared to China (53.4%) and Brazil (72.5%), indicating a considerably low level of pension adequacy. Swiss Re estimates that the retirement funding gap is projected to reach $85 trillion globally by 2050, growing at a CAGR of 10%.

As seen before, many individuals from the informal sector and economically weaker sections refrain from availing of annuity or pension protection covers. Their reluctance stems from several factors, such as lack of awareness, irregular income with limited or no savings, and behavioral resistance to investing in financial or savings products, including insurance. A World Bank study reveals that a majority of young workers from the informal sector, lacking surplus income for retirement savings, will face insufficient funds upon retirement or will need to depend on government social security schemes.

Recall that only about 22% of unorganized sector workers are covered under various pension and retirement benefit schemes, leaving the remaining 78% without any pension or annuity payout during their retirement period. This majority needs to construct their own resources to finance their retirement.

Government initiatives such as 'Make in India' and the promotion of more fintech or InsurTech companies entering the Indian market could reduce the organized sector's workforce. Additionally, increased Foreign Direct Investments (FDI) in the Analytics, Technology, or ITES sectors might bolster the informal and unorganized sectors, amplifying their employment numbers. Consequently, fewer people would fall under formal retirement benefit schemes, necessitating greater self-financing of retirement needs through savings-linked investment products.

Furthermore, the recent shift from defined benefit schemes to defined contributions could lead to 'Pension protection inadequacy' even among employees covered under retirement or employee benefit schemes. This change has shifted the responsibility of ensuring adequate protection from employers or the government to the beneficiaries or annuitants.

Secondly, the increase in longevity, escalating medical costs, inflation, financial market volatility, and declining interest rates would heighten the cost of living during retirement. These changes would amplify the pension protection inadequacy, making it essential for organized sector employees to seek additional coverage through individual annuity products. This aspect needs to be emphasized as individuals often overlook it during their working years.

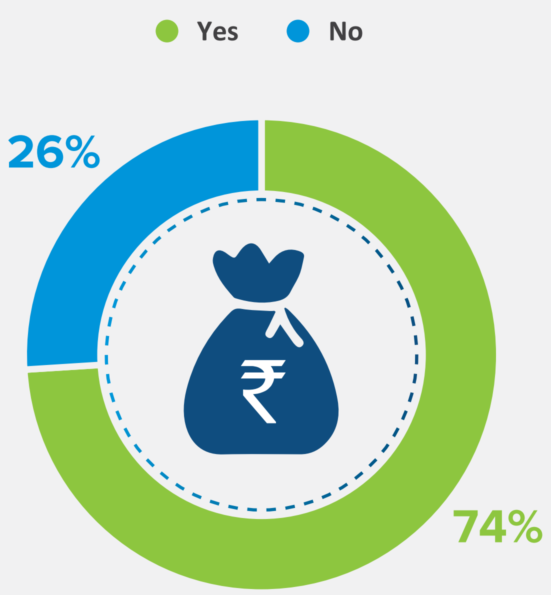
To comprehend the reasons for protection inadequacy, various questions were posed relating to pension adequacy perception, expected annuity payouts during retirement, affordability of contributions, and the necessity to enhance pension coverage in the near future. Responses to these questions were analyzed across different demographic factors, including age groups, gender, income levels, and occupations.

[9]Mercer CFA Global Pension Index Survey, 2022

3.4 Need to increase Pension Coverage

To assess the adequacy of pension coverage among the insured, we asked them to evaluate if their current pension coverage suffices, considering their anticipated living expenses during retirement.

Figure 3.8 Need to Increase Pension/Annuity Cover



Approximately **74% of respondents perceive their pension coverage as inadequate**, particularly in anticipation of escalating living expenses, inflation, and financial market volatility in the near future. The majority, consisting of young and middle-aged segments (50%), predominantly millennials (aged 26 to 41), express concern that their current pension coverage won't sustain the expected standard of living during retirement.

Notably, a significant proportion (36%) within the 45 to 55 age group also believes their pension coverage is insufficient to cover their future living expenses.

These findings indicate a necessity for insurers and intermediaries to educate both organized sector employees and business personnel about the importance of augmenting their pension coverage. The focus should be on acquiring additional annuity coverage, providing a sufficient amount to ensure a comfortable retirement life. Moreover, there's a critical need to educate individuals about the impact of rising healthcare costs and inflation on the determination of appropriate annuity coverage.

3.5 Perception of the Expected Annuity Payouts:

We obtained the respondents' perceptions regarding their expected annuity payout amounts and compared these across different demographic factors to identify the customer segments with the highest or lowest payouts, assessing whether they are adequate about their income levels.

Figure 3.9 Gender-wise Expected Monthly Payout (in Rs)

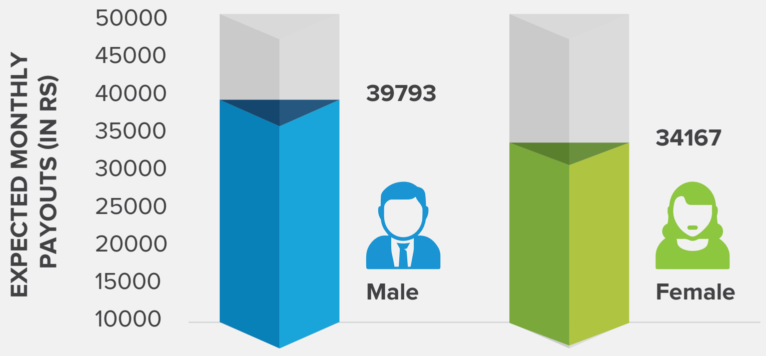
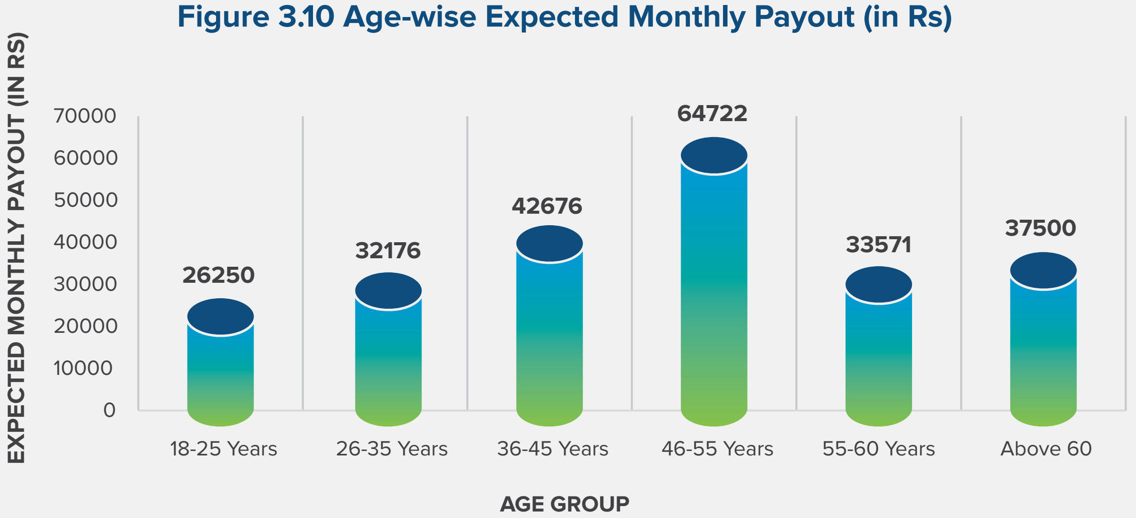
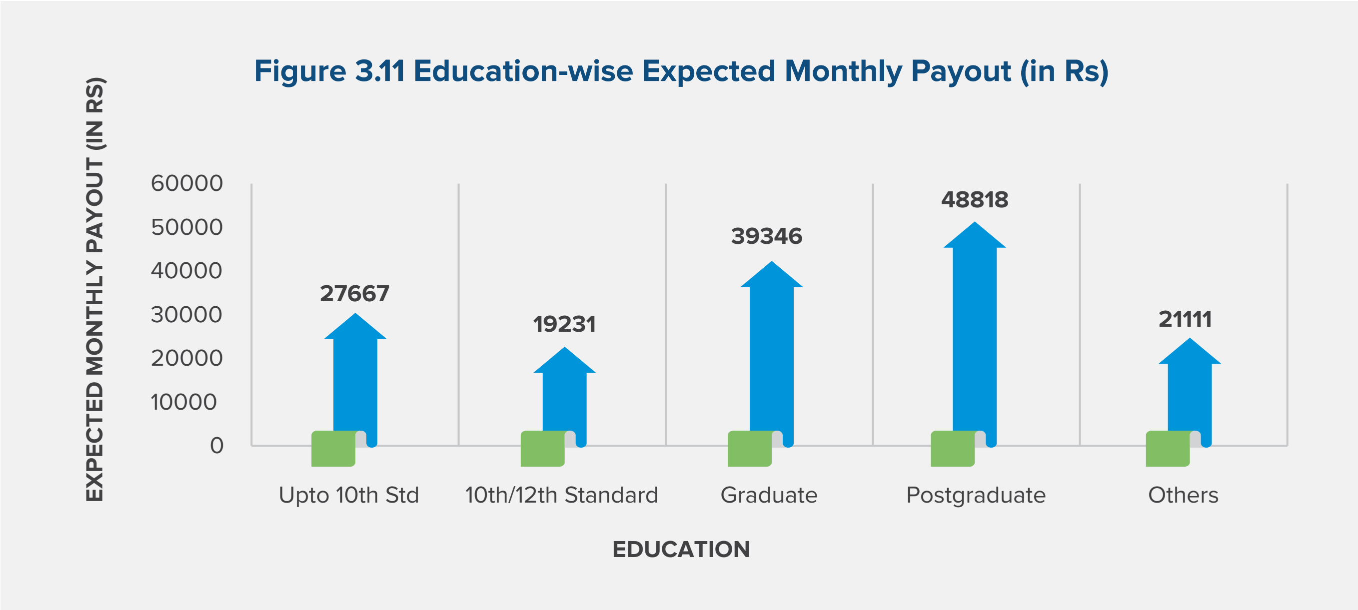


Figure 3.9 indicates that male respondents' average monthly annuity payout is around Rs. 40,000, while female respondents' average is Rs. 34,000. This suggests that male workers potentially have higher monthly incomes and family responsibilities compared to female workers. However, their average annuity payout appears to be highly inadequate in relation to their average monthly income (Male average income vs. Female average income).

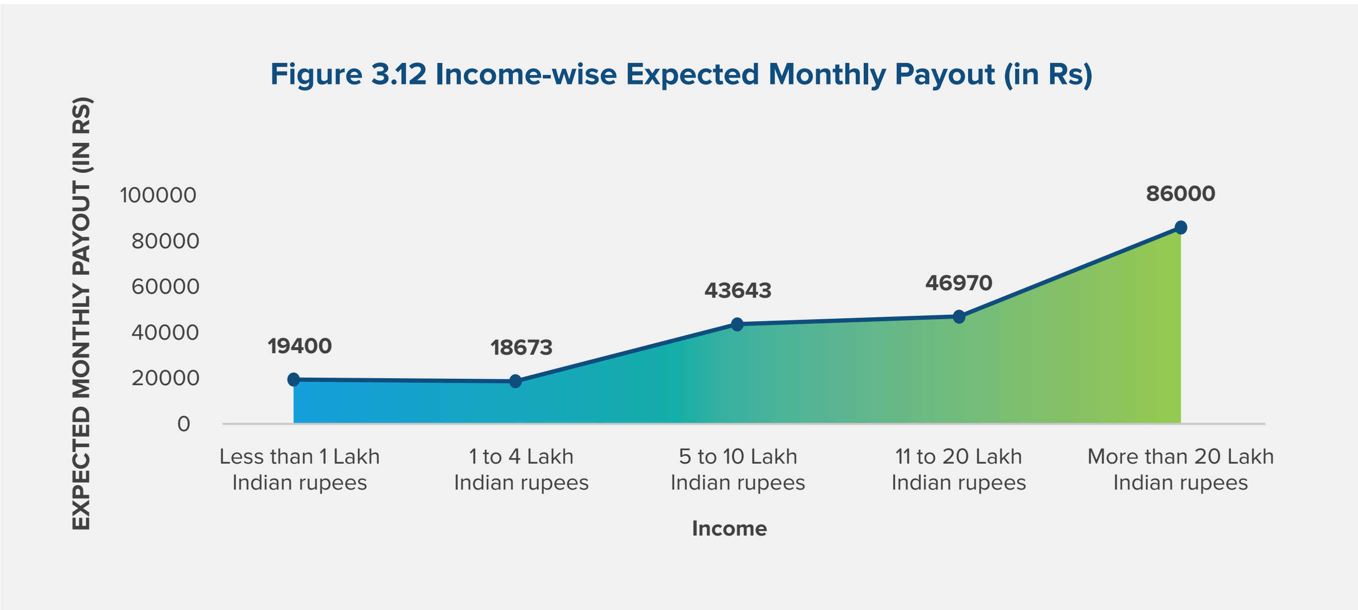
Figure 3.10 Age-wise Expected Monthly Payout (in Rs)



From Figure 3.10, it is apparent that the realization of adequate protection becomes more prominent as age increases, particularly up to the age of 55. Younger individuals (18 to 25 years and 26 to 35 years) expect comparatively lower annuity payouts of Rs. 26,000 to Rs. 30,000 during their retirement compared to middle-aged customers. Those in the upper middle-aged category (46 to 55 years) perceive higher annuity payouts, potentially due to greater family responsibilities such as children's education and marriages. However, those above 55 feel an average payout of Rs. 33,000 to Rs. 37,000 is reasonable, considering their current income levels.



Individuals with higher education qualifications, such as postgraduate and professional degrees, anticipate an average monthly annuity payout of around Rs. 50,000, while those with lower educational backgrounds expect an average payout of Rs. 30,000. However, their expected annuity payout is inadequate, considering increasing inflation and longevity.



Respondents' perception of annuity payouts significantly corresponds with their current income levels, as shown in Figure 3.12. People with higher incomes anticipate higher annuity payouts. For instance, individuals with an annual income of Rs. 10 lakhs to Rs. 20 lakhs expect an average monthly payout of Rs. 46,970, while those with over Rs. 20 lakhs (annual income) expect a monthly payout of Rs. 86,000. Even though their perception aligns with their current income level, their expected average monthly annuity payout is highly inadequate when considering their future living expenses and the desired lifestyle quality they aim to maintain during their extended retirement period.

3.6 Perception of Pension/Annuity Coverage Adequacy Among Different Demographic Segments:

The primary purpose of this analysis is to comprehend the perception of annuity payout adequacy among different demographic segments, including age groups, gender, occupations, and income levels.

Figure 3.13 Perception of Pension/ Annuity Coverage Adequacy - Age

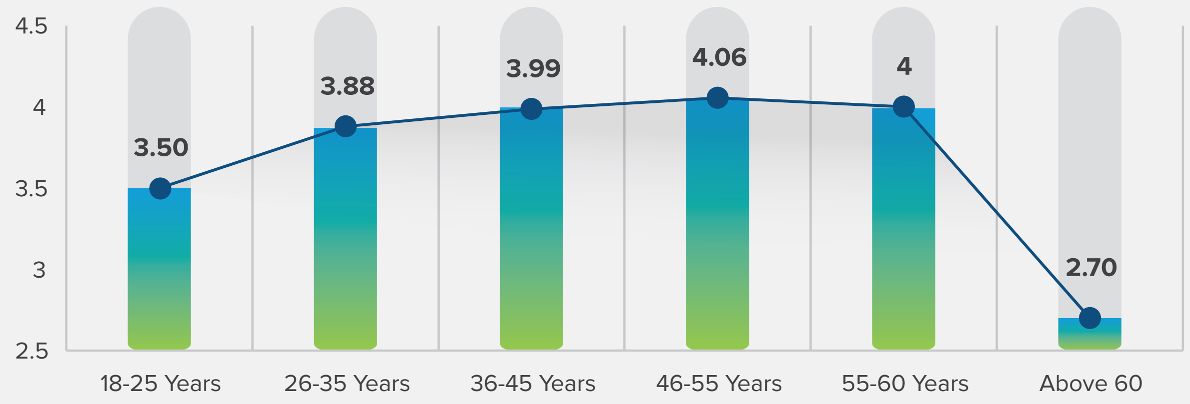


Figure 3.13 indicates that as age advances, the perception of pension adequacy increases. Younger age groups, 18 to 25 years and 26 to 35 years, do not perceive their pension coverage as sufficient, with a mean rating of 3.50 to 3.88. In contrast, individuals from the age groups 36 to 45 years and up to 55 years believe their pension coverage is adequate, rating it at 4.00. However, individuals above 60 years feel that their pension coverage is highly inadequate, rating it at 2.70. This suggests that individuals during their active work life till age 55 years seem less concerned about pension coverage adequacy, realizing its significance more strongly during their retirement period.

Figure 3.14 Perception of Pension/ Annuity Coverage Adequacy - Occupation

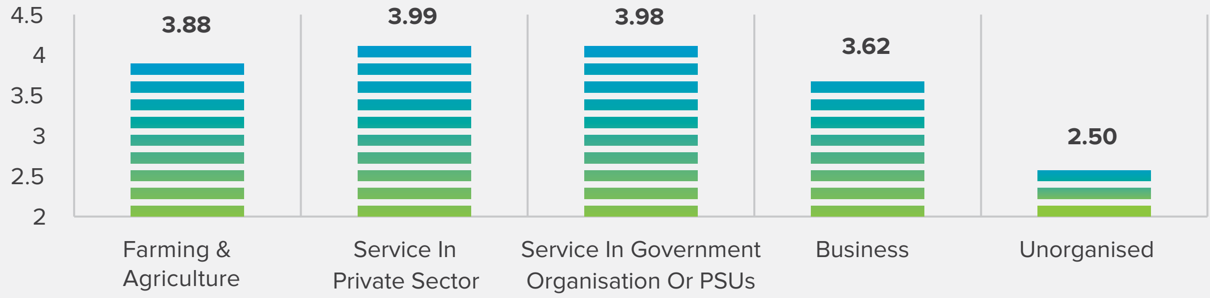
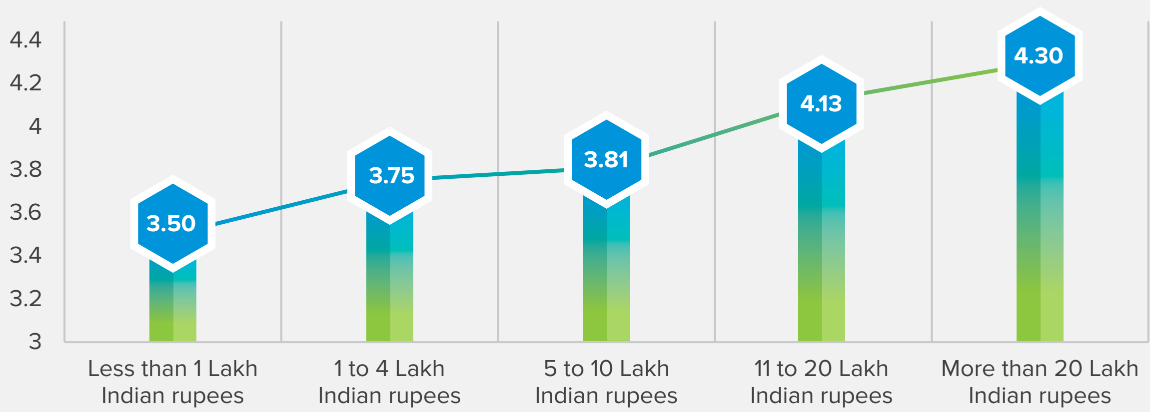


Figure 3.14 highlights that individuals employed in the private sector, PSU, and Government perceive their pension coverage as adequate. On the other hand, those in business and unorganized sectors perceive it as inadequate. This suggests that individuals in organized sectors are largely covered under occupational pension or retirement benefit schemes, while those in business and unorganized sectors lack any pension or social security scheme benefits.

Figure 3.15 Perception of Pension/ Annuity Coverage Adequacy - Income



The perception of pension adequacy tends to rise with increasing income levels. Individuals in lower income categories, with an annual income of less than one lakh and 1 to 5 lakhs, perceive their pension adequacy as relatively low (rated 3.30 to 3.75), with nearly 74% of them feeling their pension coverage is inadequate for their retirement needs. Similarly, a significant percentage of middle-income families also consider their coverage inadequate. However, individuals from higher income groups, earning Rs. 11 lakhs to 20 lakhs and more than Rs. 20 lakhs annually, perceive their insured sum or pension coverage as adequate, with mean ratings of 4.15 to 4.30. This suggests that those in higher income categories likely have higher investments in pensions, life insurance, and other financial products.

Figure 3.16 Perception of Pension/Annuity Coverage Adequacy - Education

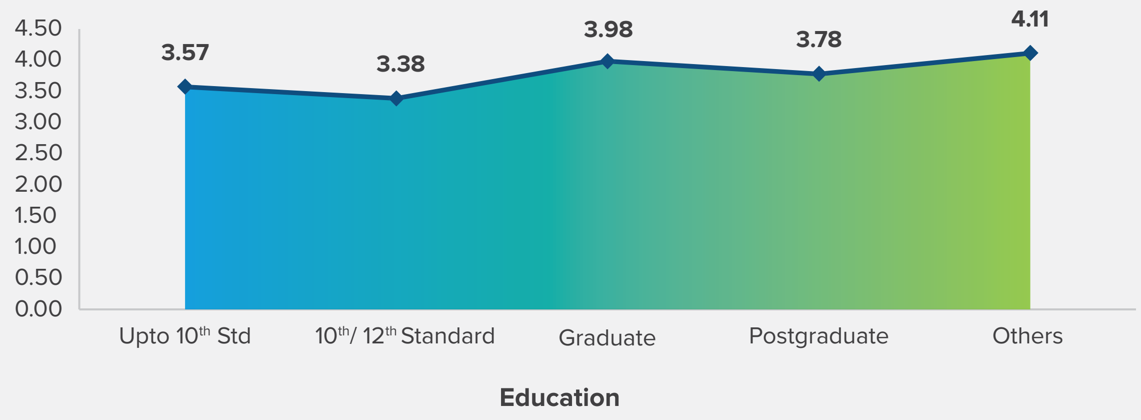
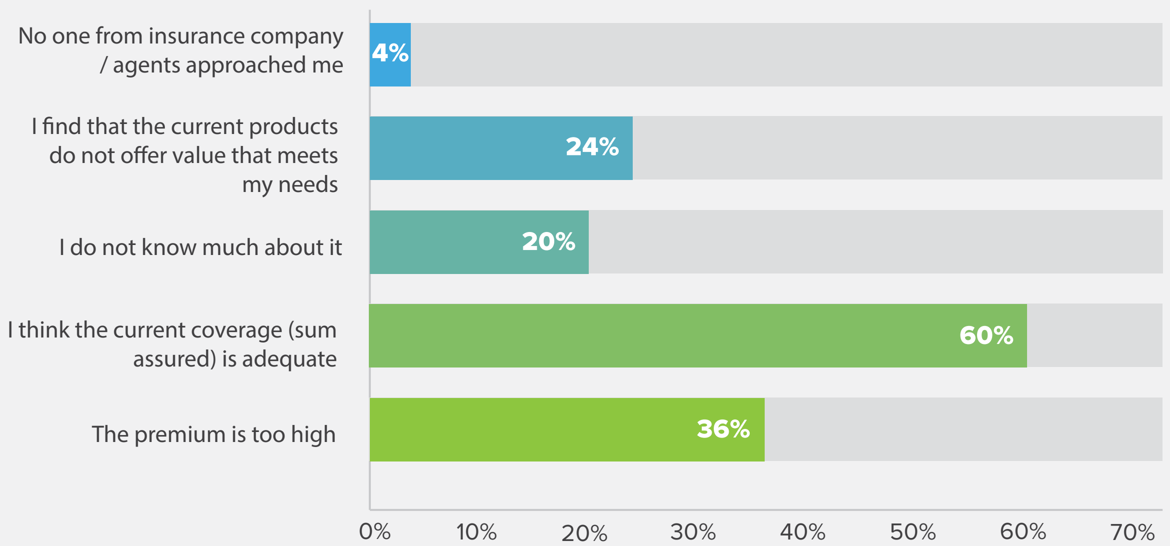


Figure 3.16 reveals a minimal perceptual difference in pension adequacy across various educational levels. This indicates that most respondents lack a clear understanding of protection adequacy. Their awareness and perceived need for adequate coverage in pensions are notably low across different educational segments.

3.7 Reasons for not increasing Pension Annuity Coverage:

Based on the above analysis, it is evident that the pension or annuity payments for a significant number of people across demographic segments such as age and income groups, occupations, and organization types are inadequate to ensure a comfortable and high-quality post-retirement life. Surprisingly, our survey reveals that despite the insufficiency of their pension or annuity coverage, many individuals are not willing to increase their coverage. This indicates a lack of understanding about the ideal level of pension coverage necessary for a comfortable retirement life. This section delves into the primary reasons for the reluctance to increase coverage.

Figure 3.17 Reasons for Not Enhancing the Coverage



While many recognized their pension coverage as inadequate, they expressed the intention to enhance it. However, when questioned about the major reasons for not increasing their coverage over the years, several existing customers provided feedback. Sixty percent believed their coverage was adequate, 36% cited higher premiums as a deterrent, and 20% admitted a lack of awareness and knowledge about pension products. Most notably, 24% perceived that the current products fail to provide them with sufficient value and meet their pension needs.

3.8 Increasing Demand for Pension:

Due to the relatively lower penetration of pensions and annuities in India, the increasing risk of longevity, a highly volatile financial market, and rising inflation and medical costs, the pension market is expected to undergo significant growth in the near future.

Figure 3.18 Willingness to Purchase Pension/ Annuity Plans

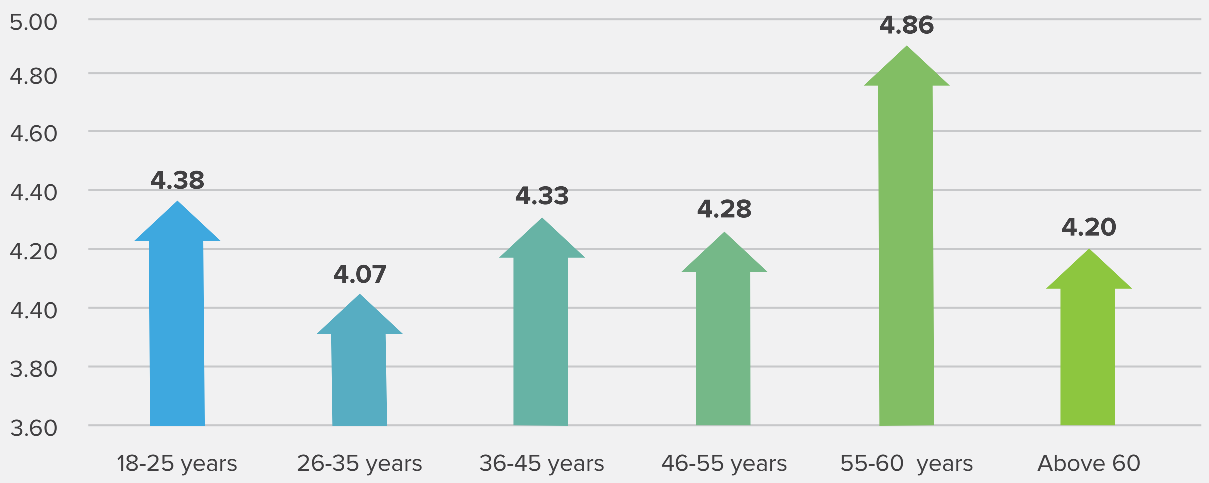


Figure 3.18 illustrates that nearly all surveyed respondents are in agreement regarding the importance of investing in pension and annuity products. This unanimous perception is consistent across all demographic segments, as indicated by mean ratings exceeding 4.20 across various age groups. Insurers and intermediaries should focus on educating customers, especially at a younger age, about the significance of pension planning. Additionally, conducting pension need analysis across different demographic segments would aid in recommending suitable products and coverages aligned with individual retirement.

3.9 Summary of Findings and Suggestions

Overall, the Annuity & Pension Protection Gap stands at 93%, differing slightly between Urban (91%) and Rural areas (96%). This indicates a high protection gap across cities and rural regions. The penetration of pensions is low, with only about 24% covered under employee retirement schemes. According to PFRDA statistics, approximately 14% of the workforce from the unorganized sector is covered under NPS Lite and Atal Pension Yojana, a small proportion of the total workforce of 53.79 crore.

The majority (73%) of the insured belong to formal employee retirement schemes from organized sectors. Among these, 32% are covered under Central and State Government schemes, 48% by Employee Provident Fund, 15% by NPS, and 5% through annuities from life insurance companies.

The protection gap is notably high (95%) among the young and millennial segment (26-35 years) in Urban areas and similarly high (97%) in Rural areas. Around 88% of them do not plan for their retirement.

The upper middle age group (46 to 55 years) also faces a high protection gap of 85% in Urban areas and 88% in Rural areas, making it crucial for them to have a substantial corpus for an immediate annuity plan. Suggestions for these individuals include investing in annuity products from insurance companies or secured debt oriented funds in NPS.

Young people, particularly in rural areas, could opt for NPS & APY schemes with low and affordable contributions. Those in urban areas, especially those with middle or higher incomes, might require composite pension coverage, providing basic pensions combined with investments in high-yield securities or inflation-linked pension products.

Income-wise, individuals with an annual income of Rs.5 lakhs to Rs.10 lakhs and above Rs.10 lakhs have slightly lower protection gaps of 89% and 84%, respectively, which is higher compared to the cost of living and medical expenses, while lower-income customers with less than Rs.5 lakhs face a high protection gap of 96%.

Pension penetration is relatively low (14%) among low-income individuals and 25% among lower-middle-income segments, primarily working on a contractual or temporary basis in the private or unorganized sectors. Recommendations include advising them to opt for the Atal Pension Scheme and PM-SYM, while higher-income earners could be advised to buy Annuity products from life insurers and consider High Return Variable Annuity or Index-linked pension products if available in the Indian market.

Although the male protection gap (92%) is slightly lower than the female (93%), both face high pension protection gaps. Only 15% of female employees are covered under employee pension schemes, making it crucial to address this discrepancy.

Around 75% of respondents perceive their pension coverage as inadequate due to increasing living expenses, inflation, and market volatility. A significant segment (36%) from the age group of 45 to 55 also feels their coverage is insufficient. Employers/government are advised to enhance pension coverage for this segment.

A considerable segment **(36%) of middle-aged from the age group of 45 years to 55 also feel that their pension coverage is insufficient**. They want **a higher monthly annuity payout of Rs.86000 (approximately)** as they have higher family responsibilities like children's education, marriage, etc. Most are from the organized sector and perceive their expected pension coverage as inadequate. Hence, it is suggested that employers/government need to enhance their pension coverage.

Respondents from the middle-income segment perceive an average payout of Rs.33,000 to Rs.37,000 as reasonable, indicating a lack of clarity among millennials (26 to 35 years) and above 60 years regarding their pension payout needs.

Low-income individuals (annual income less than one lakh and 1 to 4 lakhs) believe their pension adequacy is relatively low (3.30 to 3.75) and perceive their pension coverage as inadequate.

The majority of the respondents (more than 70%) have no retirement plans, and around 35% prefer to invest in financial products rather than pension funds for their retirement.

Lack of awareness and knowledge about pension products, income constraints, and family liabilities hinder retirement planning. It is crucial for stakeholders to conduct comprehensive awareness campaigns involving regulators (PFRDA, IRDAI, and SEBI) and insurers via appropriate social media planning.

Although the majority express the intent to invest in pension or annuity products soon, there is a need to raise awareness about building a sufficient retirement corpus. Different demographic segments require customized pension products based on changing investment needs, preferred retirement age, and medical requirements. This could include Combo products covering pension and medical needs during old age.

Long-term care insurance with critical care and disability benefits should be designed alongside pension cover to address old-age morbidity risks.

Life insurance companies should have an exclusive vertical dedicated to pension and annuity products, which would significantly improve the penetration. **The Pension Fund Regulatory and Development Authority (PFRDA) should encourage established standalone Pension & Annuity companies to start their pension business, which would augment the Pension/ Annuity business in India.**

Attractive commission rates for pension and annuity products, especially deferred annuity products, are essential to encourage agents and intermediaries to promote these products more aggressively. Professional training and technical support should be offered to intermediaries and bancassurance partners to develop their knowledge about these products.

Integrating pension and annuity products into the Bima Vahak woman-centric distribution channel could promote increased coverage. This could be bundled with Bima Vistaar, a comprehensive life, health, and property insurance.

The government could offer suitable tax benefits to attract young customers to invest in pension and annuity products. **There should be a strengthened effort to enhance the social security schemes of PM Shram Yogi Maan Dhan and Atal Pension Yojana, utilizing banks and financial institutions to increase enrollment via the Jan Dhan platform.**

The government can enhance the employers' contribution to retirement benefits and also provide tax incentives, which would enhance pension/ protection coverage.

4. HEALTH INSURANCE

4.1 Introduction:

The healthcare sector stands as one of the world's largest and most rapidly expanding markets. In most developed economies, healthcare expenditure comprises nearly 10% of their economy. **According to the (OECD, 2022) , the global healthcare market currently stands at $8.3 trillion, with a steady annual growth rate of 10%. Post the Covid-19 pandemic, global healthcare spending surged by 40% in the last four years, reaching $12 trillion in 2023 . In India, the health insurance market has grown steadily at a compound annual growth rate (CAGR) of over 20% between 2017-2022, amassing a premium income of Rs 90,667 Crore in 2023 . This growth is primarily attributed to increased health awareness post-Covid-19, escalating healthcare costs, and governmental social security initiatives targeting the uninsured.** Additionally, increasing income levels, a surge in lifestyle diseases, and better accessibility to private insurance contribute significantly to the health insurance sector's expansion.

India employs a mixed healthcare model integrating both public and private health insurance financing. Public health services, largely administered by tax-funded public hospitals, are essentially free for all Indian residents, apart from nominal registration or admission fees. **Government contributes nearly 40 % of total healthcare expenditure apart from subsidizing the premium on government sponsored health insurance schemes notably PMJAY, covering almost 10.74 crore households, totaling nearly 50 crore beneficiaries. Private health insurance accounts for 15% of total healthcare costs. However, despite these efforts, over 50% of healthcare expenses are covered directly by individuals, signifying a substantial reliance on out-of-pocket payments.**

Figure 4.1 - Historical Trend of Out-of-Pocket Expenditures of Individuals

Source: World Health Organization Report

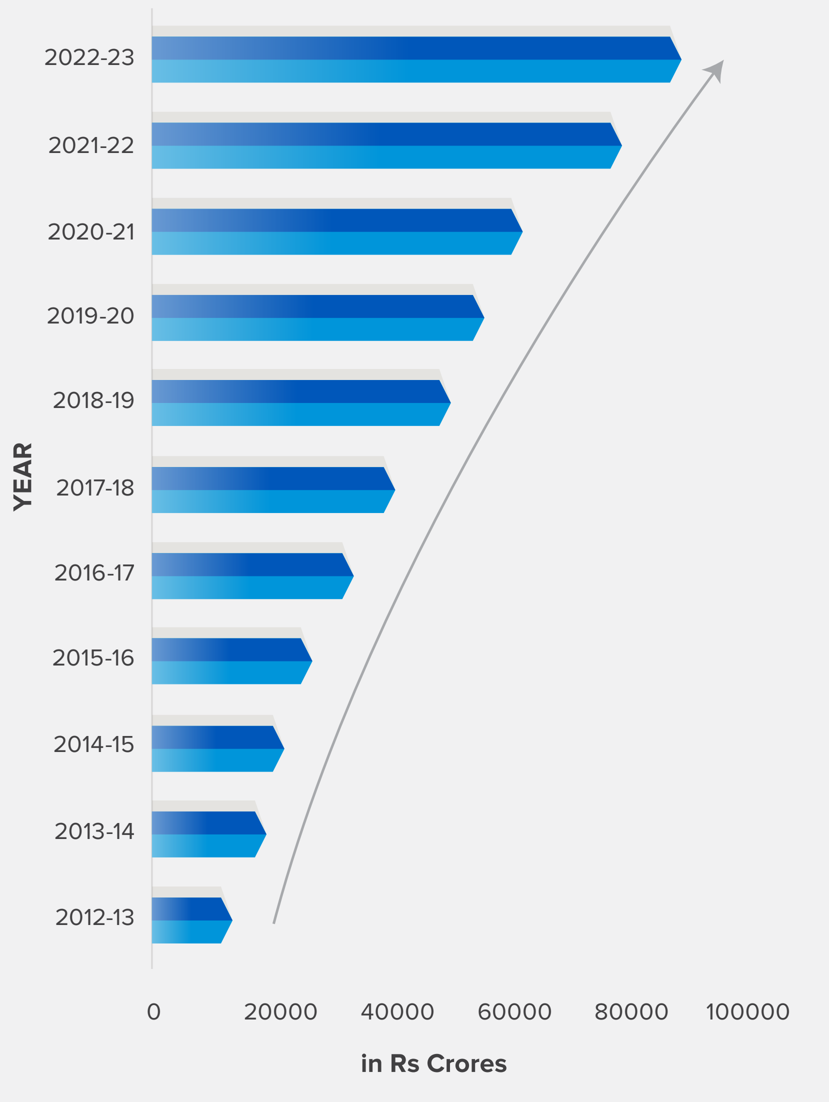
[1]OECD Report on Health Care, 2022
[2]World Economic Forum Report on Health Care, 2023
[3]IRDAI Insurance Statistics, 2023

The above figure 4.1 depicts that according to WHO (World Health Organization), out-of-pocket healthcare expenses reduced from 71.7% in 2000 to 51% in 2020. However, the out of pocket expenditure of the individuals may go up in near future due to increased healthcare costs during the Covid-19 pandemic and rising medical inflation (the current medical inflation rate is 14%). Approximately 30% of the population remains uninsured by either public or private health insurance, contributing to a significant health insurance protection gap. Recent studies by Swiss Re (2023) highlight a global health insurance protection gap currently standing at $889 billion.

Health Insurance Penetration:

The health insurance market in India, experiencing a consistent 20% CAGR over the last five years, has become a leading business line, recording a premium income of Rs. 90667.73 Crore (US$12 billion) and a remarkable 24% growth during the Financial Year 2022-23.

Figure 4.2 Health Insurance Premium Growth from 2012 to 2023



The above figure 4.2 indicates the exponential growth of health insurance premiums against the trend of predicted growth in the health insurance space in India.

Notably, this growth is bolstered by increased insurance awareness post - Covid-19, alongside government efforts in instituting mass health insurance schemes covering close to 50 crore beneficiaries and regulatory reforms introducing standardized and simplified products.

[1]World Health Organization Report, 2022 https://www.who.int/

[2]Ref: https://www.swissre.com/

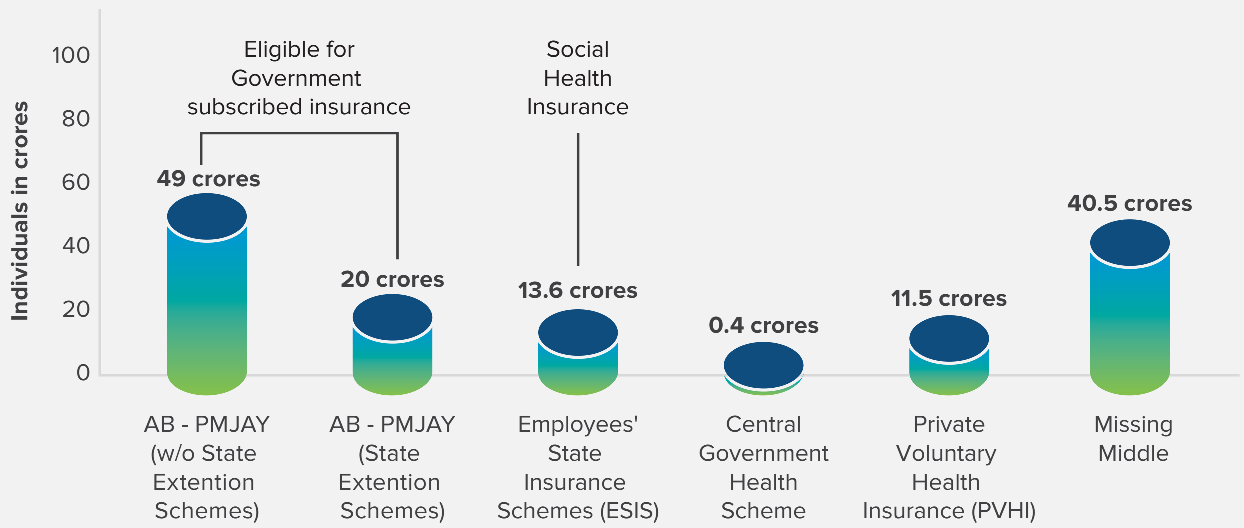
[3]Niti Aayog report dated 28th October 2021 on missing middle for health insurance

Low Penetration of Health insurance:

Despite an increase in insurance penetration from 2.71% in FY 2001 to 4.20% in FY 2021, the health insurance protection gap in India remains substantial. Over the past 20 years (from 2001 to 2023), premiums have seen substantial growth, yet the health protection gap (HPG) in India is among the highest globally. As estimated by the World Health Organization (WHO), total public and private health spending in India was just 3.0% of GDP in 2019, significantly below the global average of 9.8%.

Despite the increase in number of individuals covered by health insurance, yet 30% of the population (equivalent to 40 crore individuals) lack health insurance. This demographic primarily consists of self-employed individuals in both agriculture and non-agriculture sectors, informal sector workers in rural areas, and a significant number of low-income workers from informal, semi-formal, and urban manufacturing companies.

Figure 4.3 Individuals Covered under different Health Insurance Schemes



Source: NITI-Aayog Report

The analysis, as observed in Figure 4.3, highlights the impact of the flagship health insurance scheme **Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (AB-PMJAY) introduced in India in 2016. Alongside various State government Health extension schemes, AB-PMJAY provides**

- Comprehensive health insurance coverage.
- Predominantly offering hospitalization coverage (Mediclaim) to the economically weaker `sections, including those below the poverty line (BPL).
- Encompassing roughly 40% of the population.

Approximately 20% of individuals are covered through social health insurance and private voluntary health insurance. However, the study identifies that nearly 40 crore people (30%), largely belonging to low-middle-income categories, remain without any health insurance coverage.

Our study attributes the low penetration of health insurance to several factors, including a perceived lack of necessity, unaffordable premiums, financial constraints, lack of product knowledge or understanding, and pre-existing conditions that hinder inclusion under coverage.

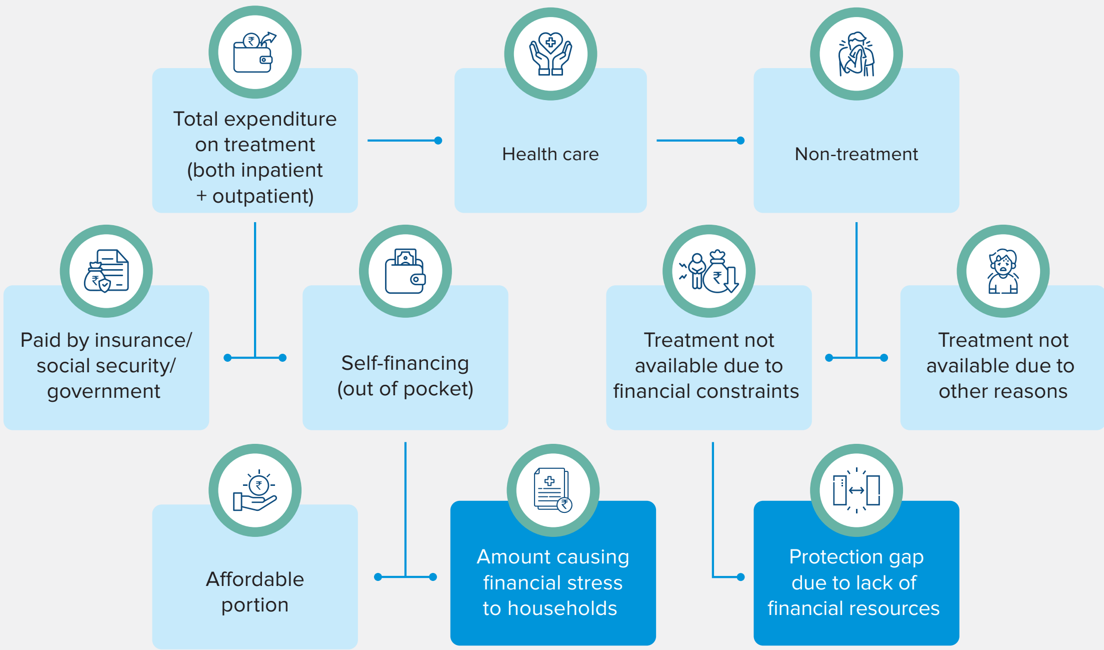
The subsequent sections of this report will discuss the Health Insurance Protection Gap methodology and analysis, retaining critical statistics and data references.

4.2 Definition of Health Insurance Protection Gap:

The health insurance protection gap denotes the disparity between an individual's total healthcare expenditure and the extent of health insurance coverage they possess. Swiss Re defines the health care protection gap as the **"Stressful self-financing cost plus the estimated non-treatment costs due to unaffordability"**. This gap primarily encompasses the following expenses:

1. The total healthcare expenses incurred for treatment, including outpatient department (OPD) charges, minus the sum of health insurance claims paid by insurers, encompassing social security and Government schemes.
2. The difference reflects the out-of-pocket expenditure by the individual and also incorporates costs causing financial strain.
3. Financial stress results from treatments foregone due to lack of affordability or the unavailability of treatment options.

Figure 4.4 – Health Insurance Protection Gap



Health protection gap = stressful self financing costs + estimated non-treatment costs due to unaffordability

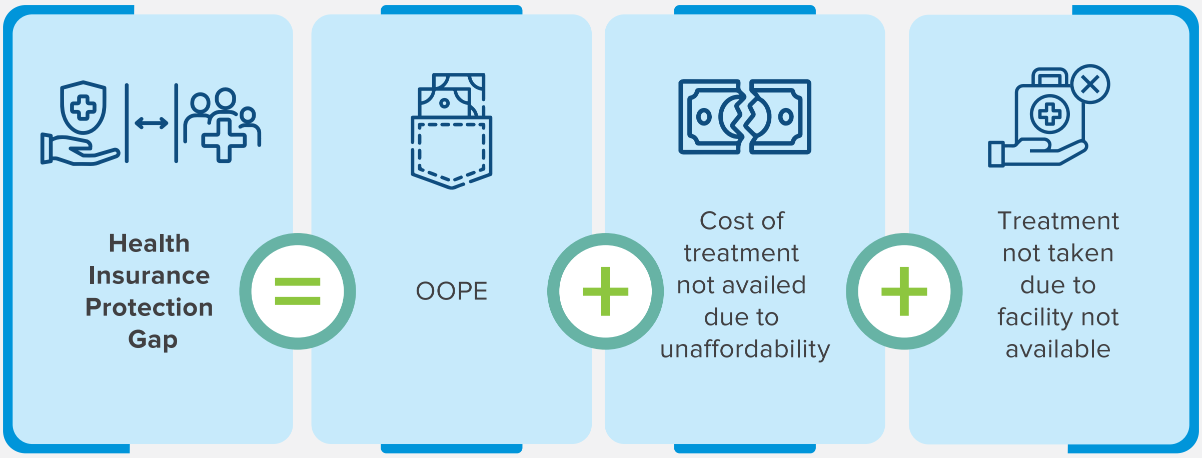
Source: Swiss Re

Consequently, the health insurance protection gap embodies the stressful self-financing costs and the projected expenses for non-treatment due to unaffordability or the unavailability of medical facilities.

[7]Health Insurance Protection Gap methodology adopted by Swiss Re

This study utilizes a simplified methodology for defining the health protection gap. It is represented as the "out-of-pocket expenditure (OOPE) incurred by an individual for their own or family's treatment, augmented by a notional amount representing healthcare expenditure due to Financial constraints and Unavailability of treatment (especially in rural areas)," as depicted in Figure 4.5.

Figure 4.5 - Calculation of Health Insurance Protection Gap



The Health Protection Gap was estimated for individual customers based on their OOPE they incurred on themselves and or family. The OOPE was determined based on their healthcare treatment costs, minus health insurance claim paid. Once the OOPE was estimated at the individual customer level, then medical inflation and the cost of treatment not availed was estimated based on the social economic profile of the respondents, their place of residence, and availability of medical facility, etc.

The overall health insurance protection gap for the entire sample was estimated at 73%. This high percentage indicates a significant gap in health protection, despite increased awareness about insurance and the rising number of insured populations. The increased protection gap is likely a consequence of insufficient insurance coverage and escalating healthcare costs, including medical inflation.

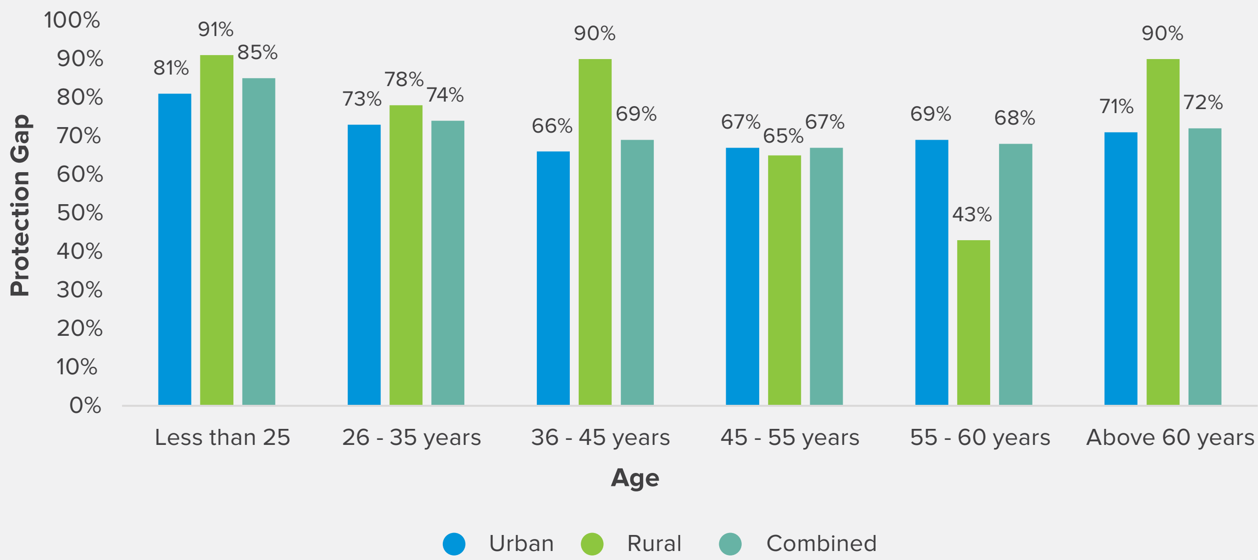
4.3 Analysis of Health Insurance Protection Gap:

The health insurance protection gap is significantly influenced by diverse socio-economic and demographic factors such as age groups, income levels, occupations, residential locations of customers, and their lifestyle elements. Consequently, estimated values of the health insurance protection gap were analyzed concerning these socio-economic and demographic factors. The outcomes of these analyses and the primary reasons for their disparities were primarily discussed to comprehend their management implications and to formulate appropriate suggestions aimed at minimizing this protection gap.

4.3.1 Age-wise Health Insurance Protection Gap

Age significantly affects the protection gap, impacting both urban and rural populations. Higher age often leads to increased sickness rates and unaffordable premiums, resulting in a widening health protection gap.

Figure 4.6 - Age-group Wise Analysis of Health Protection Gap



The analysis in figure 4.6 reveals a pronounced protection gap among younger customers under 25 and the 26 to 35 age group, which decreases among the middle-aged (36 to 55). However, it escalates significantly after 60 years. This trend is consistent in urban and rural areas up to age 35. Notably, a closer examination is needed for the 36 to 45 age group in rural areas due to their higher protection gap (90%). Similarly, the older population (above 60 years) also have higher protection gap which might be due to increased morbidity risk, critical illness required exorbitant Healthcare cost. It should be noted that many of the old age people do not have health insurance covers as the entry age for insurance preludes more than 60 years.

The data suggests that younger individuals often overlook health insurance due to their perceived good health, despite increased healthcare spending. Contrarily, individuals over 50 recognize the necessity of proper health coverage.

To address this, educating the younger generation on the importance of early health insurance, despite their current health status, is vital. Awareness should emphasize that illnesses or accidents are not related to age, and even younger individuals can have health issues. The pandemic emphasized the necessity of health insurance for all, regardless of age or income.

As the type of sickness and co-morbidity factors significantly vary across different age groups, customization of the products for different age groups in accordance with their risk profile can be an effective solution. For instance, a specific product for 18 to 35-year-olds, offering affordable coverage for their specific health needs, could entice younger individuals to secure adequate protection.

Moreover, creating long-term care (LTC) insurance with disability benefits for the elderly, along with varied premium payment with installment options (3–5-year premium payment), can assist in managing higher premiums in old age. Exploring premium financing can make rates more manageable for middle-aged and older individuals.

4.4 Education-wise Analysis of Health Protection Gap:

Understanding the concept of medical inflation and the significance of sufficient health protection is notably observed among educated individuals, as reflected in the analysis. Education plays a pivotal role in comprehending the importance of insurance, and adequate health coverage alleviates financial burdens during healthcare emergencies.

Figure 4.7 - Education-wise Analysis of Health Insurance Protection Gap

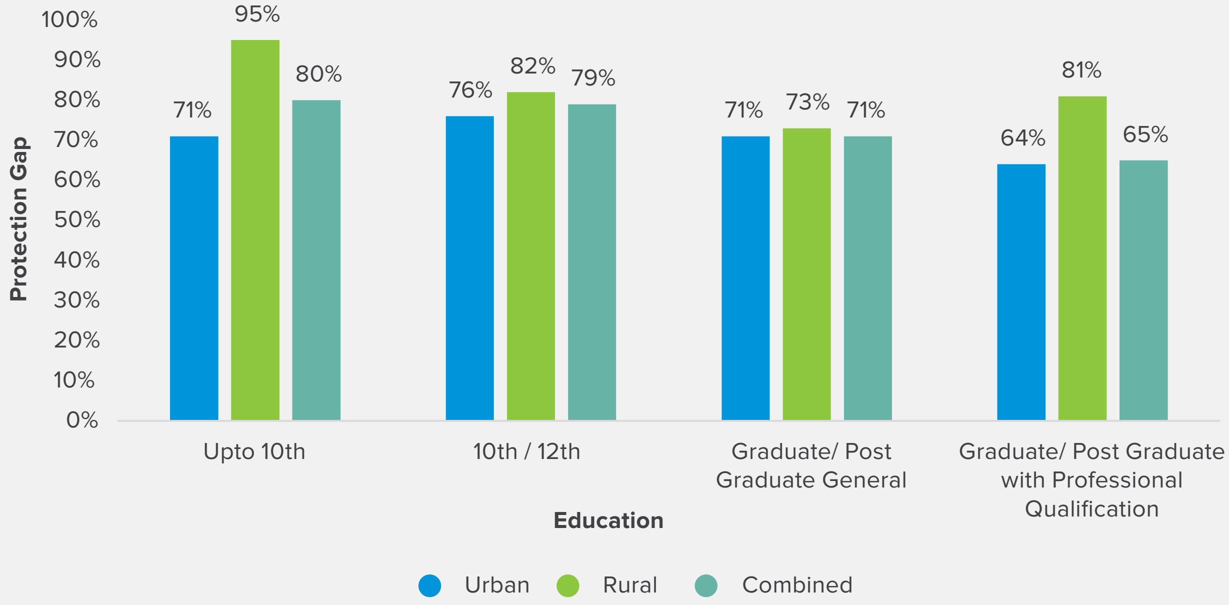


Figure 4.7 illustrates the correlation between customers' educational levels and the health insurance protection gap. The protection gap is notably lower (65%) among educated individuals, especially post-graduates and those with professional qualifications in urban areas. Conversely, individuals with lower education levels (high school or secondary education) exhibit a higher protection gap (80%). This discrepancy is more evident in rural areas compared to literate populations in urban areas.

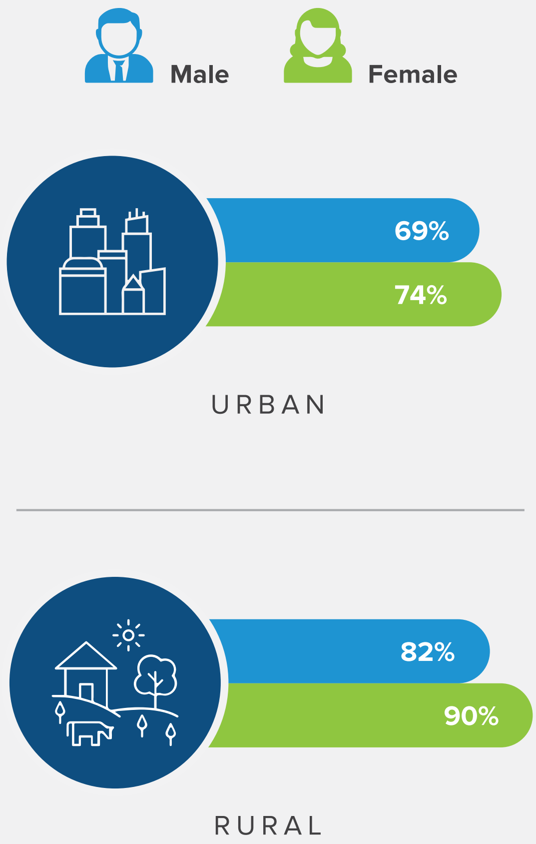
Thus, insurers and intermediaries must raise awareness about the significance of health insurance, emphasizing the necessity of adequate health coverage for families and individuals in rural areas, as well as for urban workers or those with lower educational qualifications. Introducing insurance as a mandatory subject in elementary/secondary education and employing appropriate regional language-based social media campaigns can effectively reach people in rural areas.

4.5 Region-wide Differences in the Health Protection Gap:

Healthcare spending varies across regions due to disparities in health care utilization and quality, hospitalization costs, and infrastructure availability.

Observations from figure 4.8 below, indicate a higher health insurance protection gap in rural areas 82 % for males and 90 % for females and 69% and 74 % in urban areas for males and females respectively.

Figure 4.8 - Region-wise Analysis of Health Protection Gap



Notably, the health protection gap is significantly higher among females, both in rural and urban areas, due to inadequate health coverage, lower insurance awareness, and limited healthcare access for rural women.

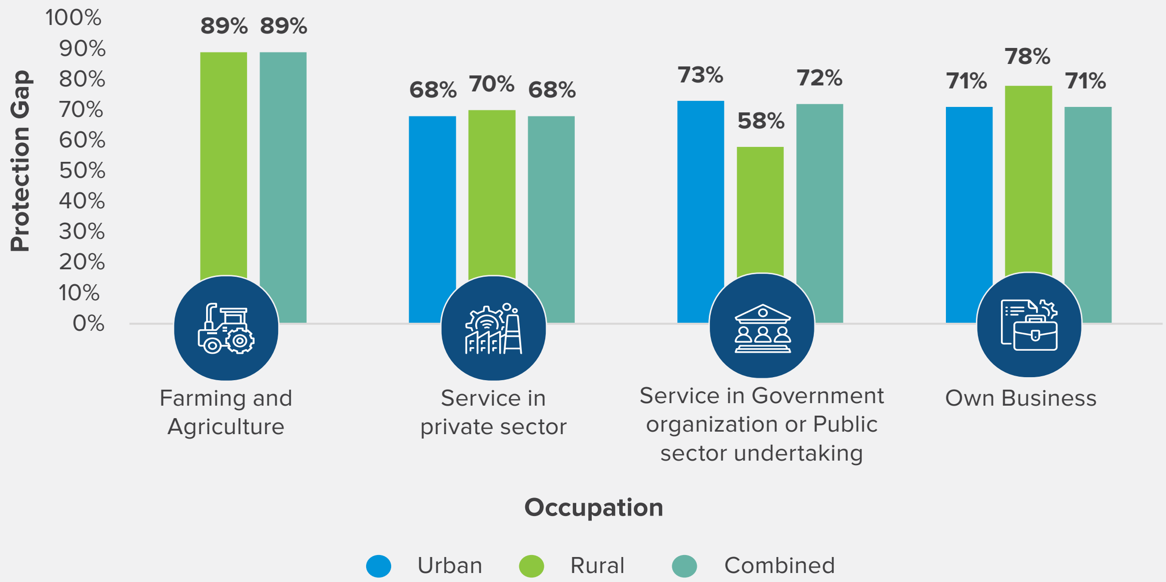
Insurers need to prioritize educating insured individuals, particularly women and girl children in rural areas, about the importance of sufficient healthcare coverage. Corporate initiatives promoting female employment should emphasize providing quality healthcare in the workplace. The central and state governments must collaborate with hospitals, pharma companies, and diagnostic centers and strengthen health infrastructure to provide quality healthcare for women and girl children in rural areas. This is vital to address the current lack of quality healthcare.

Considering the difference in types of illnesses and morbidity rates between genders, insurers could design exclusive, cost-effective health insurance plans for women due to their lower morbidity rates and higher life expectancy.

4.6 Occupation-wise Health Insurance Protection Gap

Occupation significantly influences the health protection gap. Variances in healthcare quality and infrastructure availability exist between urban and rural areas. Urban individuals employed in the Government, PSU sector, and large corporations usually benefit from corporate health insurance schemes. They also tend to have better insurance awareness and voluntarily opt for additional health coverage to protect their families.

Figure 4.9 - Occupation-wise Health Insurance Protection Gap



The analysis (Figure 4.9) reveals a notably higher protection gap of 89% among farmers or those primarily engaged in agriculture and allied activities in both rural and urban areas. This gap is largely due to many agriculture workers are not covered under the government health insurance scheme due to eligibility criterion or lacking awareness and affordability to purchase health insurance. Urban employees in large or mid-size corporate companies and government organizations exhibit lower protection gaps of 71% to 73% compared to the rural population, benefitting from group insurance schemes taken by their employer

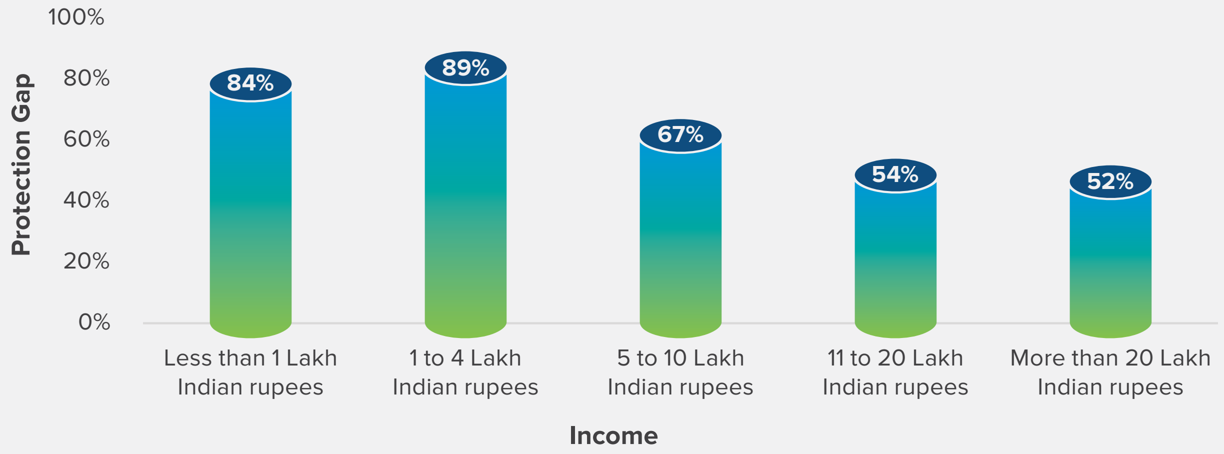
Similarly, workers in unorganized sectors and micro-small-scale organizations show higher protection gaps of 78% to 83%. Collaborative public-private partnerships between the government, NGOs, Farmer Federations, and Industry Federations are vital to introduce micro health insurance products with simplified features and affordable premiums.

Educational campaigns among corporates and individuals about the importance of health insurance and adequate family protection coverage with simple, low-premium products can significantly reduce the health protection gap. Insurers and intermediaries can encourage small micro and medium-scale industries to cover their employees with appropriate health insurance, while the government can offer tax incentives to corporates and encourage them to use their CSR funds to finance employee health insurance coverage.

4.7 Income-wise Health Insurance Protection Gap

The study highlights a direct link between an individual/household's income and the health insurance protection gap in both rural and urban areas. Affordability stands out as a major contributor to the higher protection gap in health insurance.

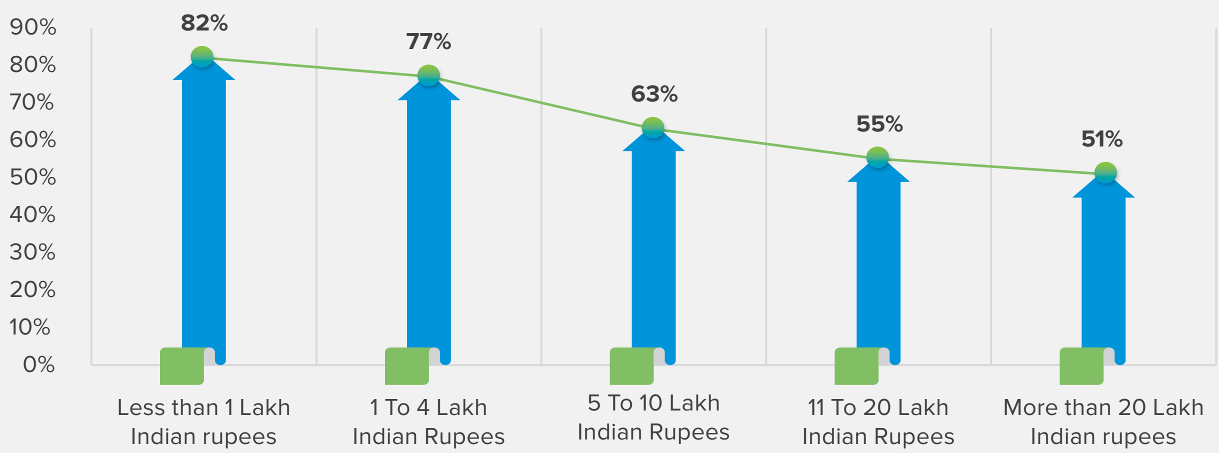
Figure 4.10 - Income-wise Overall Health Protection Gap



As it can be observed from the above figure 4.10, the protection gap is notably high, approximately 90%, among the lower-income group, especially those earning less than 5 lakhs annually. However, it significantly diminishes with higher income levels, notably among those earning more than 10 lakhs. This indicates that increased income, especially above 5 to 10 lakhs, substantially enhances the ability to purchase health insurance. Subsidies from the government and pharma companies can assist in providing premium support to low-income segments not covered by any health insurance scheme.

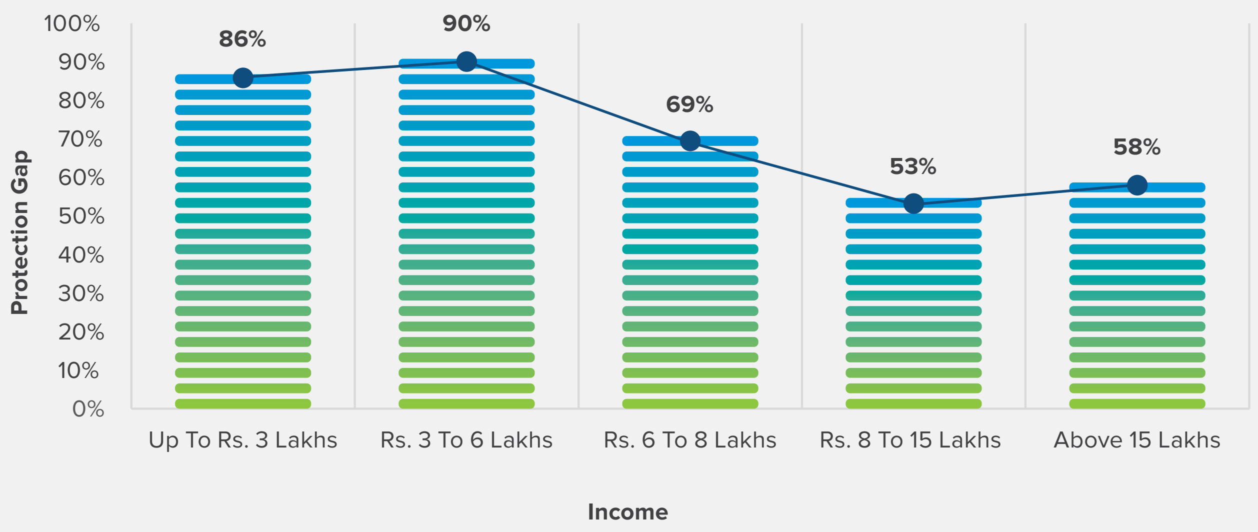
Similar trends are evident in both urban and rural areas.

Figure 4.11 - Income-wise Health Protection Gap - Urban



In urban settings, the average protection gap drops from 82% to 51% as the annual income increases from 1 lakh to 20 lakhs (Figure 4.11). Among lower-income urban segments (earning 1 to 5 lakhs annually), the protection gap ranges between 82% and 77%, reducing to 63% to 51% as income surpasses 5 lakhs.

Figure 4.12 - Income-wise Health Protection Gap- Rural



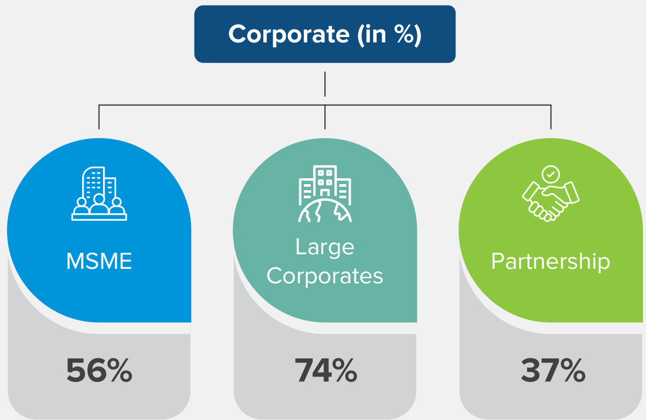
Comparable trends emerge in rural areas as can be seen from the above figure 4.12. Those earning less than 5 lakhs annually exhibit a considerably higher protection gap of 90%, dropping significantly to 53% when income exceeds 5 lakhs.

These findings underscore that affordability and awareness significantly influence the health protection gap. Varying healthcare needs, coverage, and morbidity levels among different income segments suggest the necessity for customised products with diverse coverage and healthcare facilities, offered at differential premium rates. Preventive care and wellness insurance can be offered as a complement to the high income segments. This approach could potentially enhance health insurance penetration among varied income segments and diminish the health protection gap.

4.8 Sector-wise Differences in Health Insurance Penetration:

Differences in health insurance penetration are evident across various organizational types, particularly large corporations, mid-sized, and small enterprises, as discussed earlier.

Figure 4.13 Health Insurance Penetration - Corporate



Observations from figure 4.13 reveal a higher penetration (74%) among large corporations and government-owned entities (PSUs & Government departments). In contrast, partnership firms exhibit a lower penetration (37%), while mid-sized and small-scale organizations, including MSMEs, show a moderate penetration at 56%.

The analysis shows that large corporates mandate health insurance coverage for their employees as part of their employment contract. Consequently, employees in these sectors are generally covered under their employers' group insurance schemes. Conversely, mid and small-scale industries, including MSMEs, lack formal health insurance coverage despite their employees having higher morbidity and accident risk exposure. Creating awareness among these organizations about the importance of adequate health coverage for their employees is crucial. Establishing captives or self-funding through corporate reserves to finance employee health insurance could be a viable solution.

Notably, many MSMEs lack proper health insurance coverage for their employees, resulting in a considerable health protection gap. Government and regulators could mandate a minimum level of health insurance coverage among small and medium-sized enterprises, including partnership firms and MSMEs, as part of their employment contracts.

4.9 Inadequacy of Health Insurance Coverage:

The inadequacy of health insurance coverage contributes significantly to the higher health protection gap. Given the rising healthcare costs and medical inflation, it's crucial to ensure appropriate coverage for individuals and their families, especially in the event of severe illness or critical diseases leading to disability or death. Our study delves into the assessment of adequate health coverage among insured individuals and corporates.

Figure 4.14 - Perception of Health Insurance Coverage

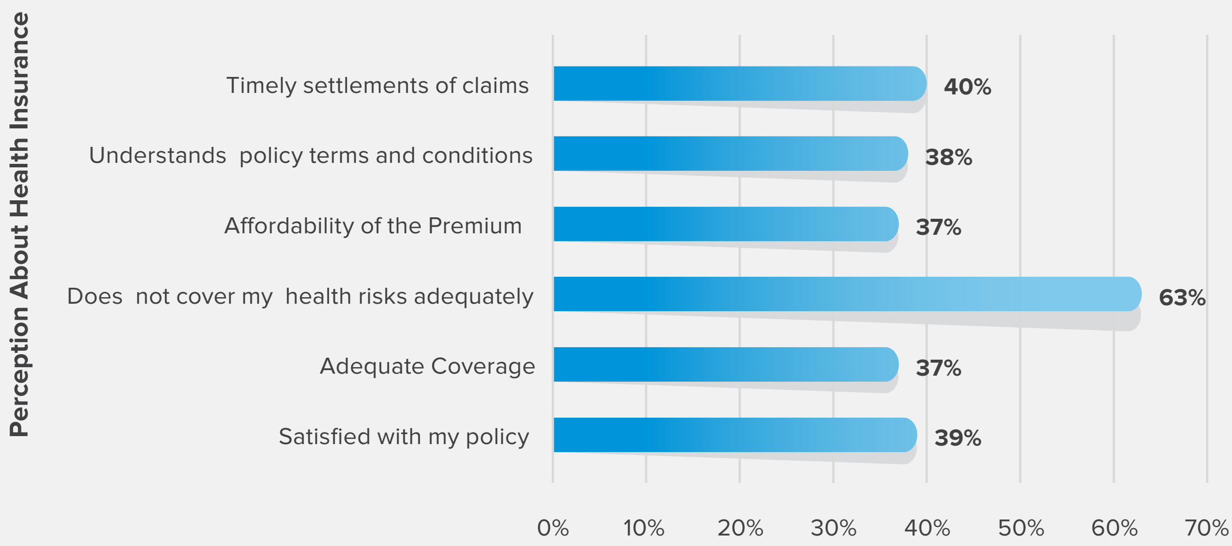


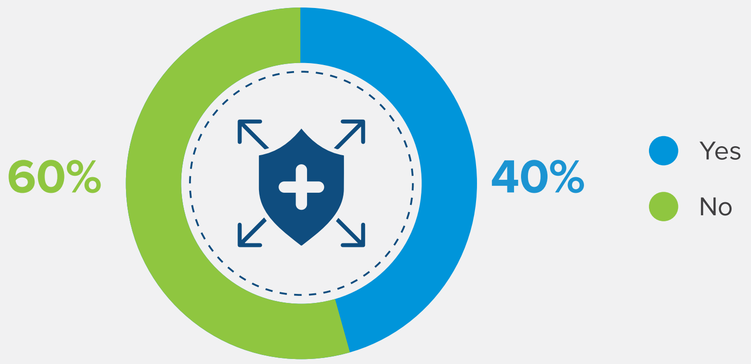
Figure 4.14 illustrates that only 37% of customers perceive their coverage as adequate, while 63% believe it falls short in addressing their risk exposures, considering escalating healthcare costs and medical inflation. Notably, 63% feel their current policy doesn't comprehensively cover their health risks. This gap in coverage includes the exclusion of OPD expenses, pre-existing conditions, dental care, mental health disorders, etc. Only 39% express satisfaction with their policy and 37% find the premium rates unaffordable. The analysis further uncovers that 62% find the product overly complex, with only 38% understanding the policy terms and conditions.

It's worth noting that approximately 63% lack sufficient coverage to meet their healthcare expenses, particularly within low- and middle-income segments. This highlights the primary reasons for insufficient coverage: lack of awareness, products not adequately addressing their risks, and affordability constraints.

4.10 Reasons for Limited Interest in Increasing Health Insurance Coverage:

Approximately 60% of individual customers do not feel the need to increase their health coverage.

Figure 4.15 - Intend to Enhance Health Insurance Coverage



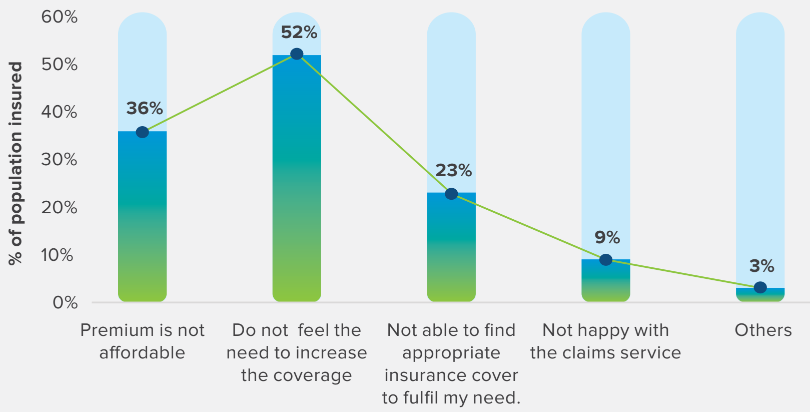
Only 40% express an intent to enhance their coverage in the near future. Understanding the reasons behind this lack of interest in increasing coverage becomes crucial.

4.11 Reasons for Limited Increase in Health Insurance Coverage:

The primary reasons for individuals not increasing their coverage are higher premium rates, inadequate coverage of health risks by existing products, and dissatisfaction with insurer claims settlement.

Figure 4.16 depicts the major reasons for the lack of interest in enhancing health insurance coverage. The predominant reasons include 52% feeling their current coverage is adequate, 36% finding premium rates unaffordable, and 23% mentioning products don't adequately cover their health risks. Additionally, 9% express dissatisfaction with the claims service offered by insurance companies.

Figure 4.16 - Reasons for not Increasing the Sum Insured



4.12 Perception of Corporate Customers Relating to Coverage Adequacy:

In corporate sectors, determining the health insurance coverage depends on various parameters, including the company's location, employees' average age, number of employees, their residential area, current health conditions, family size, and local healthcare costs. Specialized care or surgeries can significantly escalate healthcare expenses.

Figure 4.17 - Corporate Customer's Perception of Coverage Adequacy

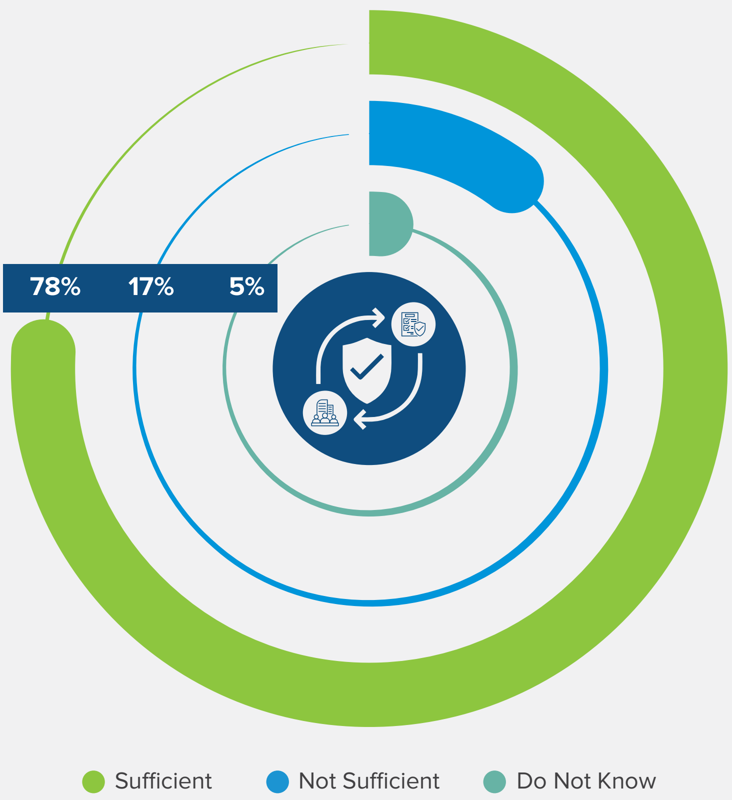


Figure 4.17 illustrates that the sum insured chosen for various employee levels by corporates isn't fully adequate. Despite this, the majority of corporate customers (78%) believe the coverage sufficiently addresses their employees' health risks.

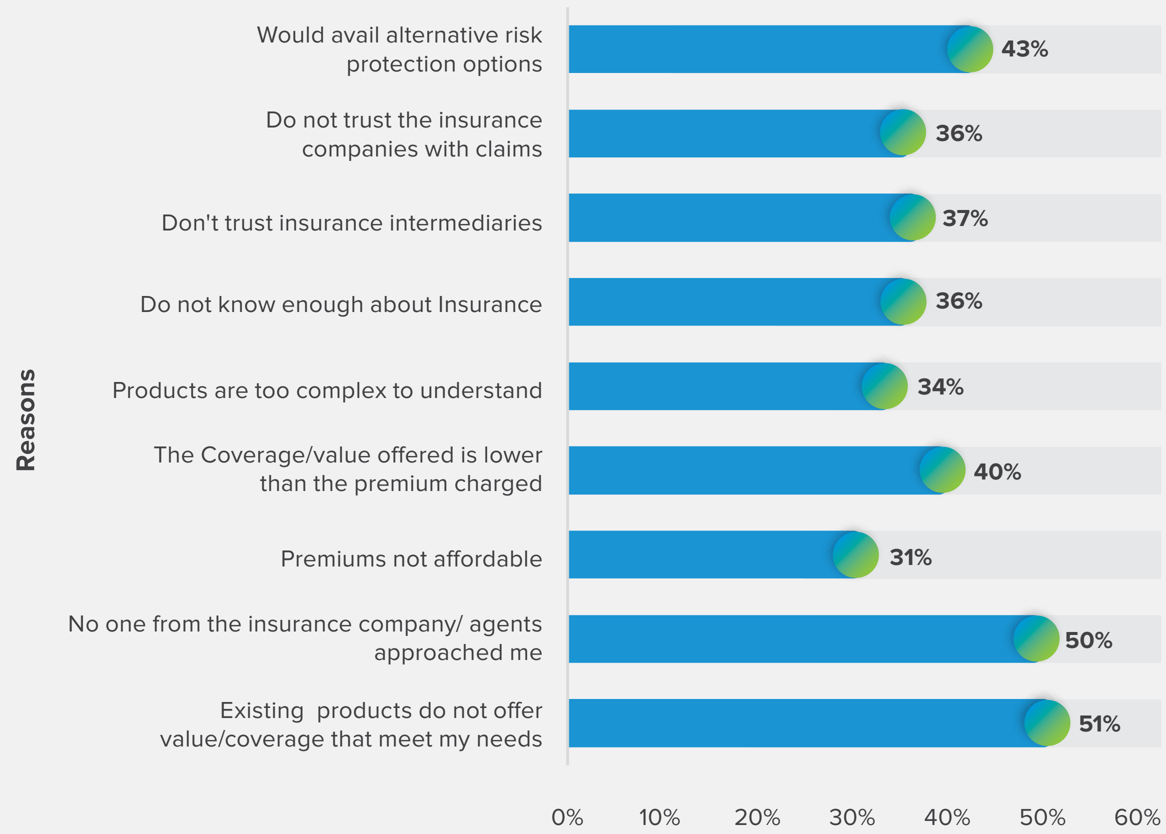
Large corporations and multinational companies generally provide comprehensive coverage, while smaller and medium-sized companies offer comparatively lower risk coverage, as discussed in previous sections.

Hence, insurers and the government need to educate employers about the importance of appropriate health insurance coverage (individual or floater) for employees, aiming to reduce the health insurance protection gap in the future.

4.13 Reasons for not Taking the Health Insurance:

Understanding why individuals and corporates avoid health insurance is crucial in addressing the higher protection gap.

Figure 4.18 - Reasons for not Purchasing Health Insurance Cover - Individuals

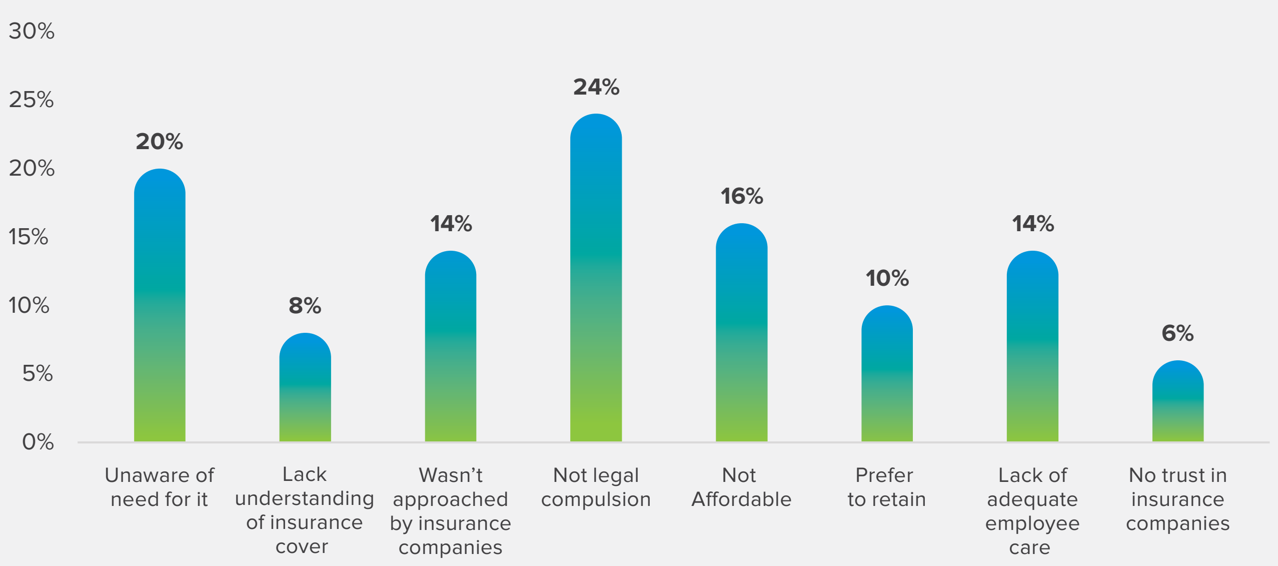


As indicated in figure 4.18 above, the major reasons for not buying health insurance among individuals include lack of awareness (36%), product complexity (34%), unaffordable premiums (31%), seeking alternative financing (43%), lack of approach (50%), insufficient value in products (40%), and inadequate health risk coverage (51%). Additionally, 37% does not trust insurance companies or intermediaries, while 36% doubt the insurers' claims payment.

Insurers should simplify products, communicate the coverage's importance, and utilize digital channels to reach low-income and less-educated rural areas, making premiums more affordable. Collaborations with smaller companies and NGOs/ SHGs to establish low-premium micro-insurance could enhance penetration.

Major reasons pointed out by the corporate customers for not taking health insurance coverage for their employees are stated below in figure 4.19.

Figure 4.19 - Reasons for not Taking Health Insurance - Corporates



The above figure 4.19 indicates the reasons for corporations not providing health insurance including non-mandatory obligations (no legal compulsion), a lack of perceived necessity to cover employees, inadequate employee care, and concerns about increased operational costs due to higher premiums. Other reasons encompass insufficient product knowledge, complex product coverage, self-funding preference, and mistrust of insurance companies.

Insurers must improve the awareness among employers about the importance of employee health protection. Collective efforts among insurers, regulators, and intermediaries are essential to encourage small and medium-sized companies to cover their employees against morbidity risk. Bundling health insurance with other groups and retirement benefit schemes may significantly reduce the health insurance protection gap amongst workers.

4.14 Key Findings and Suggestions:

High Health Protection Gap:

The health protection gap stands at 73%, significantly high despite increased insurance awareness. Over 40 crore individuals, constituting 31% of the population lack health insurance due to lower penetration, coverage inadequacy, and rising healthcare costs.

Reasons for Low Penetration:

Factors include low perceived need for insurance, lack of product understanding, unavailability of customized products, high rates, and limited accessibility to customers.

Savings Linked Long Term:

Savings Linked Long Term health insurance for the individuals would help improve penetration among the young and middle-aged people.

Customized Health Insurance Products:

Varied risks across different age groups, genders, and occupations emphasize the need for customizing the products meeting specific health care requirements, such as wellness-centric covers for the young and family protection for millennials etc.

Targeting Women with Tailored Products:

Low penetration of women policyholders requires specialized health insurance for women, considering their unique health risks and life expectancy.

Encouraging Preventive Health Practices:

Offering OPD covers and fitness-related health services can improve customers' health while reducing claims costs.

Developing Mental Health Cover:

The rising incidence of mental disorders among young people calls for specialized mental health insurance to address issues like depression and anxiety.

Long-term Critical Illness Cover for the Elderly:

As the elderly population is expected to grow, there's a need for a long-term critical illness cover for them with extended premium payment options.

Sensitizing Less-Educated Populations:

Awareness campaigns targeted at less-educated rural and urban demographics are critical to promoting health insurance.

Micro Health Insurance for Unorganized Sectors:

Collaboration between government, NGOs, and industry groups is essential to create micro health insurance with simplified products for better financial inclusion.

Educating Corporates and Employees:

Corporates, especially small to medium-scale industries, should be encouraged to provide health insurance to their employees. Government incentives, tax benefits, and CSR funds can aid this initiative.

GST and Premium Waivers:

Waiving GST on premiums for low-income and unorganized sector workers could encourage their health insurance coverage, coupled with discounts for the elderly.

Differential Coverage for Income Segments:

Products tailored to income levels should be developed, offering various coverage and healthcare facilities at different premium rates to boost insurance penetration.

Role of Insurers and Brokers:

These stakeholders play a crucial role in influencing customer perceptions. They should engage with clients throughout the insurance process, from understanding requirements to claims settlement, improving protection adequacy.

Claims Services Improvement:

Enhanced claims services, simplified claims processes, and expedited claim settlements are pivotal for customer satisfaction.

Premium Discounts for Lower Claims:

Reward customers with lower claim ratios by offering premium discounts or increased coverage as an alternative to no-claim bonuses.

Offering Cashless Facilities:

Providing cashless facilities in all types of hospitals will ensure a hassle-free and cost effective medical treatment for customers

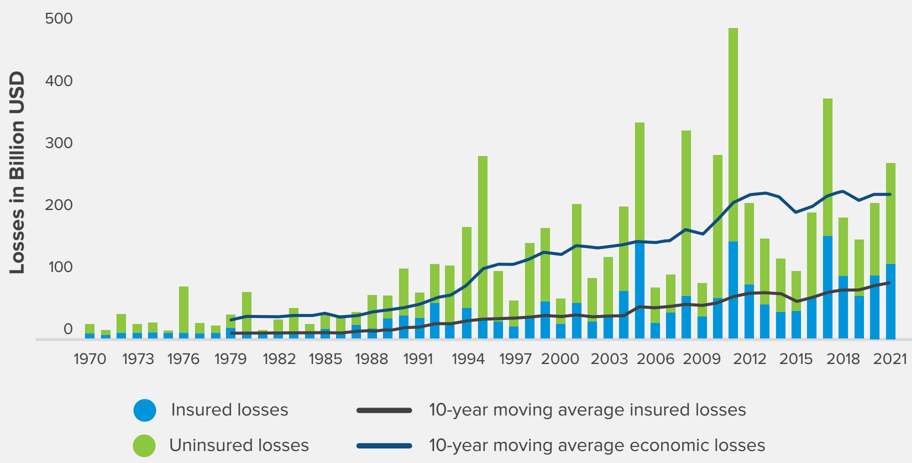
5. PROPERTY INSURANCE

5.1 Introduction:

Climate-induced natural catastrophes significantly impact our economy, resulting in substantial losses, over 70% of them are due to weather related perils (World Meteorological Organization, 2021). Over the past five years, the disaster losses have nearly doubled, surpassing a global annual loss of over US$230 billion. Despite this, only 7% of catastrophic losses are insured, highlighting a 93% property insurance protection gap in India (Swiss Re, 2022). With a low general insurance penetration rate of 1% and a density of $20, major sectors of our economy remain underinsured.

Urbanization, especially in tier-2 and tier-3 cities due to rural-to-urban migration, escalates disaster risk exposures, further increasing property insurance losses. Recent studies by Swiss Re show a substantial widening of the protection gap in property insurance over the years 2010-2022.

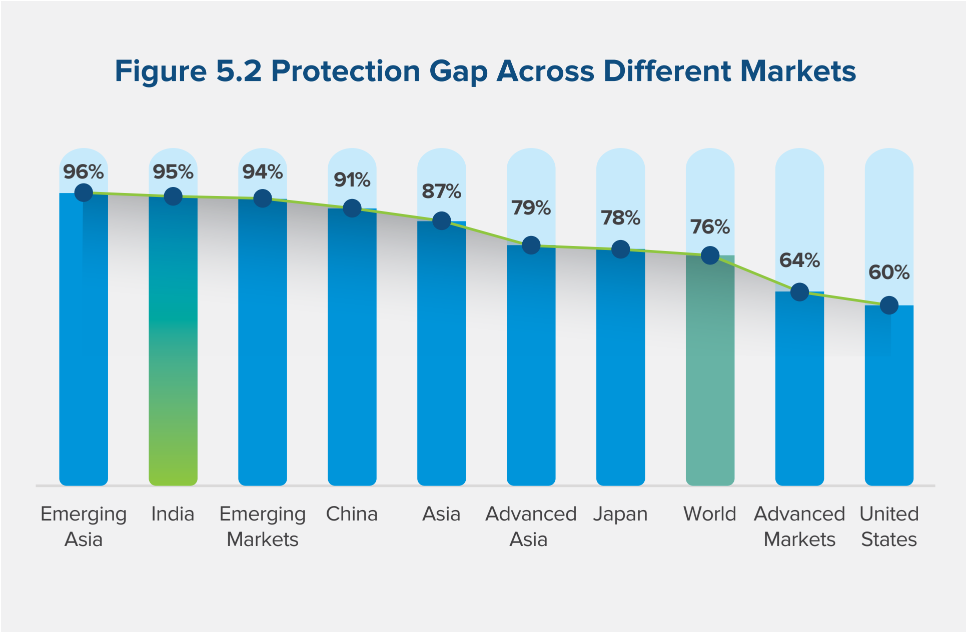
Figure 5.1 Increasing NatCat Protection Gap (1970 - 2021)



Economic losses = insured + uninsured losses.

Source: Swiss Re Institute

Most catastrophic losses in India, approximately 70%, are weather-related – including convective storms, droughts, and floods – causing higher volatility in insurer losses and complicating reinsurance structures (Swiss Re, 2022). Munich Re's analysis indicates that 91% of India's natural catastrophe losses result from weather-related perils, with over $158 billion in economic losses, of which only $9.1 billion were insured. The protection gap exceeds 90%, primarily driven by climate risks, infrastructure development, and urban population migration.



Source: Swiss Re sigma June 2022, Resilience Index 2022: risks to resilience on the rise again after a year of respite

Source: Swiss Re Expertise Publication, Jan 2023, India's insurance market: poised for rapid growth

As seen in Figure 5.2 above, comparatively, India exhibits the highest property loss protection gap among emerging markets, significantly surpassing the global average of 76%. Most developed markets maintain protection gaps between 40% to 60%. It's imperative to investigate the reasons for the escalating protection gap in India and identify measures to mitigate it.

5.2 Property Insurance Business in India:

The Fire Insurance segment has experienced consistent growth in recent years. Following the revised premium rates by the Insurance Information Bureau (IIB), this segment witnessed a significant surge, exceeding 300%, with the premium amount reaching Rs. 23,933.46 crore for 2022-23, compared to Rs. 7,362.63 crore in 2013-14.

Figure 5.3 Growth of Property Insurance (2001 - 2022)

Source: IRDAI Annual Reports

Motor Insurance remains a dominant segment contributing substantially to the property insurance business in India. With a consistent Compound Annual Growth Rate (CAGR) ranging from 10% to 14%, the segment achieved a premium volume of Rs. 81,291.68 Crore for the year 2022-23. Given the escalating property values and increased urban migration, this segment holds promising potential for future growth.

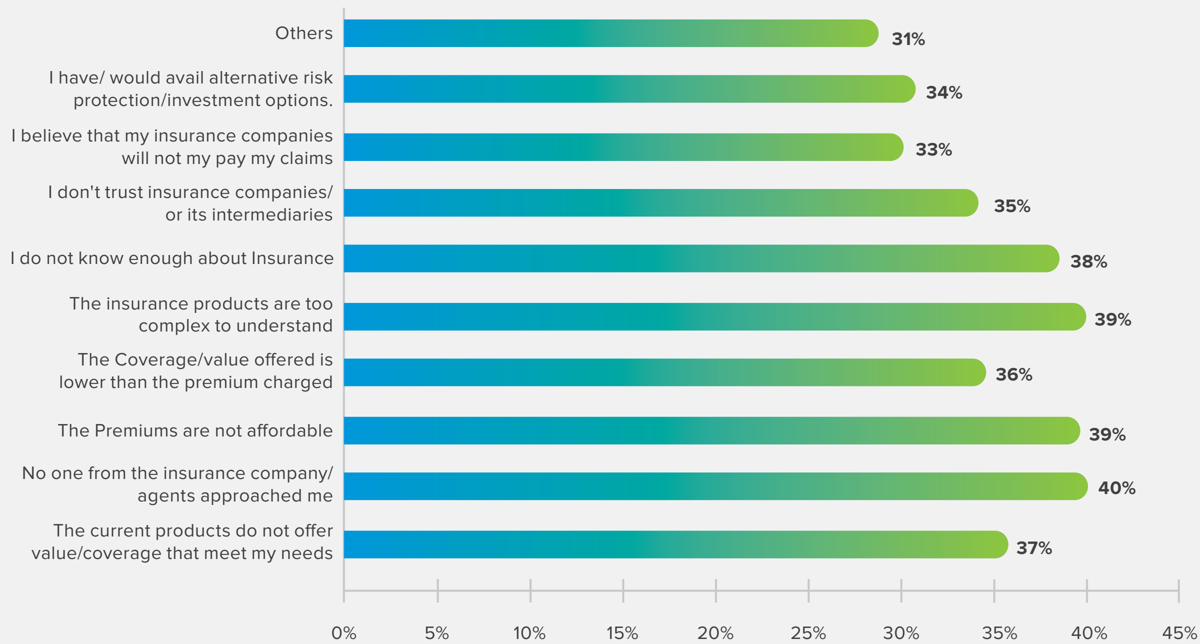
While the individual housing segment exhibits steady growth, the coverage of home insurance remains relatively low. The following section will delve into the primary reasons for this low awareness and penetration.

Property insurance premium includes fire, motor, engineering and miscellaneous insurance

5.3 Low Awareness and Penetration:

The Home Insurance Market in India encounters several challenges despite its growth potential. Amongst the significant challenges, low awareness and penetration of home insurance is one of the major one in the Indian market. Our study reveals that majority of individuals cite **'not perceiving the need for property protection'** and **'lack of awareness about the product'** as the primary reasons for not purchasing home insurance as depicted in Figure 5.4 .

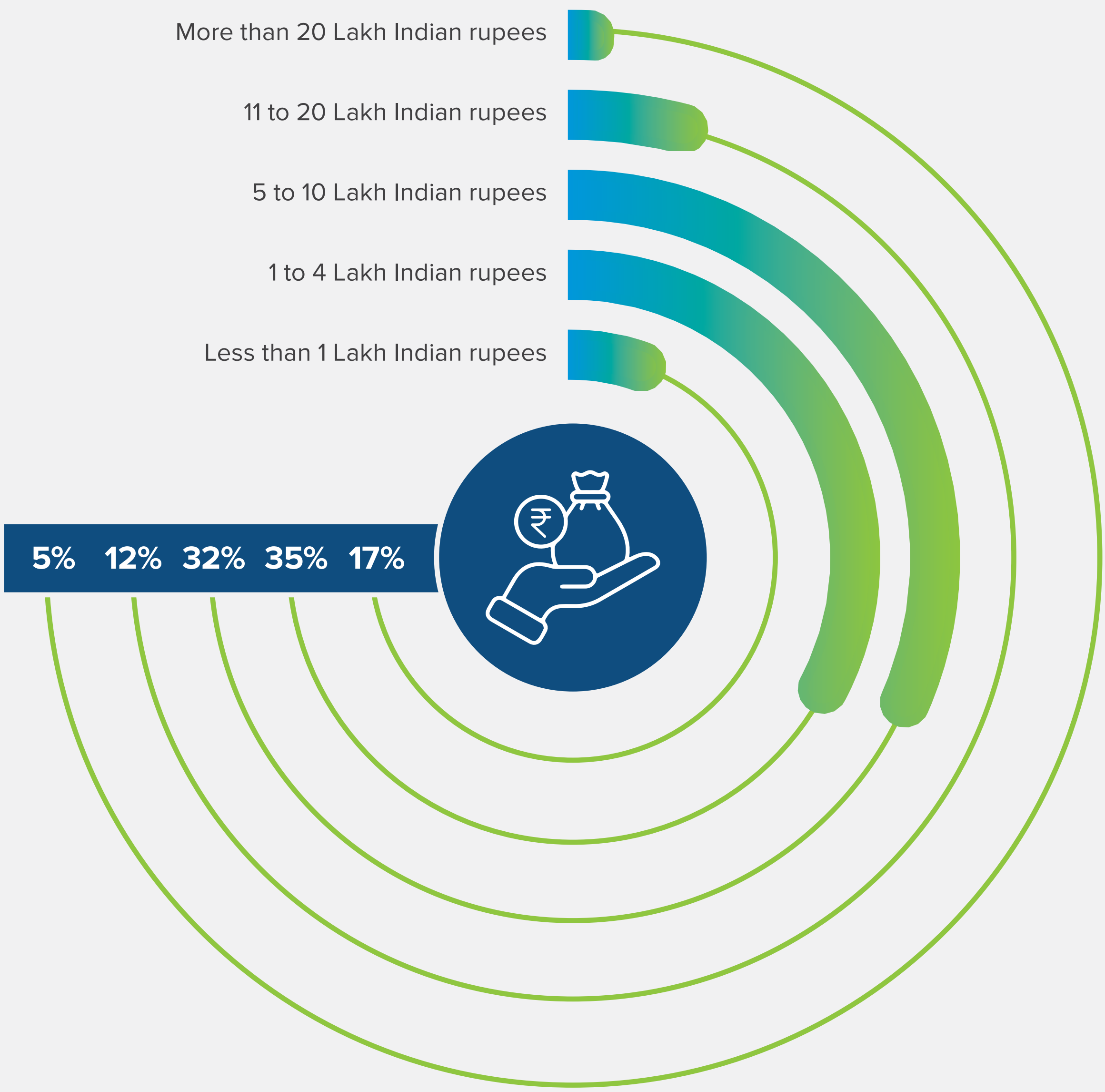
Figure 5.4 Reasons for not buying property insurance - Individuals.

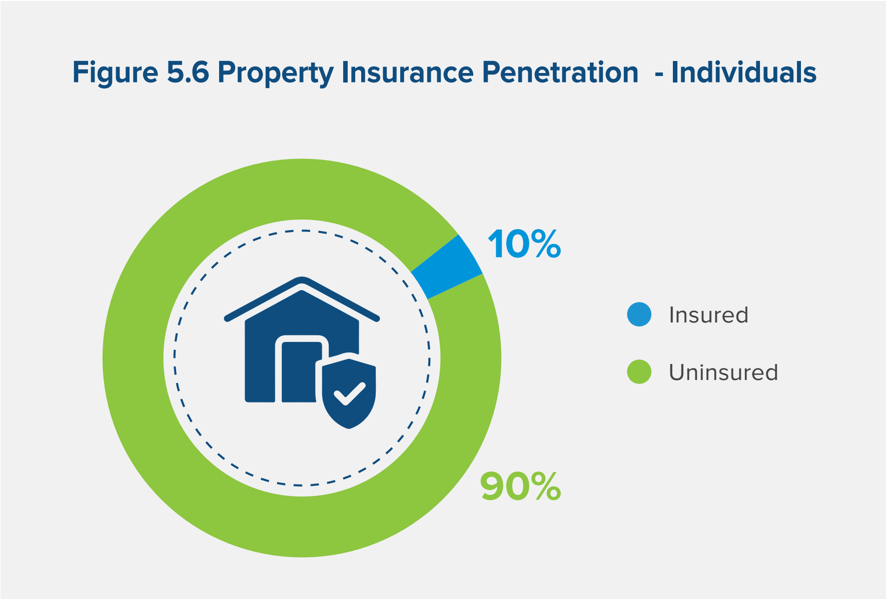


Considerable number of people do not purchase the home insurance policy due to **high premiums.** Nearly **39% of the respondents** perceive that the premium is not affordable for them. This is true for the people who are in the low- and middle-income segment with their annual income less than 10 lakhs, where more than 80% are not insured. Secondly, 39% of the individual customers opined that the **products are too complex** and no one from the insurance company explained them about the importance of the product. More importantly, **Lack of adequate product knowledge** (38%) is also another major reasons for them for not insuring the property insurance. 37% perceive that the **current products do not offer them superior value**, and **do not trust** the insurance company (35%) are some of the major reasons for not buying property insurance.

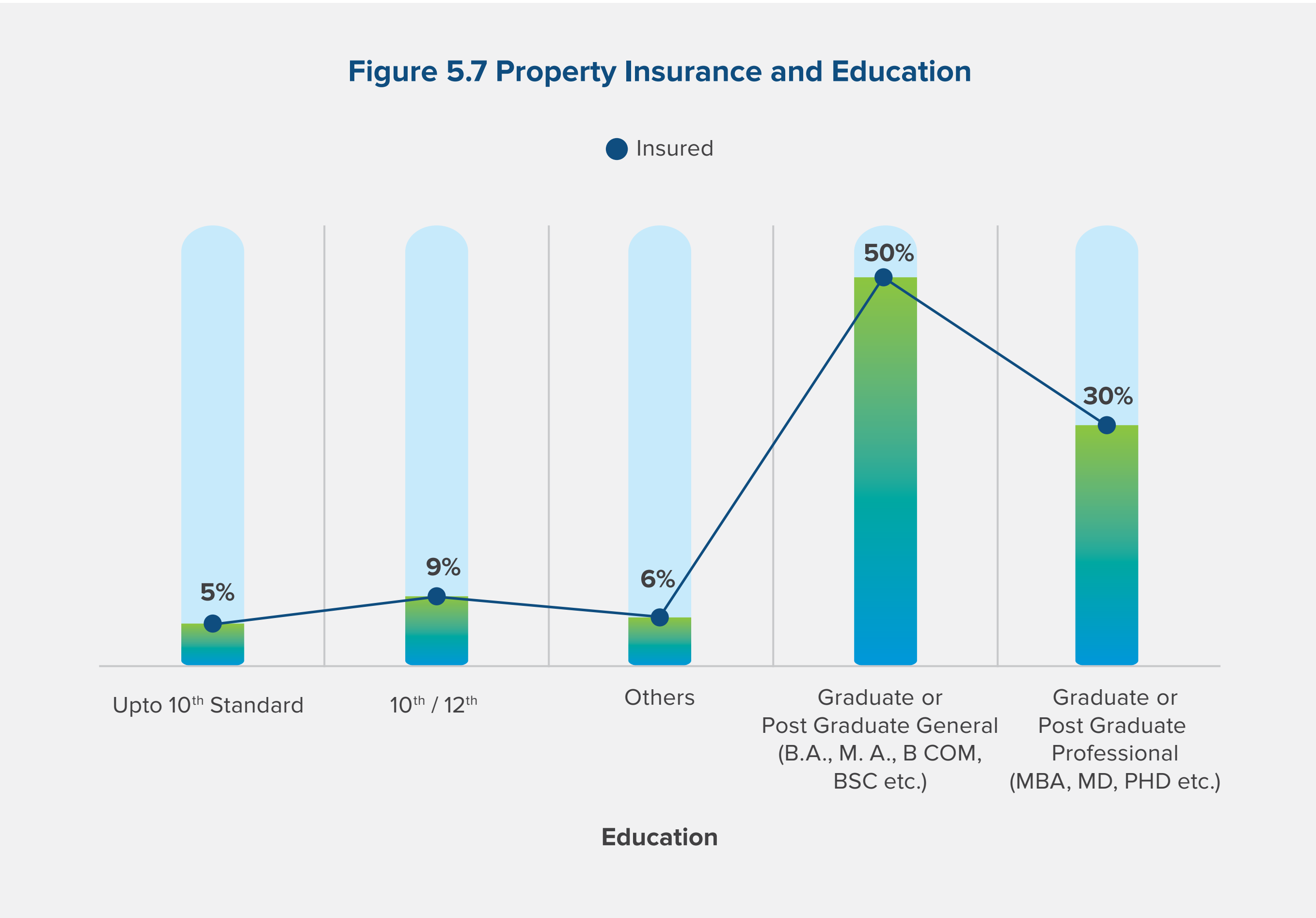
Notably, a significant percentage (83%) within the lower and middle-income brackets (less than 4 lakhs and 5-10 lakhs) do not possess any property insurance, as illustrated in Figure 5.5: 'Distribution of Uninsured Across Different Income Levels'. Similarly, a considerable number of respondents in upper-middle to high-income brackets (10 lakhs to 20 lakhs and above 20 lakhs) do not perceive the need for property insurance. Only about 14% have purchased home insurance or standard fire insurance, leading to a comparatively low penetration rate compared to other countries.

Figure 5.5 Distribution of Uninsured Across Different Income Level





Very low penetration is evident among individuals as indicated in the fig 5.6. About 90%, Individual home owners remain highly vulnerable to climate change - related risks including Fire and allied perils (uninsured or do not have any kind of protection against the NATCAT perils) and mere 10% possessing property insurance. Insurers and intermediaries must prioritize educating these residents on increasing NatCat exposures to protect their properties and assets adequately.

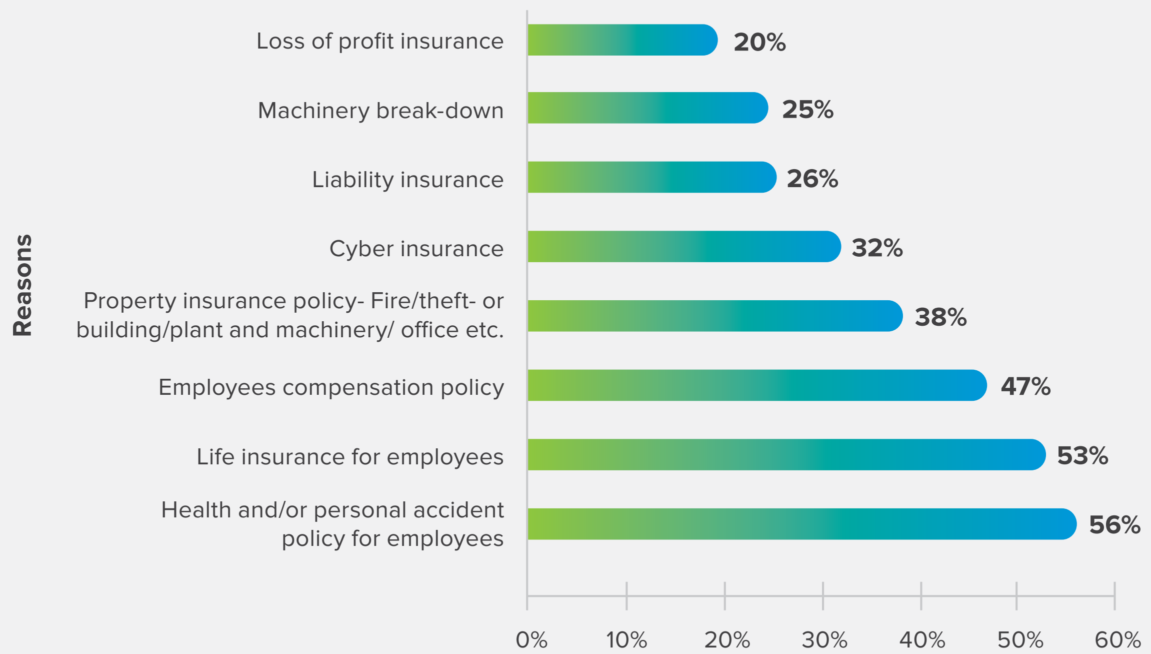


Education plays a vital role in making the individual customers understand the value and importance of property insurance . Figure 5.7 illustrates higher property insurance penetration among individuals with post-graduate (50%) and professional qualifications (30%), while those with lower educational grades (less than 10%) exhibit notably lower penetration.

5.4 Higher Penetration among Corporate Customers:

A significant proportion of corporate customers (38%), particularly from large and mid-sized companies, possess property and casualty insurance. Figure 5.8 below illustrates that nearly 56% of these customers have opted for Group Health, Life & Accident Policies, followed by Employees' Compensation (47%), Property Insurance (38%), Cyber Insurance (32%), Liability and Machinery Breakdown (25%), and Loss of Profit Insurance (20%).

Figure 5.8 Products Taken by the Corporate Customers



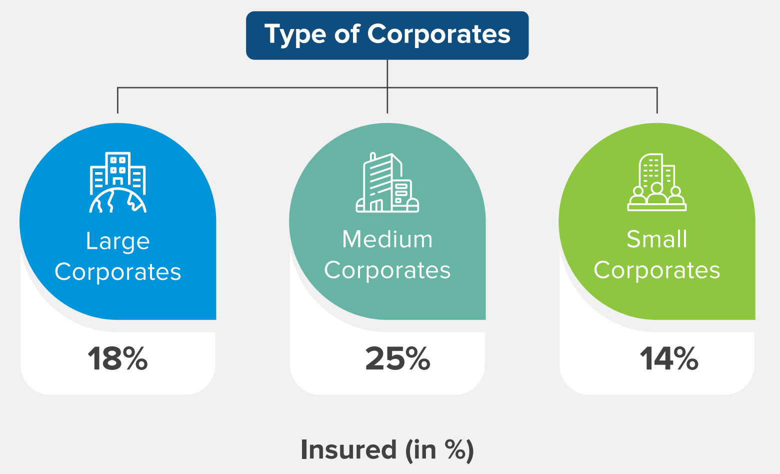
There has been a notable surge in the purchase of Cyber and Liability Insurance in recent times. Moreover, many have expressed their intention to increase coverage under these categories in the near future based on their requirements. It's noteworthy that **38% of corporate customers have acquired fire insurance** (property insurance), primarily prevalent among large corporates. This highlights a substantial potential for property insurance, especially among customers from small and medium-sized companies, including MSMEs.

5.5 Industry/Sector Wise Penetration of Property Insurance:

Figure 5.9 below demonstrates that approximately 43% of corporate customers from large and medium-scale industries have obtained various types of property insurance, including engineering , machinery breakdown, and loss of profit cover for protecting their risk exposure.

However, a significant percentage (86%) of customers in Small and Micro Sectors (SMEs) do not possess any form of property insurance. This lack of penetration indicates the need to educate corporate customers, especially those situated in disaster-prone regions, about the significance of protecting their assets from natural catastrophic and other fire and allied peril. Similarly, it's essential to advise customers from large corporates to consider obtaining property insurance for adequate sum insured and coverages.

Figure 5.9 Property Insurance Penetration - Corporate



5.6 Individuals Perception about Property Insurance:

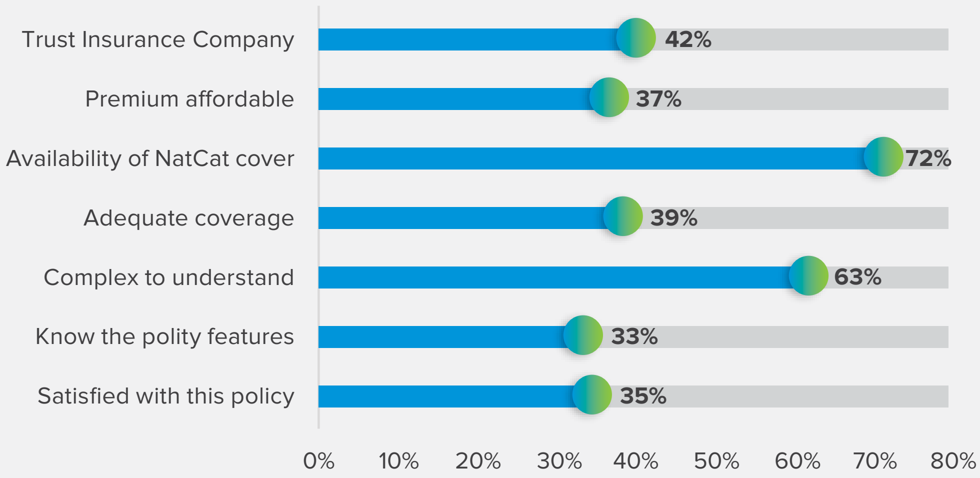
Figure 5.10 Property Insurance Penetration among the Individuals

A vast majority of individuals (90%) currently lack any form of property insurance as depicted in fig 5.10, to protect their property and household articles from fire and allied perils and natural disasters. Even among those who have acquired coverage, more than 90% would have done so due to the obligation of housing loans from banks.

5.7 Corporate customers Perception about Property Insurance:

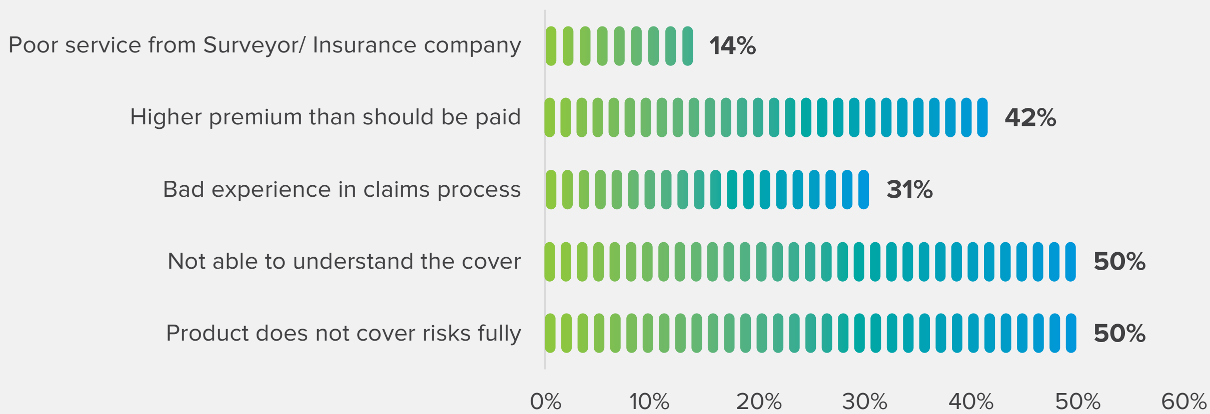
There are several perceptions about property insurance prevails amongst the corporate customers. Some of the important perceptions are presented in the figure 5.11. **Among the corporate customers who have acquired property insurance, primarily fire insurance, only 39% feels that the coverages are adequate against the perils offered under the policy. 72% perceives that the NATCAT cover is available.**

Figure 5.11 Corporate customers Perception about Property Insurance



Around 63% find the products too complex to comprehend, with only 33% able to understand the key features of the policy. While only 35% are satisfied with their policies meeting the needs, and 42% have had positive experiences with insurers and trust the insurance company. Approximately 37% of customers find the premiums affordable.

Figure 5.12 Corporate Customers Perception about Coverage of Property Insurance

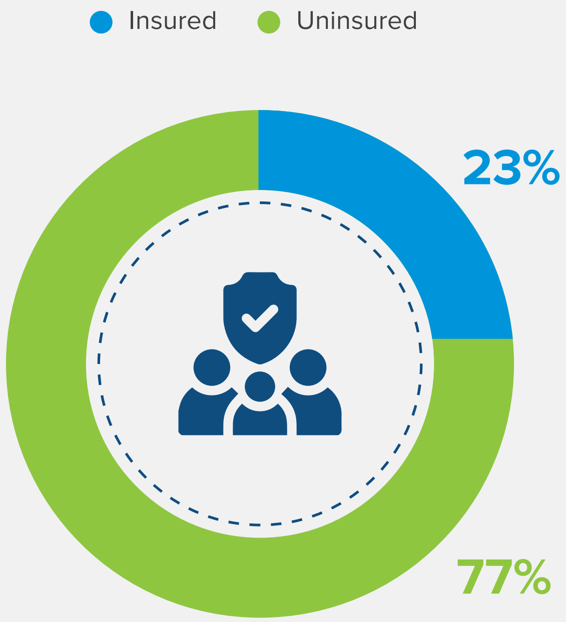


About 42% of the customers perceive premium rates have increased recently. The primary reasons for this increase in property insurance rates could be the escalating exposures to natural catastrophes due to climate risks and increased claims liability. Additionally, the Insurance Information Bureau (IIB) has recently introduced industry/occupancy-based burning cost rates derived from historical claims experiences. Property underwriters are expected to adhere to these rates as the minimum industry benchmark, potentially contributing to the rise in property premium rates.

5.8 Protection Inadequacy is Increasing:

A considerable portion of individual customers (63%) hold the view that the current policy's sum insured is inadequate to cover the escalating disaster risks exposure. This sentiment is particularly strong among customers residing in urban areas and disaster-prone regions. Conversely, individuals from tier-2 & 3 cities and rural areas often believe that the current policy adequately covers their needs, finding no necessity to increase the sum insured.

Figure 5.13 Penetration of Property Insurance in Coastal Region



Very Low penetration is particularly evident among individuals living in Coastal regions as presented in the fig 5.13 below. **Nearly 77% Individual home owners living in coastal regions remain highly vulnerable to climate change-related risks (uninsured or do not have any kind of protection against the NATCAT perils) and mere 23% are only covered under property insurance.** Considering the importance of climate risk mitigation, all the stakeholders particularly , state government and NDMA (National Disaster Management Authority) along with Insurers, Reinsurers and intermediaries must make **Catastrophic risk insurance mandatory and provide premium subsidy** for those vulnerable strata of the population.

5.9 Major Reasons for Lack of Adequate Coverage of Property Insurance:

Primary reasons for insufficient property insurance coverage among corporate customers include higher premium rates (42%) and inadequate coverage of their risks (50%), as indicated in the chart 5.12.

Other major factors contributing to inadequate coverage among insured customers are the unavailability of single-peril catastrophic cover, particularly in areas vulnerable to disasters, lack of understanding about property insurance coverage, insured perils, and exclusions.

Figure 5.14 Reasons for Inadequate Coverage Among the Insured Customers

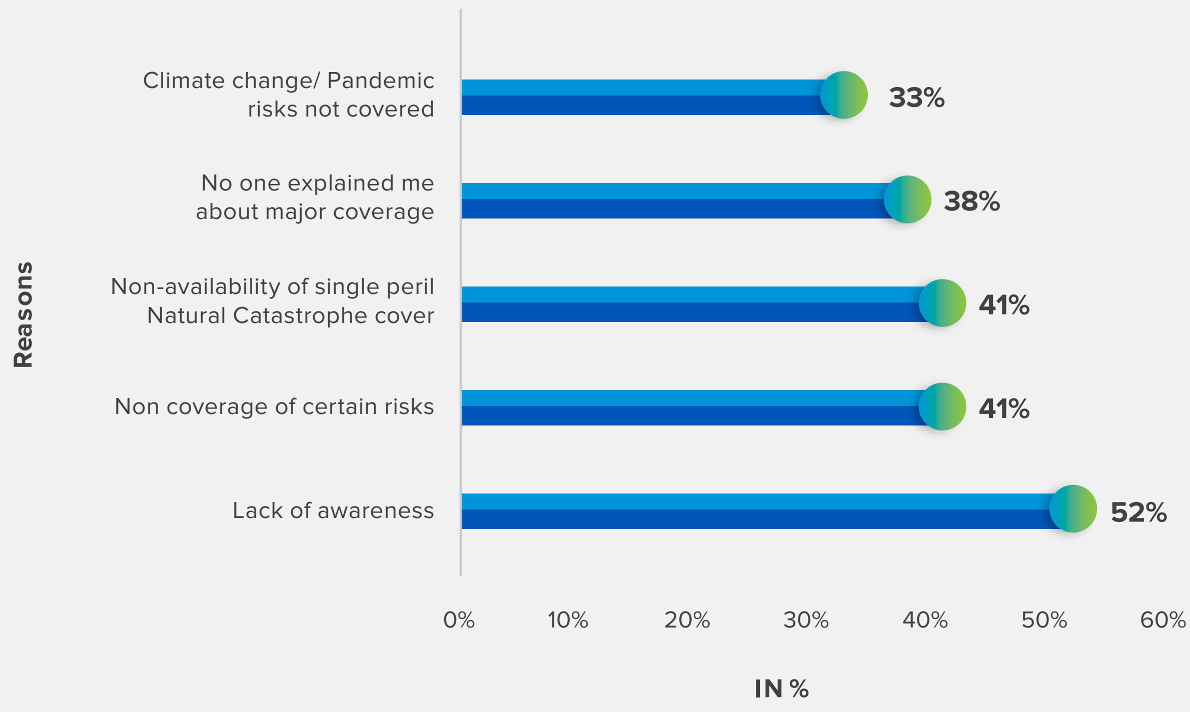


Figure 5.14 demonstrates that around 41% of respondents believe that appropriate single-peril catastrophic cover is currently unavailable, particularly in disaster-prone regions. Over 52% of individual customers express the lack of knowledge about coverage types, policy terms, and insufficient guidance from insurers and intermediaries. Nearly 33% feel that climate change-related and pandemic risks are not covered by existing products. Approximately 31% have refrained from increasing their policy coverage due to a lack of trust and negative claims experience with insurance companies, as highlighted in Figure 5.12.

Poor financial literacy among individual customers, a lack of understanding regarding the importance of insurance in protecting life and assets, and the perceived high cost of insurance discourage individuals from seeking coverage. Insurers and intermediaries need to focus on fostering greater product knowledge and changing customer mindsets.

Beyond mere awareness, it is crucial to educate customers on the importance of safeguarding their homes against natural calamities. It's concerning that even residents in coastal or disaster-prone regions do not recognize the necessity of protecting their properties.

Another challenge faced by the Property Insurance Market is the lack of customization across policies and coverage options in accordance with the risk profiles of the clients. The highly fragmented market lacks customised policies or guidelines for coverage, making it challenging for customers to compare policies and for insurance companies to differentiate their coverage options.

Insurers and Brokers play a significant role in fostering a positive mindset among customers by consistently engaging with them throughout the entire value chain - from understanding their requirements to claims settlement. Providing various value-added services such as customized risk covers, global wrap-up covers, risk management, and claims assistance can help clients recognize the value of insurance and improve protection adequacy.

5.10 Increasing Demand for HomeInsurance:

The home insurance market in India is influenced by various factors, among which rising property values stand as a significant driver. **With increasing property prices, homeowners are realizing the importance of safeguarding their assets through insurance. Moreover, events such as the COVID-19 pandemic and government initiatives like the Pradhan Mantri Fasal Bima Yojana (PMFBY) and the National Health Protection Scheme (PMJAY) have played a role in raising awareness about insurance, prompting more individuals to consider home insurance.** Heightened awareness of the risks associated with natural disasters, theft, and other unforeseen incidents is leading more people to consider purchasing home insurance. Our study shows that nearly 60% of respondents are interested in buying home insurance or property insurance to shield themselves against escalating catastrophic risks.

Advancements in technology have notably contributed to the growth of India's home insurance market. Online insurance platforms have made purchasing policies more convenient for customers, resulting in increased market penetration. Home insurance offers financial security in the face of unexpected losses, making it an appealing investment for many individuals.

Additionally, government Sustainable Development Goals initiatives and stricter regulations by the Insurance Regulatory and Development Authority of India (IRDAI) must encourage more customers to take adequate protection for their assets, liabilities and lives. Collectively, these factors are anticipated to sustain and propel the growth of India's home insurance market in the years to come.

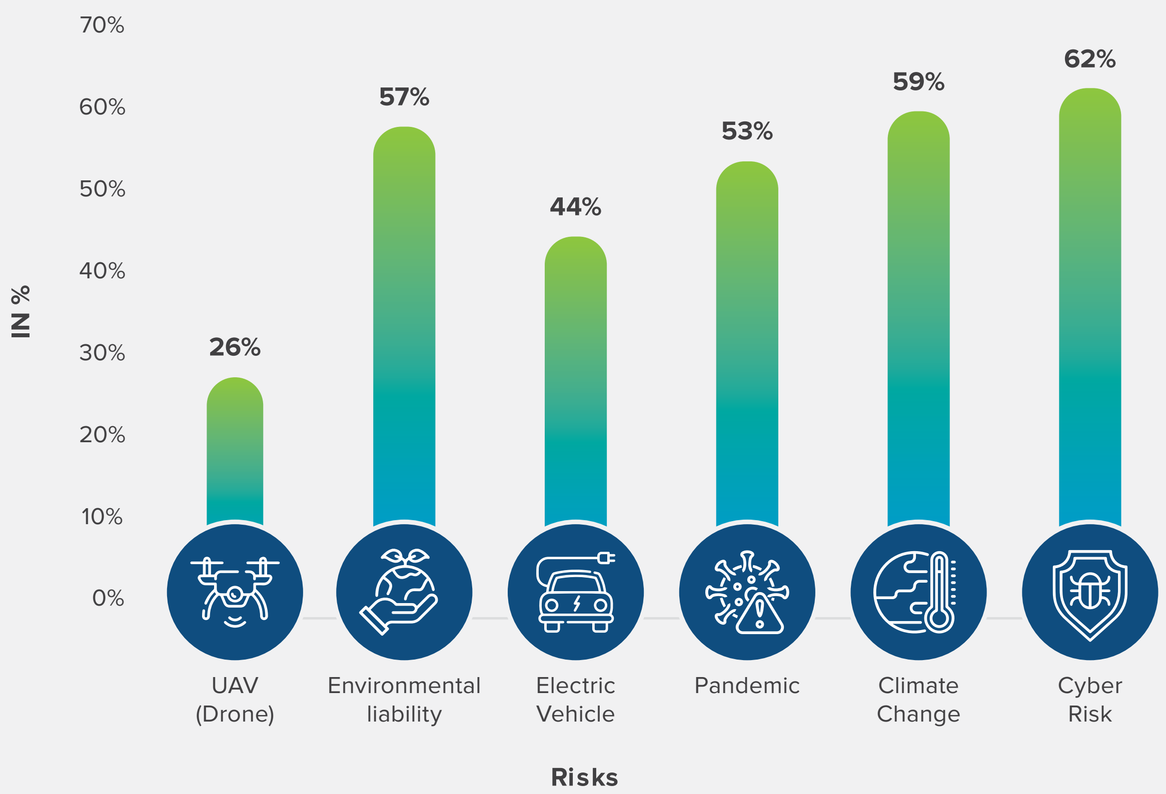
5.11 Widening of Product Gap:

The property insurance market in India is currently undergoing various trends that are significantly shaping the industry. **Approximately 56% of respondents perceive that climate risks, including pandemics, are not covered under existing products.** Moreover, many find the existing products complex to understand and not particularly appealing. They cover numerous standard perils, some of which may not be relevant to specific risks.

One prominent trend is the increasing demand for customized insurance products. Customers seek insurance tailored to their specific needs and preferences. Over 70% of customers demand customized home protection covers, specifically desiring single peril catastrophic cover.

Corporate customers exhibit a similar trend, seeking customized property insurance that includes various perils:

Figure 5.15 Risks to be Covered Under Property Insurance



More than 60% demand Climate Risk Insurance, including Pandemic-related covers and stand-alone Cat-peril policies (Flood/Cyclone, Landslide,

Additionally, 62% aim to protect against cyber risks through cyber insurance.

Around 57% express the need for Environmental Liability coverage, 44% for Electric Vehicle insurance, and 26% for Drone Insurance. These preferences complement traditional coverage like Machinery Breakdown, Liability Insurance, and Workman Compensation or employee benefit policies.

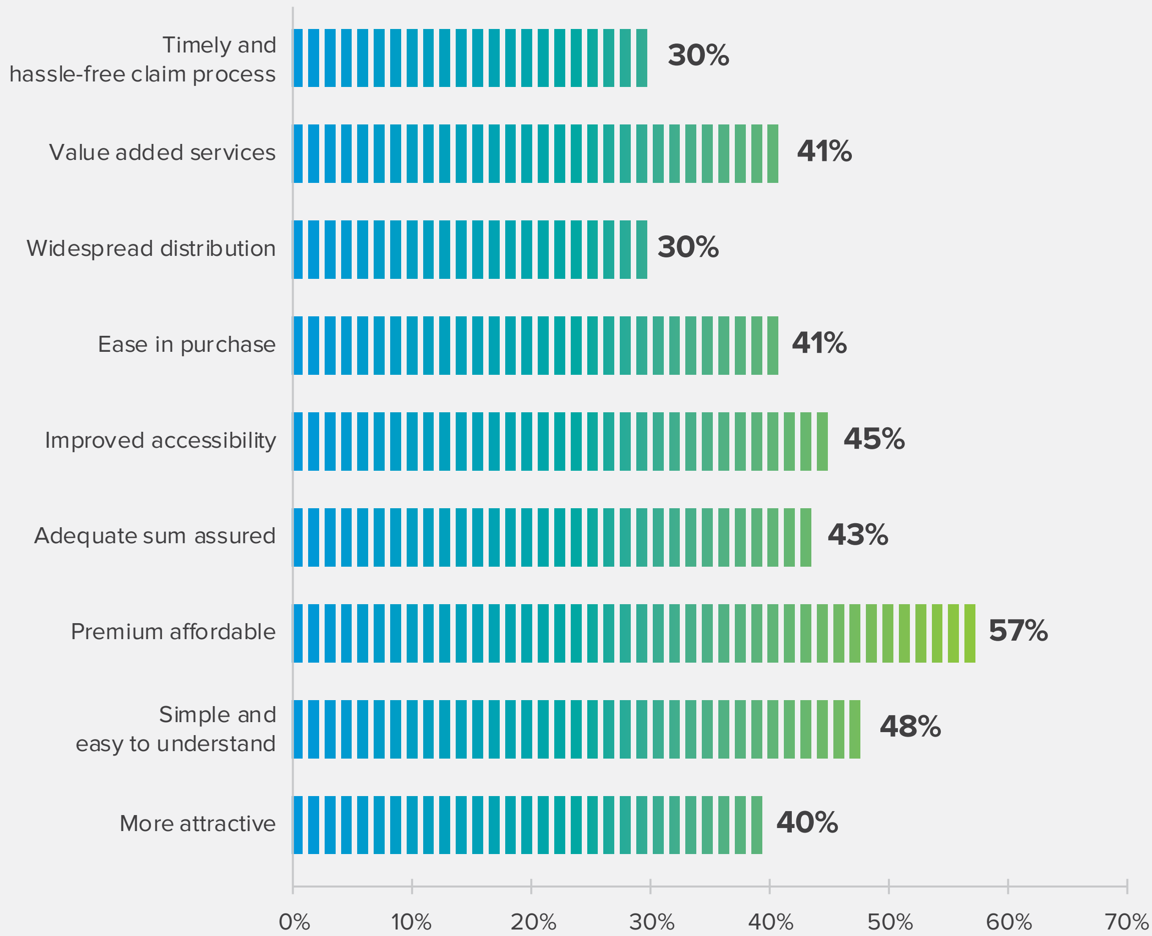
Another emerging trend in the Indian Home Insurance Market is the shift towards renewable energy, sustainable and eco-friendly homes. Customers are increasingly concerned about the environment and are actively seeking eco-friendly and sustainable housing. In response, insurance providers must develop insurance plans that cater to renewable energy and eco-friendly homes. This trend is projected to gain momentum in the forthcoming years as more customers become aware of the environmental impact of their homes and aim to reduce their carbon footprint.

Government, Regulators can incentivize the individuals and corporates who are making efforts in reducing the carbon footprints. Insurerer and Reinsurers can offer discounts or lower premium rates, encouraging the customers contribute towards carbon reduction.

5.12 Simplification of Insurance products:

Due to limited customer knowledge about insurance, it's essential to simplify insurance products by offering clear coverage, outlining exclusions, and providing terms and conditions that are easy to understand. The major insurance products, such as motor insurance, health insurance, and property/home insurance, should be customized, covering only essential perils based on customer feedback, as depicted in Figure 5.16.

Figure 5.16 Feedback and Suggestions to improve Property Insurance Products



As indicated in the feedback, efforts should be made to render premiums more affordable for a larger section of the population. Utilizing digital distribution channels, in addition to traditional methods, would facilitate reaching a more extensive customer base, potentially attracting more individuals to purchase the product.

Insurers must collaborate with the builders to bundle property insurance as a part of their housing package and secondly premium can be collected as a part of property tax. Government can make it mandatory for all the corporates, business houses and shopkeepers in disaster prone area through additional cess on property tax. Maharashtra was the first state to make fire insurance policy compulsory for shops and establishment. Other states can also make the insurance mandatory.

5.13 Need for Product Innovation:

Product Innovation in Property Insurance

Product innovation in property insurance in India still lacks standalone Climate Risk Insurance. Presently, the available standardized property insurance includes standard fire perils, STFI perils, and built-in terrorism coverage, contributing to relatively high premiums. Customized NAT CAT protection based on regional disaster risk profiles is necessary at lower costs. Implementing parametric-based and embedded insurance solutions can simplify transactions, enhancing customer service. Bundling home insurance with property purchases and lifestyle products like televisions and refrigerators presents an opportunity for expanding the insurance penetration thus reducing the gap.

Risk Based Pricing should be adopted in Property Insurance which would enhance the affordibility through competitive pricing reflecting policyholders' own loss experience and risk management practices.

Freedom in Policy Wordings Currently the insurers do not have freedom in issuing customized policy wordings. Enabling insurers to customize the policy wordings in accordance with the Risk profile would encourage product innovation and will meet the consumer needs..

Freedom in deductibles and loss limits helps policy holder balance risk reduction and transfer to optimize their insurance policy by choosing deductibles and limits relevant for their business. Currently majority of commercial policyholders, whose sum insured is lower than $350 million at a single location cannot have loss limit based policies or increase their deductibles which would reduce their overall insurance cost. IRDAI initiative on introduction of Bima Vistaar - a comprehensive insurance product bundled with multiple risks under single policy coverage like life, health, casualty and property risks would help in enhancing insurance penetration

Demand for Risk Management and Value-added Services

The increasing focus on risk management shapes the Indian home insurance market. Insurers utilize sensors, data analytics, and machine learning to identify and prevent potential risks. Future trends will prioritize enhanced risk management capabilities and broader coverage options, collaborating with InsurTech firms for value-added services such as home security and fire protection etc.

Digital Distribution

On the distribution front, exploring new avenues beyond traditional channels is essential. Leveraging Integrated Technological Architecture using existing infrastructures like Micro Finance institution networks, NGOs, Banking networks, postal networks, CSC, and web aggregators can significantly enhance insurance penetration. **Mobile-based digital applications attract younger customers, simplifying their insurance purchases.** Collaborating with corporate houses for social security and disaster risk insurance can further boost insurance penetration.

Regulatory support is essential to expand the intermidiaries role to sell wider gamet of products including insurance which would enable them seemless end to end solution for policyholders.

IRDAI initiative on Introduction of 'Bima Sugam', - A comprehensive online portal which is a one stop digital solution for all insurance related queries, policy purchase, claim settlement and insurance advice etc.

Reinsurer's Support

The increasing exposure to catastrophic risks necessitates restructuring existing reinsurance arrangements and offer customized solutions. Designing region-specific Climate Risk Insurance considering climate change, urbanization, hazard risk vulnerability, and regional exposures is imperative in present scenario. Innovative risk solutions such as ART and Parametric Insurance at the regional level need exploration, calling for a review of existing reinsurance protections and considerations for Aggregate XL cover and Solvency protection covers.

5.14 Suggestions to Improve Property Insurance Penetration in India:

The Swiss Re report (2022) highlights India's current 95% NATCAT Protection Gap, which is expected to increase due to rising climate risk exposures, infrastructure developments, and rural-to-urban migration. Munich Re's report (2021) shows nearly 91% of NatCat losses are triggered by weather-related perils, increasing volatility and reinsurance complexities. Insurers can offer coverage against these disasters and cross-sell/up-sell to existing customers for revenue growth and loyalty improvement.

Nearly **84% of the individual customers from low- and middle-income categories** (less than 5 lakhs and 5 to 10 lakhs) do not have property insurance. Furthermore, 77% of customers from coastal regions, tier-2, and tier-3 cities do not possess any form of property insurance.

Low insurance penetration results from lack of

Awareness (50%)	Limited Product knowledge (38%)	Complexity (39%)	Affordability (39%)	Low perceived value (38%)	Distrust (35%)

Simplifying products with lower premiums would attract more customers. Premium subsidies for disaster-prone regions through collaboration with the government and mandatory NatCat peril covers can enhance coverage.

The home insurance market shows vast potential but requires better insurance awareness particularly for lower-income and less-educated segments. Insurers must tap into growing awareness and demand for customized products, utilizing digital technology and analytics for personalized services.

The increasing migration of the rural population to urban cities would significantly elevate disaster risk exposures, placing an enormous financial burden on the government and community. This necessitates examining viable risk financing or innovative risk-transfer strategies to build community resilience in our country. Premium financing increases affordability of insurance for policyholders especially those in the MSME sector.

Secondly, **over 80% of the customers from the upper-middle (Rs.10 lakhs to Rs.20 lakhs) and high-income (Above Rs.20 lakhs) do not perceive the need for property insurance.** These segments are highly potential customers, and there is a need to educate them about the Importance of property insurance and make them realize the necessity of having adequate protection. Insurers can collaborate with the InsureTech companies offering home security, maintainance and repair services as value additions.

Higher penetration is among the corporates in large A-class cities and Metros (42%),but it is quite low (27%) in tier-II & IIIi cities and rural areas (12%). A large number of MSMEs (57%) do not have property insurance.

A large number of corporate customers **(63%) and MSMEs believe that their coverage is inadequate** considering the rising NATCAT exposures and climate risks. 72% of them want to increase their coverage.

Main reasons for inadequate coverage among corporate customers are lack of awareness (52%), non-coverage of certain risks (41%), non-availability of single peril NATCAT cover (41%), coverage is not explained fully (38%), non-coverage of climate risks & pandemic risks (33%), and high premium rates (34%).

Insurers and brokers do play a significant role in cultivating a positive mindset among customers as they can continuously engage with them throughout the entire value chain, from understanding their requirements to claims settlement. They should provide various value-added services, such as customization of risk covers in accordance with by the client's requirements, global wrap-up covers, risk management, claims assistance, etc. This would help clients realize the value of insurance and improve protection adequacy.

More than **60% of corporate customers demand Climate Risk Insurance,** including pandemic-related covers and stand-alone Cat-peril policies (Flood/Cyclone, Landslide, Earth Quack, etc). Secondly, **62% of customers want to protect their cyber risk** through cyber insurance. Nearly **57% of customers want Environmental Liability, 44% want Electric Vehicle insurance,** and 26% Drone Insurance, apart from Machinery Breakdown, Liability Insurance, and Workman compensation or employee benefit policies.

Many corporate customers suggested that these covers can be offered as **top-up covers under the standard fire insurance** or property insurance. Some of them want to cover cyber risks causing **property damage, including digital assets** like computers and high-tech gadgets, under property insurance.

A customized region-specific Climate Risk Insurance needs to be designed, taking into account climate change, urbanization, hazard risk vulnerability, and exposures of the region. A single peril customized NatCat peril insurance can be developed depending upon the disaster risk profile of the region. Further, parametric-based insurance and embedded insurance solutions would help in scaling up property insurance in India.

Improve Claims & Policy Services: Many customers suggested that insurance companies need to enhance their claims services through proper loss assessment and faster claims settlement. They should clearly inform customers of the claims settlement process and documents required at the time of policy issue. Insurers should use **satellite-based hazard risk and loss assessment** with the help of remote sensing and **geo-spatial technologies** for accurate loss assessment and faster claims settlement. The use of **AI-based Computer Vision and Augmented Reality (AR)** fitted through drones would help improve the accuracy of loss assessment and expedite claims settlement. Policy servicing through mobile applications would enable customers to easily connect and facilitate a smoother and faster buying and claims process..

(Re)insurers and brokers around the world have developed **integrated risk management frameworks** and are engaging in discussions about the structure of a potential public-private partnership program for the effective management of NAT CAT events. The proposals rely on significant government support but acknowledge a role for the insurance sector and insurance buyers.

GIS-based hazard risk analytics, based on the availability of new data on mitigation measures and business impacts, provide an opportunity to reduce future NAT CAT impacts and enhance insurability. The involvement of all stakeholders – Government, Insurers, Reinsurers, Brokers, and other intermediaries in expanding distribution networks, enhancing coverages, and implementing risk mitigation and reduction measures would contribute to building future resilience.

Most of the **state governments do not have an ex-ante disaster risk pool**; as a result, they depend upon central government financing through post-relief measures. Furthermore, they lack adequate disaster risk financing measures for preventive initiatives and also lack adequate preparedness to mitigate the risks.

A public-private solution for NAT CAT risks, including pandemic risk, involving the insurance sector, could offer many benefits to all stakeholders, including state governments, by mitigating exorbitant interest rates on loans and insufficient grants. It will also improve efficiency and fairness, providing incentives for disaster risk reduction. The government can adopt universal coverage for the low income households including BPL.

All the stakeholders including the government must make necessary efforts to improve climate literacy and promote decentralized actions for building climate change resilience. 'Disaster risk sensitive' planning and development should be mainstreamed for lasting protection.

The Government can make it mandatory for the commercial organizations and financial institutions in the country to spend a certain percentage of their revenue towards the climate change/ DRR awareness creation, education, and special campaigns annually. Adequate provisions for such climate change risk reduction activities to be made out of their Corporate Social Responsibility (CSR) Funds.

We have not explored the possibility of having CAT Bonds in the Indian market. Capital markets could provide an additional funding capacity source through insurance-linked solutions to high severity disaster losses.

NAT CAT Insurance Cover needs to be made compulsory in areas highly vulnerable to disaster risks. The state/central government can impose an additional cess on property tax to contribute to the premium, improving penetration in high-risk or vulnerable areas.

A collaborative approach involving all stakeholders — government, insurers, reinsurers, brokers, and intermediaries — could reduce future NAT CAT impacts and build resilience. Efforts from insurers, reinsurers, intermediaries, and policymakers are crucial for closing the protection gap and ensuring the sustainability of the insurance business in the future.

6. CYBER INSURANCE

6.1 Introduction:

Cyber liability risk has emerged as a pivotal concern, ranking as one of the top risks in the World Economic Forum's Global Risk Report 2023[1]. In our modern landscape, the pervasive use of technology has permeated every facet of life, from healthcare and social media to banking, insurance, manufacturing, and services.

The ongoing global pandemic, COVID-19, has further accelerated the integration of technology, rendering it an inextricable part of our daily existence. A staggering 79 zettabytes of mobile data are currently in use, with nearly 80% of the population actively engaging in this digital realm. Notably, we are on the brink of a paradigm shift, with projections indicating that between 75 to 100 billion connected devices, encompassing IoT devices, mobile-based applications, GPS systems, radar sensors, cloud services, WiFi routers, and more, will be seamlessly integrated into our systems and mobile networks by 2025.

This unprecedented level of interconnectivity places our digital landscape at a heightened risk of cyber threats and exposures. **Furthermore, it is anticipated that India will boast 1 billion Internet users by 2025, underlining the scale of digital engagement[2].** Presently, over 70% of customers have significantly augmented their usage of payment platforms such as UPI, Google Pay, and PayTM. Remarkably, a recent report from Risk & Insurance estimates that a mind-boggling 2.5 quintillion units of data are generated and processed globally each day. This surge in data utilization, coupled with the intricate interdependence of our systems, exponentially amplifies the cyber vulnerabilities faced by organizations.

Increasing Cyber Risk Exposures.........

70 lakh Indian Cardholders data were leaked on Dark web. covering credit/debit Information, PAN, Financial & Personal Date Bank's TPA.

63% Corporate customers experienced Cyber Attacks. 66% of Boards & Top Executives perceives Cyber risk as highly significant.

60% perceives it is difficult to detect Cyber attack with current cyber security systems Hackers use highly sophisticated tools.

Major risks are Data leakages, PhishingRansomware, Spyware, Identity Risks, IOT Connected devices exposures are high.

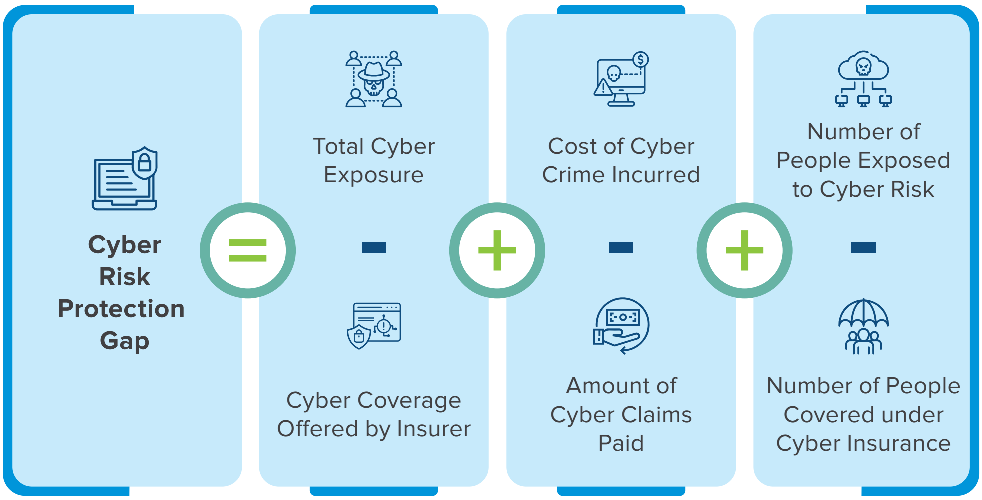
Major reasons are Misconfigur-ation, Human errors, poor maintenance, Not updating the patches, and unknown assets, etc.

[1]World Economic Forum 2023 [2]IAMAI Report, 2022

The cyber risk exposures are increasing exponentially in India. As a result, India has become the second most vulnerable country in terms of cybercrime incidents, and the amount of cyber loss has increased 10 times, reaching more than USD 7 trillion. A recent study highlights that the global average cybercrime cost is projected to exceed USD$ 10.5 trillion in 2025[3].

[3]Cybersecurity Magazine, 2020

The Protection Gap in Cyber insurance is measured in terms of the number of individuals and corporates covered under cyber insurance against those exposed to cyber risk. Secondly, it considers the difference between the total cost of cybercrime incurred and the amount of claims paid by the insurers. Additionally, there are gaps in cyber insurance coverages offered by the insurers in protecting the cyber risk exposures. Our study considers all the above three approaches to measure the protection gap in cyber insurance.

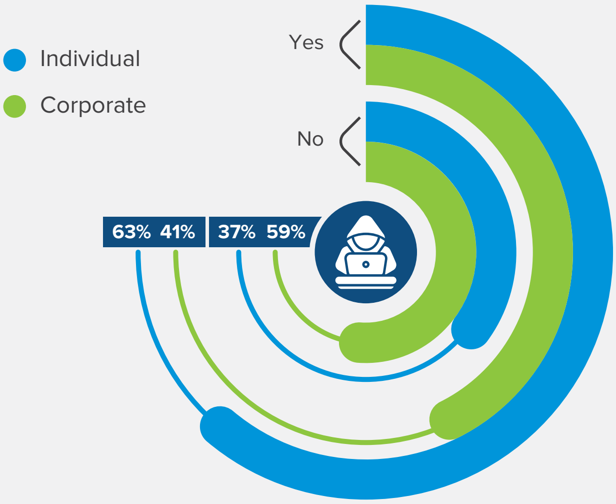


Thus, the formula for measuring cyber risk protection above is very comprehensive, encompassing cyber risk penetration, inadequacy of coverage against exposures, and perils covered.

6.2 Increasing Cyber Risk Incidences:

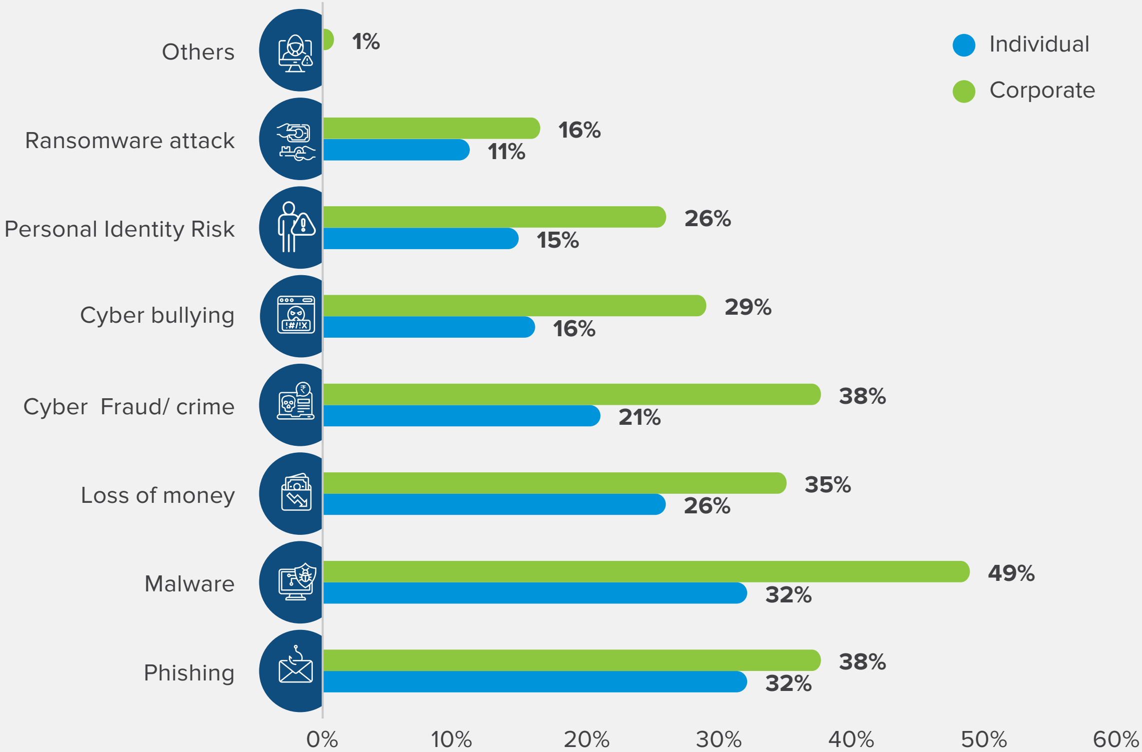
A recent study by KPMG indicates that over 72% of organizations, including service industries, are being hacked or are vulnerable to cyber risks. Increasing globalizations, the use of clouds and IoT, AI, and connected devices exponentially increase system vulnerability.

Figure 6.1 Cyber-attack Incidences



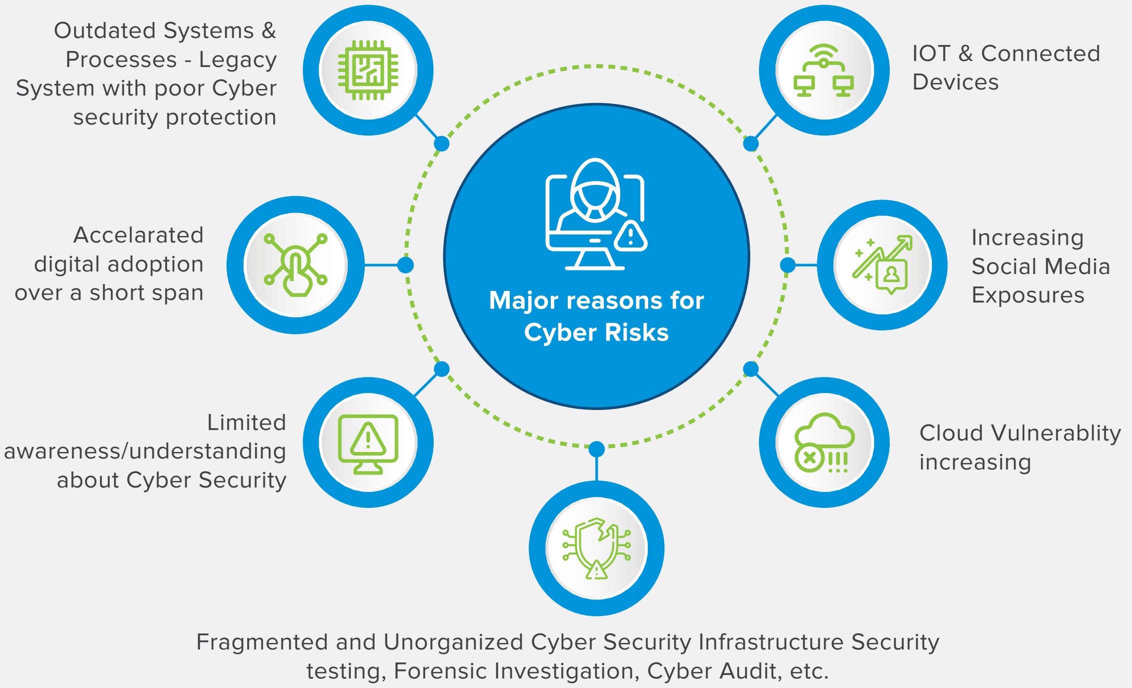
Our study highlights that nearly 63% of individual customers and 41% of corporate customers perceive increased cyber incidents in their daily lives. The majority of customers experienced cyber-attacks in the form of phishing, spoofing emails, malware, ransomware, as illustrated in Figure 6.2.

Figure 6.2 Cyber Risk Incidences - Individuals & Corporates



Social media & Personal Identity Risks are also increasing in recent times. A significant number of corporate customers have also experienced malware-related system bugs (49%), phishing emails (38%), and 39% cyber frauds or crimes in their organizations. It has been observed that the types of cyber attacks vary significantly across different organizations. For instance, banking and insurance companies receive a large number of phishing emails or malware, while manufacturing companies experience major threats from their vendor or supply chain-related vulnerabilities.

The major reasons contributing to the increasing cyber vulnerability in organizations are as follows:



1) Use of Outdated Systems & Processes:
The main vulnerability, as seen in the diagram above, is the use of outdated systems and processes—legacy systems with a lack of regular updating of cybersecurity. Most public sector organizations and government sectors face such vulnerabilities more often.

2) Accelerated Digital Adoption:
The accelerated digital adoption, particularly during the COVID-19 pandemic, by almost all industries within a short span, has contributed to increased vulnerability.

3) Fragmented Cyber Security Infrastructure and System Vulnerability: Many organisations have fragmented cyber security infrastructure and examine the cyber security lapses in tandem/ solos. They do not perform regular security testing, forensic investigations, updation of filters and firewalls etc.

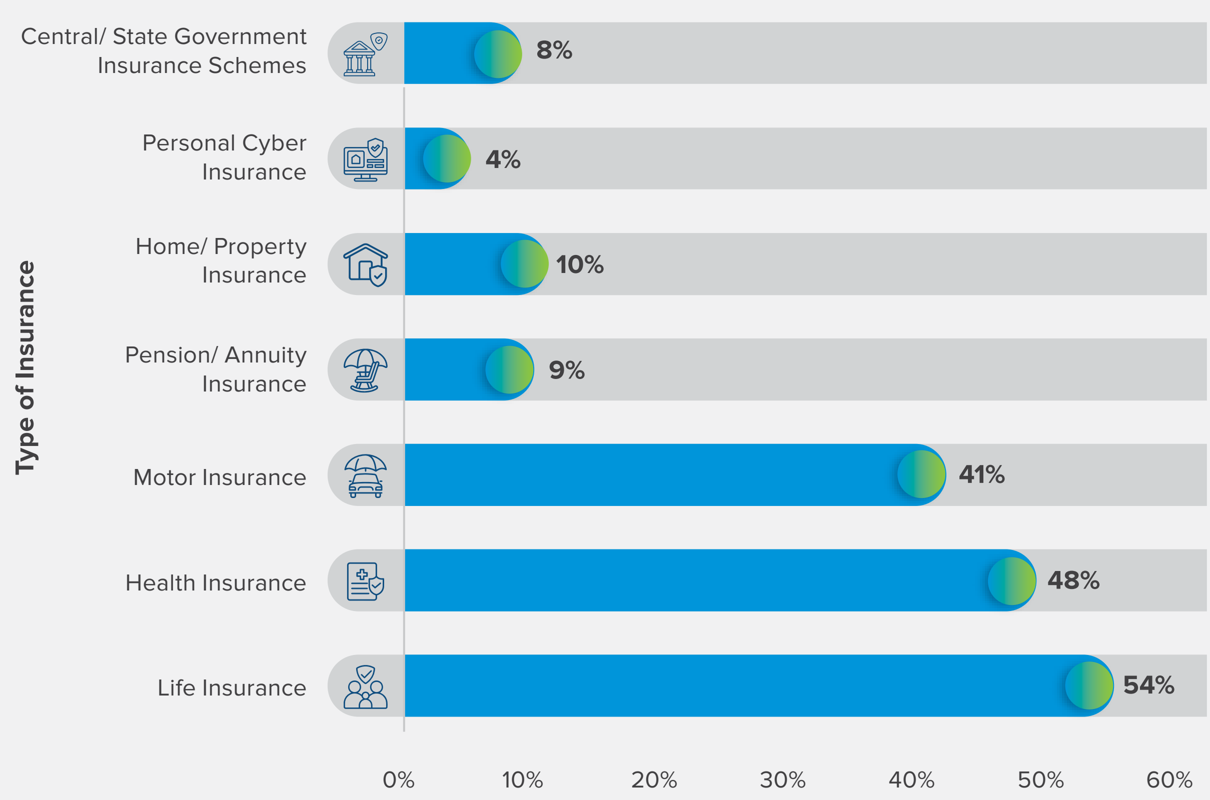
4) Cloud Storage, IoT, and Connected Devices:
A large number of organizations opting for cloud storage, use of IoT and connected devices, and increasing social media exposures have all contributed to enhanced exposure.

However, lack of awareness among organizations, particularly key management personnel (CEO, CFO, CIO, PTO, CRO, etc.), results in cyber insurance still not being perceived as essential. As a result, there is an immense need for every organization, including SME sectors, to obtain adequate cyber risk protection.

6.3 Cyber Insurance Penetration - Individuals

The Indian cyber insurance market is still in the process of maturation, and the prevalence of cyber insurance policies remains very low. Presently, only 1200 to 1400 corporate cyber policies are being sold to corporates, indicating a significantly low penetration rate.

Figure 6.3 Cyber Insurance Penetration- Individual Customers



The analysis above reveals that less than 5% of individual customers currently possess cyber insurance, leaving ample room for business expansion in the retail sector.

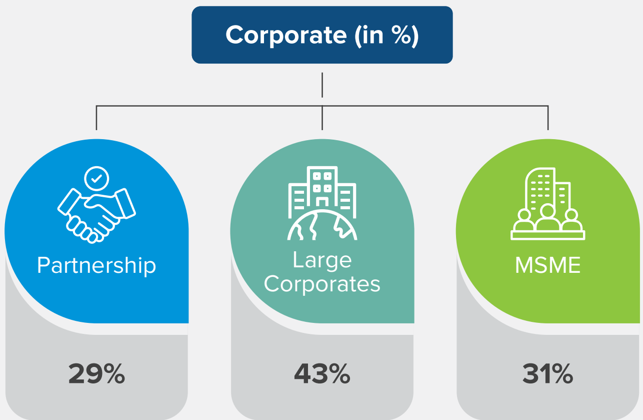
6.4 Cyber Insurance Penetration amongst Corporate Customers:

According to insurance company statistics, less than 2% of corporations have opted for cyber insurance policies. The majority of these are large companies that have done so to meet the requirements of SEBI and RBI, ensuring the security of customer deposits and investments.

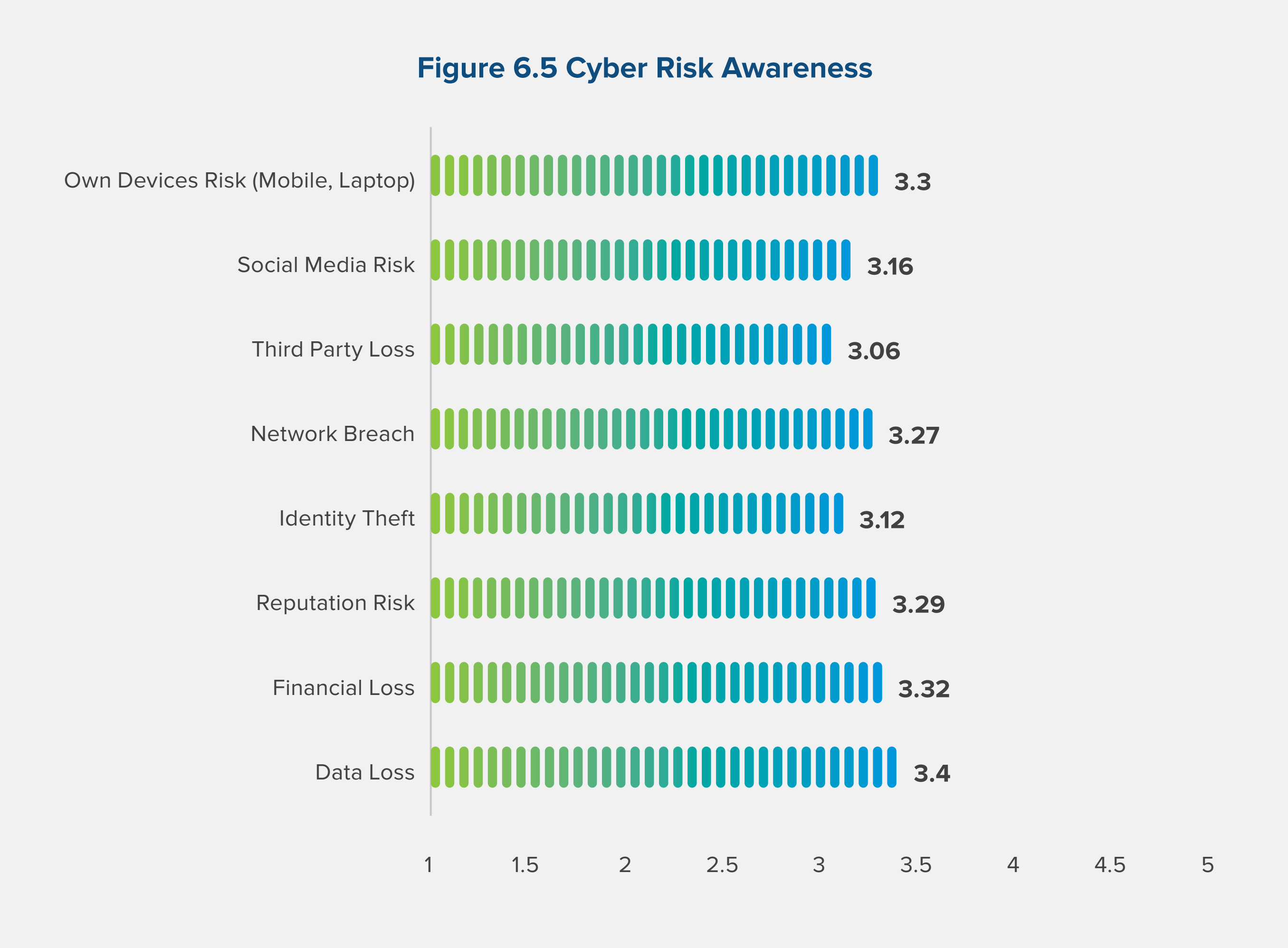
One of the main reasons for the low adoption of cyber insurance is the lack of awareness and a perceived need for such coverage. Our analysis indicates a low level of awareness across different types of organizations. While corporate customers recognize the importance of protecting their network security and core functions of their IT systems, their awareness of known risks such as network security, identity theft, data loss, and financial loss is reasonably good.

However, they do not perceive the importance of emerging risks associated with increased usage of Artificial Intelligence, IoT, and connected devices. Web servers are currently being increasingly exposed to higher cyber vulnerabilities, and there is a need for comprehensive protection in these areas.

Figure 6.4 Cyber Insurance Pentration- Corporates

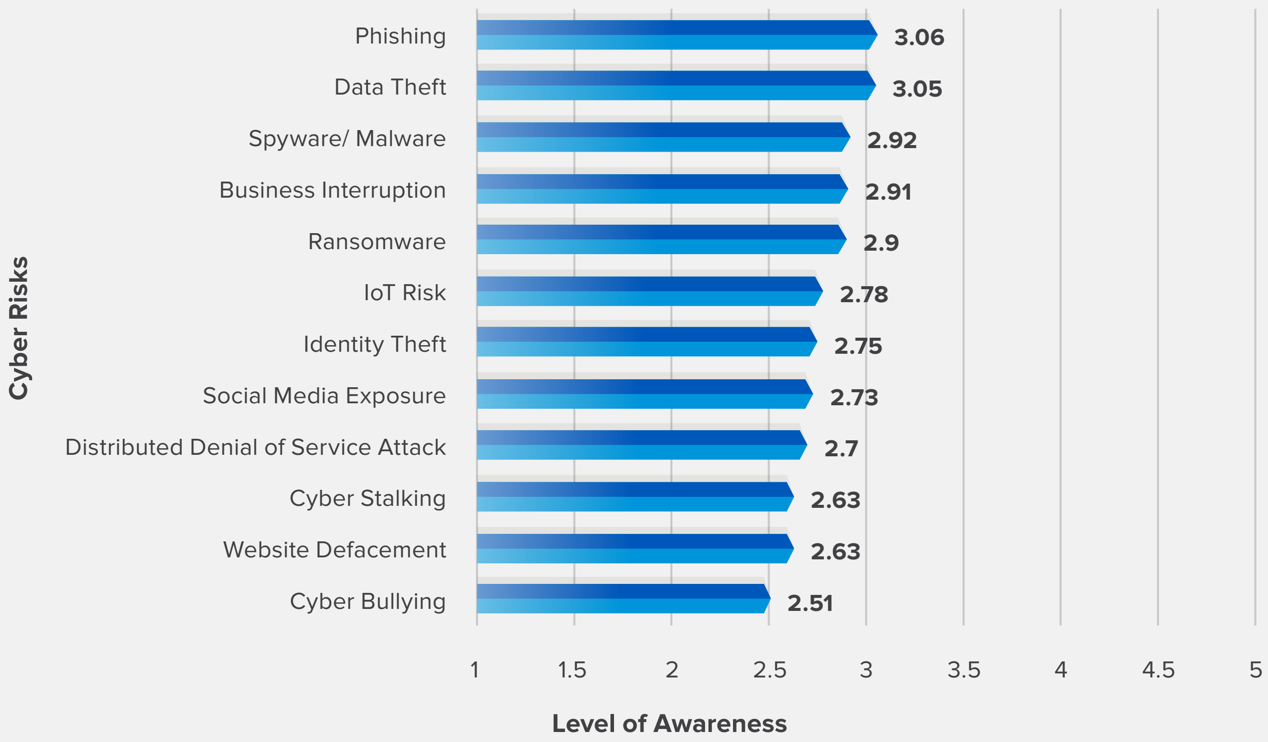


6.5 Cyber Risk Awareness about Known Risk:



A large number of corporate and individual customers demonstrate moderate level of awareness over the traditional known risks like financial lossess, cyber crime, data and network breach, etc. while they have very low awareness, as indicated in Figure 6.6, about emerging cyber risks such as social media exposures, spear targeting, AI and Big Data-related risks, and particularly Internet of Things (IoT). A significant number of web servers and clouds are highly exposed to cyber risk, as many hackers increasingly target web servers, social media platforms, and cloud service providers.

Figure 6.6 Awareness About Emerging Cyber Risks

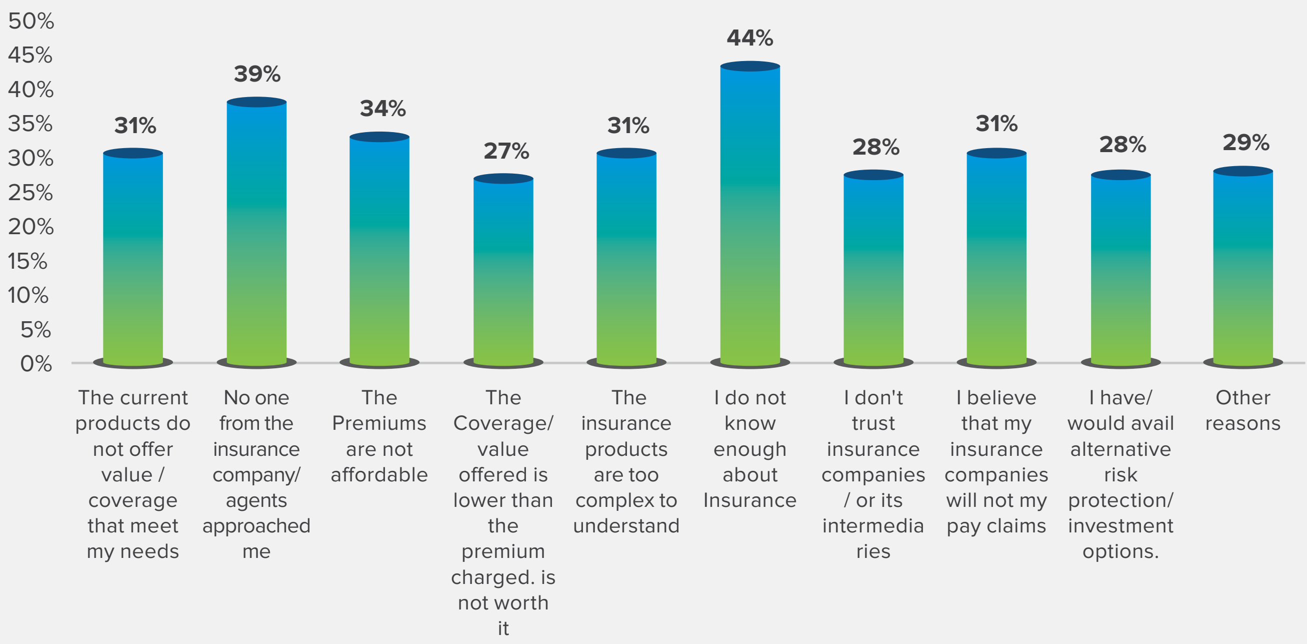


The mean ratings for most of the emerging risks, including IoT, cloud, social media exposure, IPR theft, DDOS, and Cyber Bullying, are less than 3.00, indicating very low awareness about them. Given the increasing use of data-related services, especially cloud storage and social media exposure, it is essential to adequately protect and regularly monitor their web servers, cloud servers, and social media platforms. It is noteworthy that cyber breaches on these new-age technologies have recently increased significantly, with many hackers utilizing highly sophisticated AI tools and automated bots to continuously exploit vulnerabilities and breach security systems.

As discussed earlier, Cyber Insurance Penetration among corporate and individual customers remains quite low. The main reasons for this low penetration include a lack of awareness and knowledge about cyber insurance and the risks covered under the policy. Many do not even perceive the need to adequately protect their organization through cyber insurance. High premium rates and lower perceived importance hinder their purchase of adequate cyber protection. A reasonable number of corporate customers believe they have invested sufficiently in cybersecurity measures for their systems and regularly conduct cyber risk audits, phishing, and ransom vulnerability testing through their cybersecurity vendors. Hence, they perceive that their systems are well-protected, and there is no need for insurance. However, it is important to evaluate the cyber vulnerability of their subsidiary or ancillary units more particularly their vendor system in the supply chain. Figure 6.7 below highlights the major reasons for not adopting cyber insurance among corporate and individual customers.

6.6 Reasons for Not Taking Cyber Insurance – Individuals:

Figure 6.7 Reasons for Not taking Cyber Insurance - Individuals

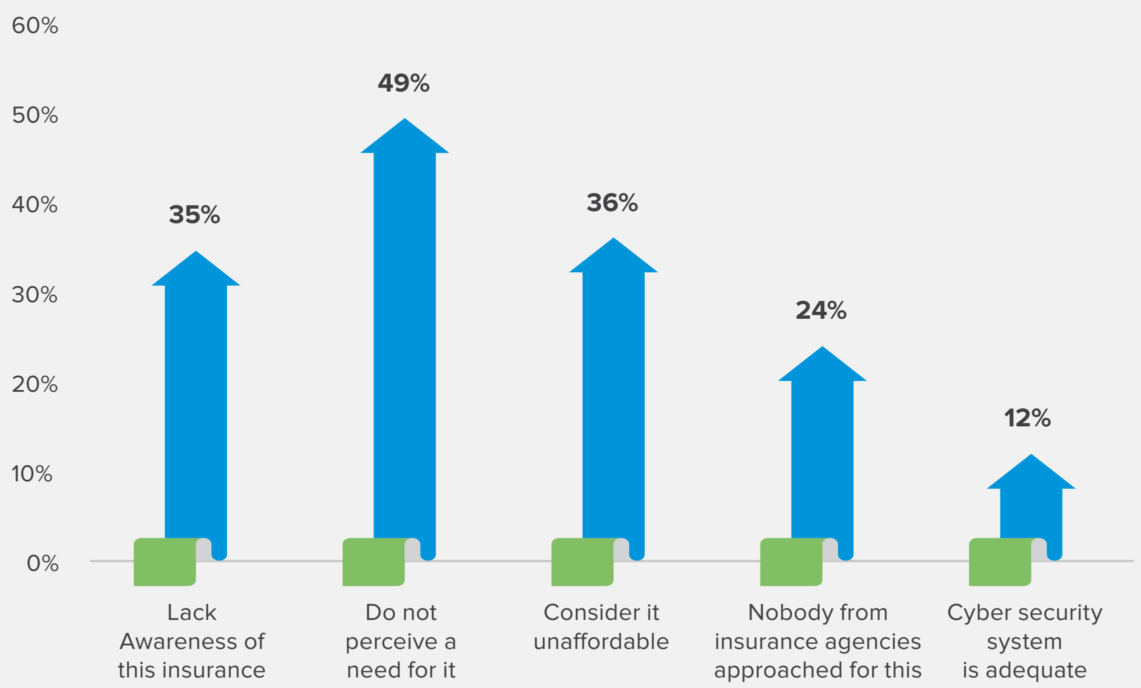


In addition to the reasons discussed above, approximately 31% of individual customers perceive that current cyber products do not offer any value addition, and coverages are also restricted. Other perceptions include "No one from the insurance companies or intermediaries approached me (39%)" and 44% stating "they do not know much about cyber insurance." This indicates a need for insurance companies and intermediaries to launch aggressive awareness campaigns and encourage customers to take adequate protection against cyber risks.

Keeping premiums reasonable is crucial, as 34% perceive that the premium is not affordable. Nearly 31% appear to have had a negative claims experience in the past, expressing a lack of trust in insurance companies and a belief that claims are not settled promptly. Such misunderstandings need to be clarified through aggressive communication about successful claim settlement performances and image-building exercises.

6.7 Reasons for Not Taking Cyber Insurance – Corporates:

Table 6.8 Reasons for Not taking Cyber Insurance - Corporates

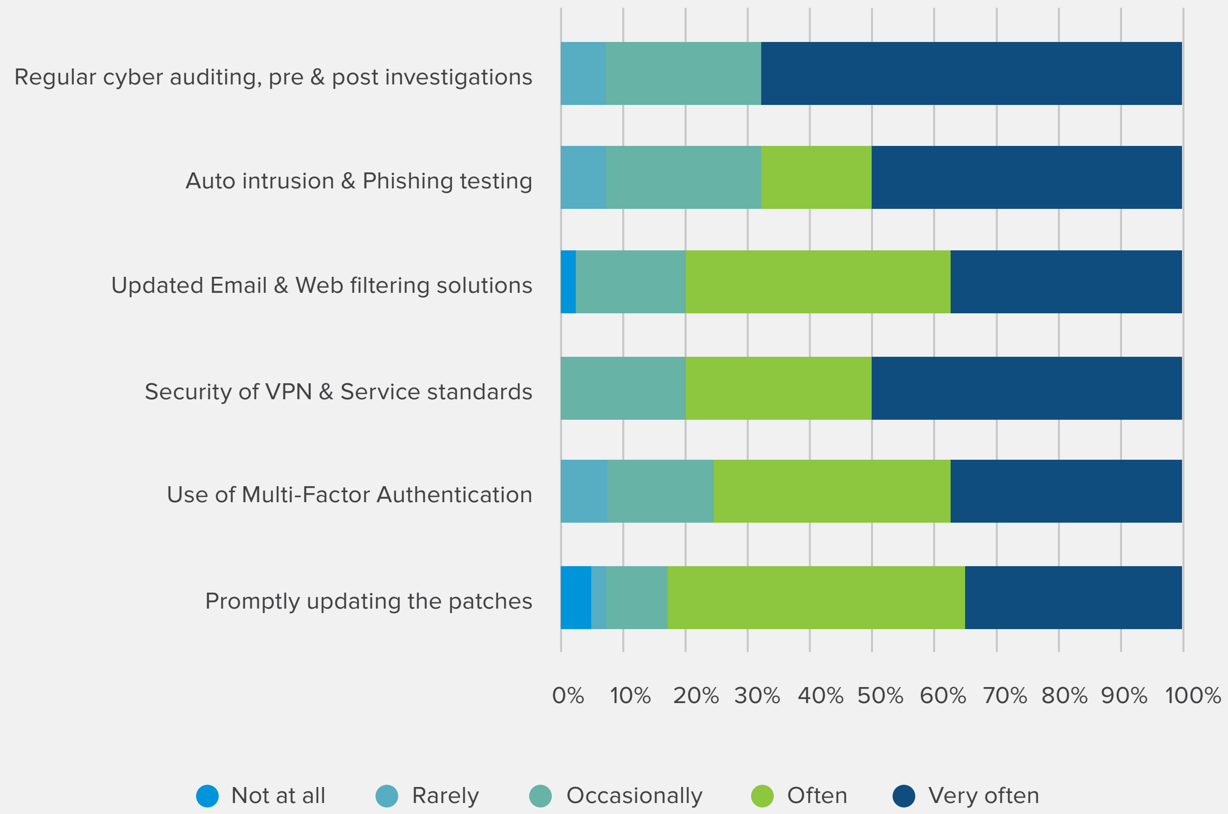


The primary reasons for corporate customers not purchasing cyber insurance are a lack of awareness and knowledge about cyber insurance (35%), followed by higher premium rates (36%). However, nearly 49% of corporate customers feel that they do not perceive the need to protect their exposure through cyber coverage. This indicates a lack of awareness regarding the importance of cyber insurance, with a prevailing belief that investing in cybersecurity measures is sufficient.

However, this perception is inaccurate, as recent cyber incidents reveal that no system can be fully secured against cyber-attacks. Hackers are highly intelligent, often operating at levels beyond the capabilities of ethical hackers employed by security firms.

6.8 Cyber Security Measures Adopted by Large Corporates:

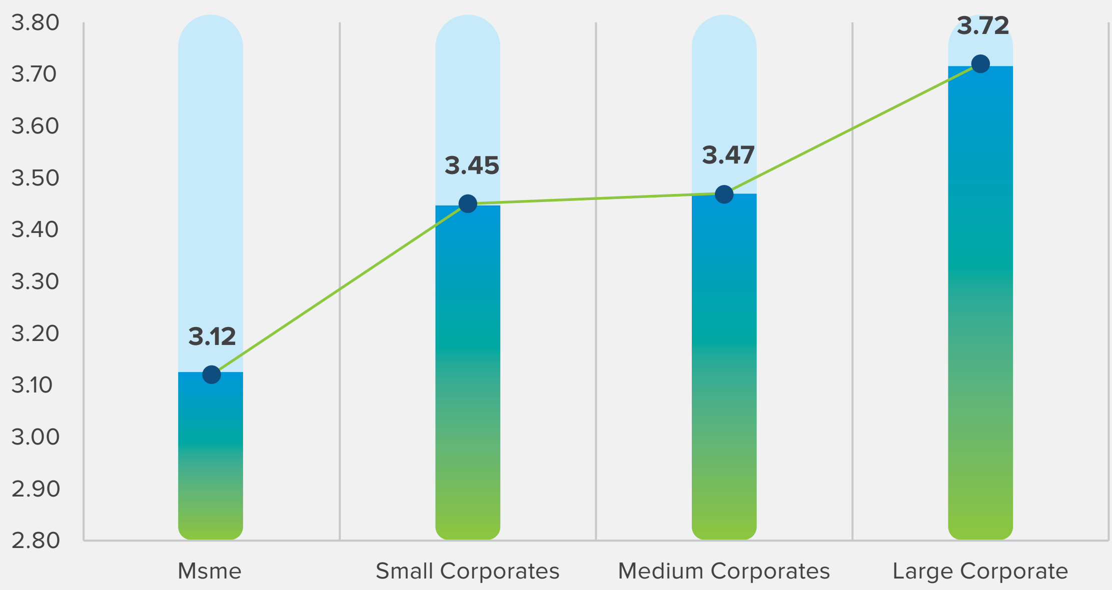
Figure 6.9 Cyber Security Measures Adopted by Large Corporates



It is worth recalling from the above analysis that the majority of organizations do not routinely test their systems for vulnerabilities through cyber risk testing, forensic testing, cyber auditing, auto intrusion testing, etc. Our study reveals that only about 30% to 40% of organizations, especially large ones, conduct such testing periodically, as mandated by some insurers. The remaining organizations do not regularly perform these cyber security tests, thereby exposing themselves to higher cyber vulnerability.

6.9 Perception of Cyber Security Effectiveness:

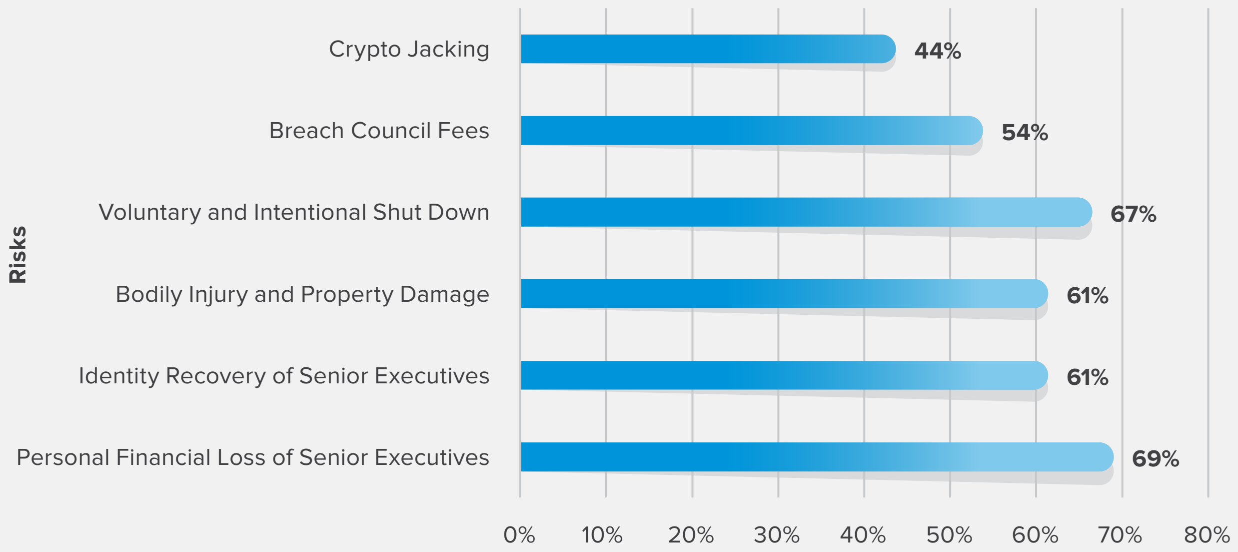
Figure 6.10 Perception about Cybersecurity Effectiveness



As indicated in Figure 6.10 above, it is evident that only large corporate customers perceive that their cybersecurity measures are effective and well-updated, while others, including medium-sized and MSMEs, do not share the same perception.

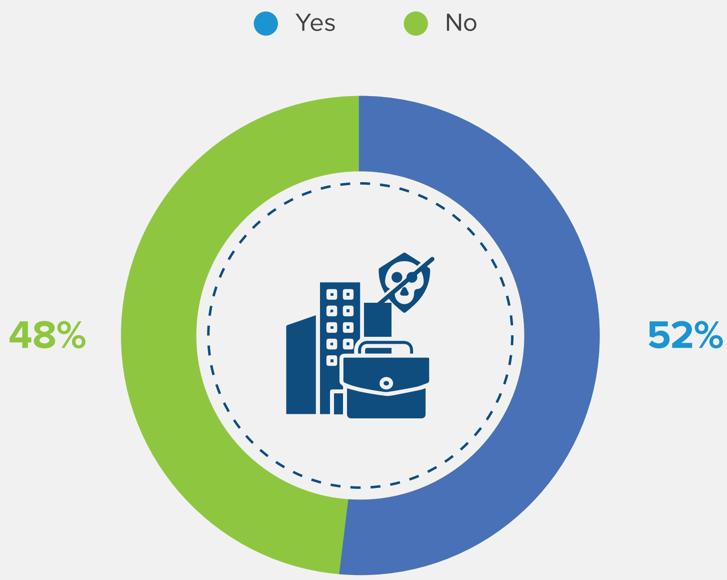
6.10 New Risks to be Covered Under the Cyber Insurance – Corporates:

Figure 6.11 New Risks to be Covered under the Cyber Insurance - Corporate



Many corporate customers perceive that their current policies do not cover certain emerging risks, as evident from the above analysis. About 70% believe that their standard cyber policy does not cover personal identity risks and personal financial loss of their directors and senior executives. Furthermore, a significant number of customers (61%) demand that property damage and bodily injury or third-party liability caused by cyber risks be covered under cyber insurance as an add-on cover. Approximately 66% of customers perceive that their policies do not cover losses arising from any voluntary and intentional shutdown of the system due to cyber mitigation testing, while the policy covers such loss of which the customer is not aware. An add-on cover for standalone business interruption is in existence under the cyber insurance policy, as indicated in Figure 6.12 below:

Figure 6.12 Cyber Business Interruption Covers by Corporates



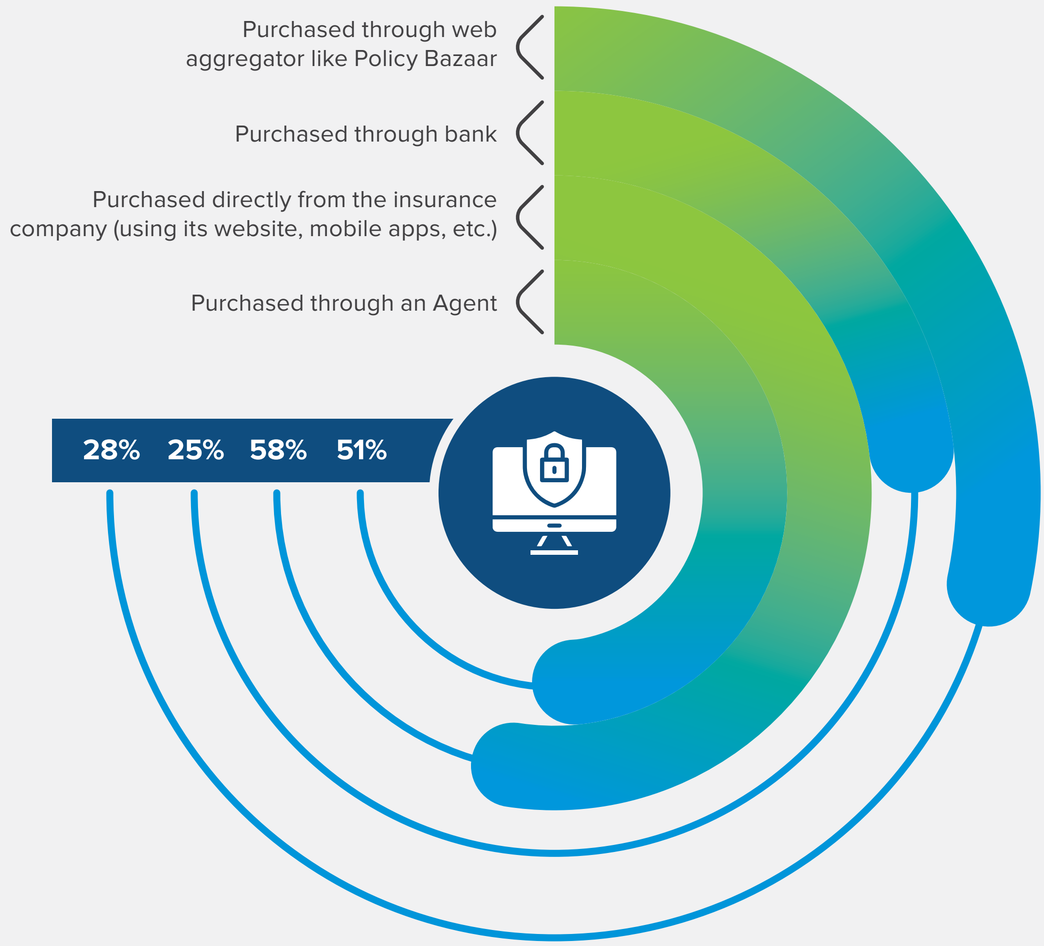
Only about 52% of corporate customers have taken such business interruption cover, and many customers, particularly those from medium-scale industries and MSMEs, are not aware of the availability of such add-on covers.

Similarly, many customers (54%) believe that fee payment of breach council is not covered by their policies, while it is offered under an add-on cover. These findings indicate that many corporate customers are not fully aware of the risks covered and exclusions of their cyber policies. Therefore, it is advised that insurers and brokers educate their corporate customers about cyber coverage/exclusions and addons. Value-added services can be provided through periodic Cyber risk management by cybersecurity firms throughout the policy period, making them realize the importance of cyber security insurance and the value of insurance.

Based on the above findings, insurers and intermediaries need to insist on a cyber risk assessment report about their client systems, which would help identify security gaps and vulnerabilities. Such analysis can assist insurers in designing customized policies with required coverages according to the perceived needs of their customers and exposures.

Secondly, cyber insurance is highly technical, making it challenging for a common customer to understand. Hence, insurers and intermediaries are expected to explain the importance of buying adequate coverage for cyber insurance to protect all digital assets, including social media, the Internet of Things, and cloud data. As indicated in Figure 6.13 below, a large number of customers purchase cyber insurance mainly through intermediaries like brokers/agents (51%) and directly from insurance companies (58%).

Figure 6.13 Mode of Purchase - Individuals



The second important channels are bancassurance and websites, with nearly 25% of customers, largely individuals, buying through banks and 28% through web aggregators. While awareness about cyber insurance has increased after the COVID-19 pandemic, cyber-attacks have also risen, affecting many individual customers through cyber frauds and crimes.

Moreover, various regulators like RBI, IRDAI, and SEBI have mandated corporates to acquire adequate cyber coverage as part of their IT governance and cyber security guidelines. As a result, large corporates have realized the need and importance of having adequate cyber insurance for their exposures.

Although it has not yet led to the development of a robust cyber insurance market, it is expected to grow in the near future. The recently introduced Digital Personal Data Protection (DPDP) Act has already created the need and will trigger further demand for adequate protection of cyber insurance in the Indian market.

6.11 Conclusion and Key Recommendations:

As discussed in our study, the cyber protection gap is increasing exponentially across all sectors and industries due to increased exposures , larger digital usage, increasing connectivity of devices, and higher volume of data usage particularly web-related / online business transactions, and the social media usage gone up. Our study also observed that the corporate customer's cyber risk awareness and knowledge about Cyber insurance products/ coverages are very limited. More importantly, the current coverages offered to the corporate clients are also very restrictive. Hence, the current coverage must explicitly specify the perils and the loss limits offered. The entire core team of professionals, including the CFO, CIO, and CISO in the organization, must understand their cyber risk exposure at all levels and the coverage they need.

Our study finds that many (except large companies) do not conduct cyber risk evaluation, cyber auditing, auto-intrusion test, phishing & ransomware testing to understand their vulnerability. Insurance companies and intermediaries can collaborate with cyber security firms and engage themselves to get periodic cyber risk assessments, which would help the clients understand their vulnerability gaps and the amount of exposures that need to be protected through cyber insurance.

With the rise in cyber claims across industries, there is a need for enhanced risk management strategies and comprehensive risk analysis to understand the full scope of potential threats due to the interconnectedness and complexity of Cyber risk dynamics.

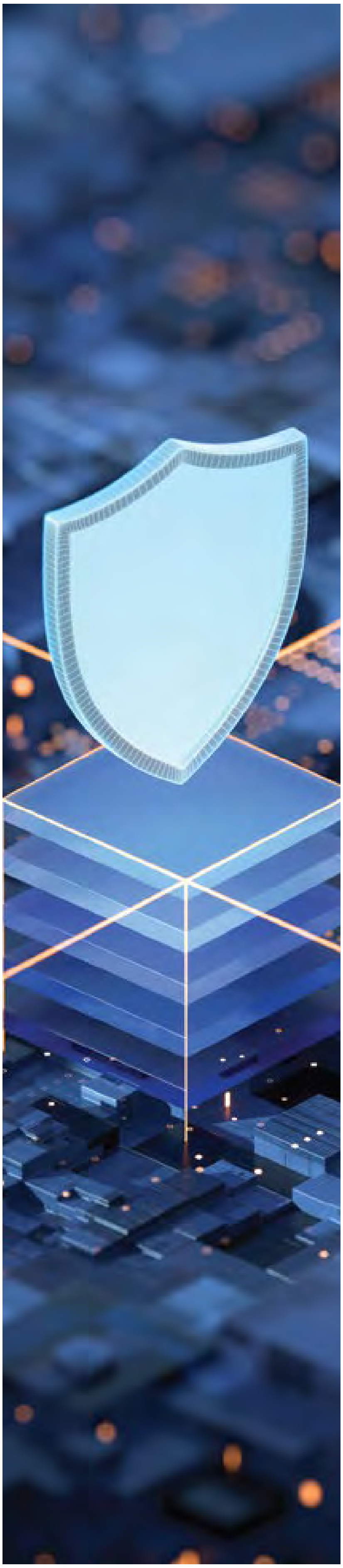
Mitigation strategies should prioritize major threats such as ransomware and social media risks, which are more prevalent than malware. The prioritization of losses in insurance policies should shift from data losses to recognizing that business interruption and crime are the major losses. Legal liability and first-party losses are the major components of cyber claims, necessitating customization of policy terms and risk management strategies.

Insurers should impose higher deductibles under the policy, making the corporates assume major responsibility for more prevalent losses encouraging them to invest in robust risk systems and technology infrastructure.

Raising awareness and demand for cyber insurance is fundamental, addressing the lack of awareness and understanding that contributes significantly to the low penetration of cyber insurance in India.

Lastly, addressing the shortage of expert underwriters in the cyber insurance industry is critical, as expertise in underwriting is vital for sound risk assessment and appropriate coverage recommendations.

Moreover, gaining a comprehensive understanding of uninsured customers across various sectors and industries is crucial. It enables the identification of distinct profiles, allowing for targeted approaches based on the differing levels of awareness and perceived necessity among these segments. Subsequent inquiries should be directed at discerning the client's level of exposure and pinpointing gaps in their cybersecurity. This information is instrumental in tailoring insurance



coverages to meet the specific needs of individual clients. Collaboration with cybersecurity firms is crucial for conducting regular cyber risk assessments for clients, helping them understand their vulnerability gaps and exposure levels.

Given the rising number of cyber claims across industries, developing and implementing enhanced risk management strategies is paramount to minimizing the losses. Furthermore, a comprehensive risk analysis must be prioritized, focusing on major threats such as ransomware and social media risks.

To promote a more secure digital landscape, insurers should assess the gaps and vulnerabilities prevailing in their systems and encourage investments in secure infrastructure.

Developing an industry-specific cyber risk taxonomy and exposure modeling, as well as creating a comprehensive database of historical incidence losses, will aid insurers in developing risk-based rating models and exposure ratings in the Indian market.

Increasing awareness and demand for cyber insurance through consumer education and awareness campaigns would reduce the cyber risk protection gap.

Given the ever-evolving nature of cyber risk, insurers and intermediaries must stay updated about global risk changes and educate their clients accordingly.

Standalone cyber insurance bundled with cyber security risk mitigation solutions can coexist to potentially enhance the insurance penetration by catering to diverse market needs.

Finally, we urge insurers to invest in robust risk systems and technology infrastructure to enhance their capabilities for effectively assessing and managing cyber risks.

When collectively implemented, these recommendations will contribute to bridging the cyber protection gap and fostering a stronger cyber insurance landscape across various sectors and industries in India.

Insurers and intermediaries must regularly be updated on the dynamics of the cyber risk landscape and educate their clients regularly through cyber risk intelligence report. Such updates can be disseminated regularly through newsletters, articles, and other digital communication to all the industry's key stakeholders.

By adopting these recommendations, the cyber insurance industry in India can fortify its resilience against emerging cyber threats, create customized solutions, and improve its offerings and penetration across various sectors and industries.

7. CROP INSURANCE

7.1 Introduction:

The agriculture sector in India has demonstrated consistent growth at a rate of 3% to 4% over the last seven years (2016 to 2023), contributing nearly 18% to our economy[1]. The Gross Value of Agriculture production, including forestry and fishing, was estimated at Rs. 22.3 lakh crore during the year 2022-23[2]. **India holds the position of the largest producer of milk, spices, and spice products, and is the second-largest producer of horticulture crops.** Additionally, India consistently ranks among the top three countries globally in the production of various crops, including paddy, wheat, pulses, groundnut, grapeseed, vegetables, sugarcane, tea, jute, cotton, and tobacco leaves. According to the Economic Survey of India 2021-22, the total food grain production for the country was estimated to be nearly 303 million tonnes in the financial year 2022-23.

Approximately 58% of our population is engaged in agriculture, making them one of the most highly vulnerable segments continually affected by natural disasters such as floods, unseasonal rains, storms, and droughts. Nearly 86% of farmers in India are small and marginal, with an average land size of less than 5 acres. When a disaster strikes, the entire livelihood of these farmers is at risk, as approximately 78% of them rely on loans for their agricultural activities. Consequently, disasters exacerbate their indebtedness and poverty. Insurance plays a crucial role in providing primary risk protection to farmers in such situations.

Various crop insurance schemes have been implemented since 1951, starting with the Comprehensive Crop Insurance Scheme (CCIS) from 1960 to 1984, followed by the National Agriculture Insurance Scheme (NAIS) from 1985 to 2000, and then the Modified NAIS from 2005 to 2015. In 2016, the Prime Minister Fazal Bima Yojana (PMFBY), one of the most comprehensive crop insurance was introduced in India which is recognized as the largest insurance scheme globally, covering nearly 6 crore farmers. The scheme provides financial compensation to farmers in case of yield loss triggered by various agriculture risks, including sowing failure, damages to standing crops, and post-harvest losses. It covers all-natural catastrophic perils, including localized calamities like storms, landslides, forest fires, unseasonal rainfall, and animal damage. The premium rates are highly subsidized, with the farmer's premium fixed at 2% for food crops and oilseeds grown in the kharif season and 1.5% for rabi crops. The remaining part of the actuarial premium is shared equally by the central and state governments on a 50:50 basis.

Successes of these initiatives depend on the active participation of the target groups.

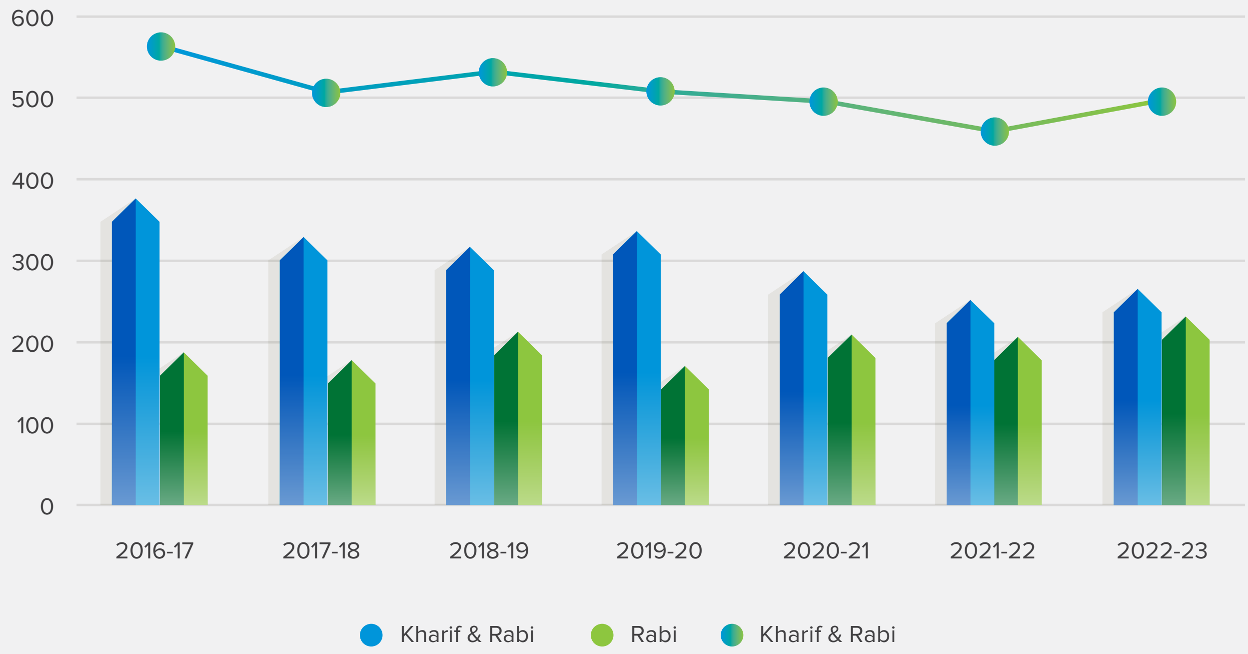
[1]Ministry of Agriculture and Farmers Welfare
[2]NABARD Annual Report, 2022-23

7.2 Crop Insurance Protection Gap:

The Protection Gap in Crop Insurance in this study is measured in terms of insurance penetration among farmers and the adequacy of their crop insurance coverage. The penetration of the scheme has been measured by the number of farmers covered under the program, the area of crop cultivation insured, the number of crops covered, and the sum insured, along with the amount of premium collected over the last 7 years.

The uptake and penetration of the scheme have been overall good in terms of farmer participation, business performance, and the overall successful implementation of the schemes in many states over the last 7 years (2016 to 2023).

Figure 7.1 Crop Insurance Business - Area Insured

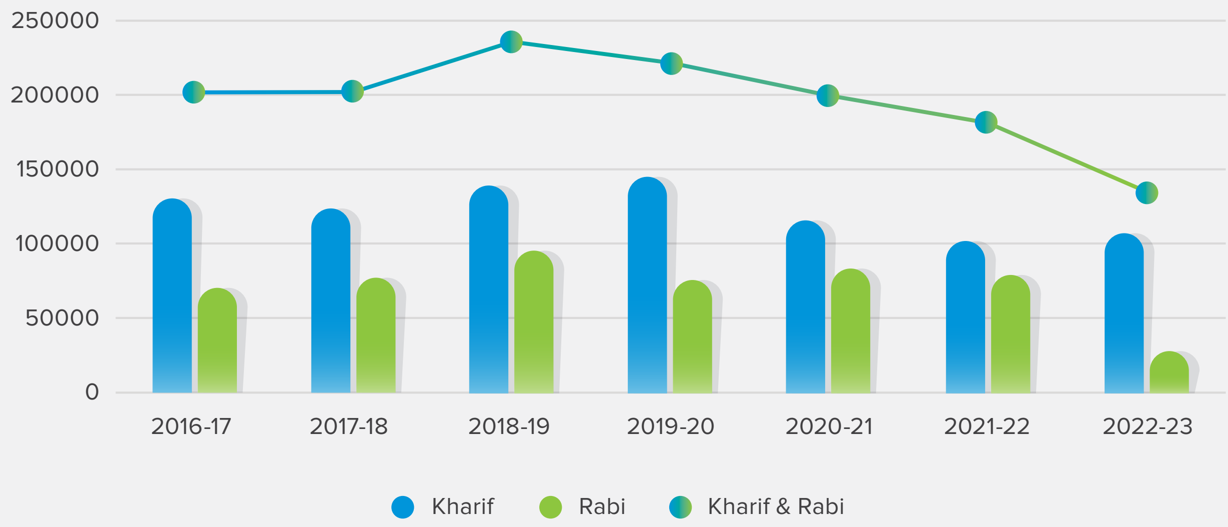


Source: Ministry of Agriculture and Farmers Welfare

As observed in the Figure 7.1, the insured area under cultivation has slightly decreased to 497 lakh hectares in 2022-23 from 564 lakh hectares in 2016-17. The percentage of insured area for kharif crop currently stands at 34% when compared with the total area under cultivation (830.31 lakh hectares in 2023)[1].

Similarly, the overall sum insured and amount of premium collected also show a decreasing trend.

Figure 7.2 Crop Insurance Business - Sum Insured

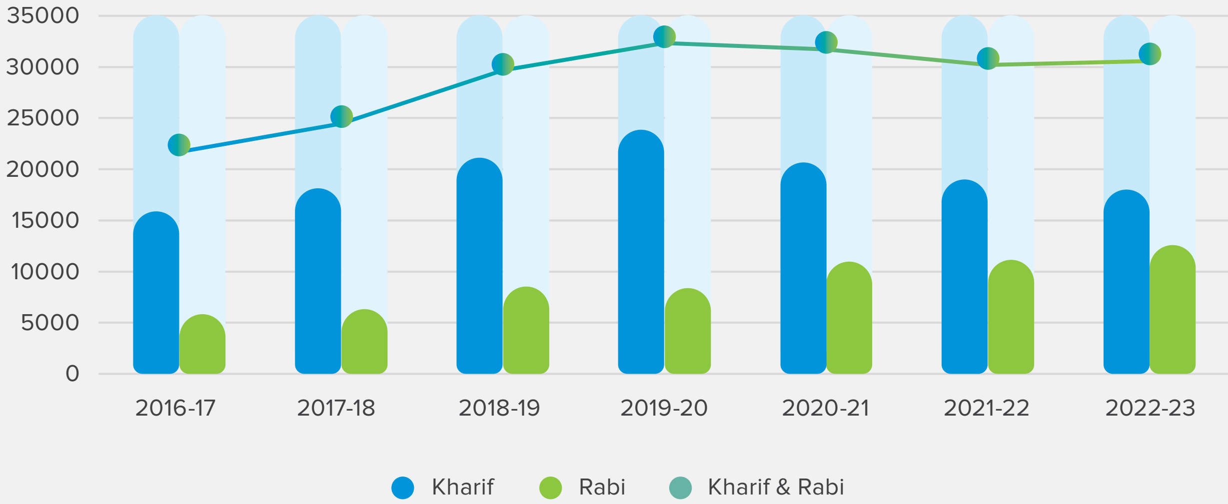


Source: Ministry of Agriculture and Farmers Welfare

As indicated in Figure 7.2, the sum insured for all crops currently stands at Rs 1,81,097 crores in 2021-22, down from Rs 2,35,740 crores in 2018-19. Similarly, the sum insured for Kharif crops and Rabi crops has also decreased to Rs 1,07,443 crores (Kharif) in 2022-23 and Rs 78,947 crores (Rabi) in 2021-22. Data for the Rabi crop is not updated for 2022-23.

Similar trends have been observed in the amount of premium collected as well.

Chart 7.3 Crop Insurance Business - Premium



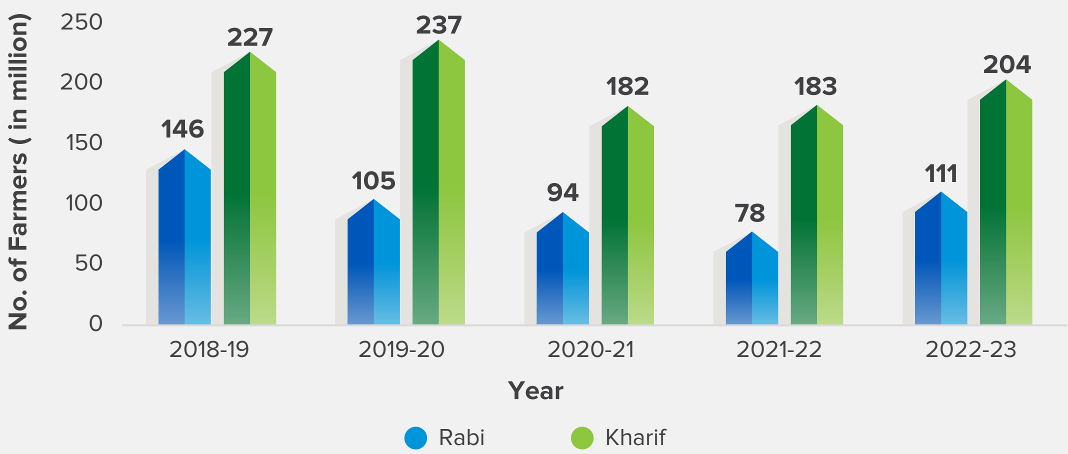
Source: Ministry of Agriculture and Farmers Welfare and PMFBY

As seen in Figure 7.3, the total premium amount (kharif & rabi) collected has decreased to Rs. 30,562 in 2022-23 compared to Rs. 32,329 in 2019-20. Similarly, the premium collected under kharif crops has decreased to 17,983 while the premium for the rabi crops has gone up to 12579 in 2022-23.

Farmers Participation in Crop Insurance:

While the current Pradhan Mantri Fasal Bima Yojana (PMFBY) scheme stands as one of the most comprehensive and popular initiatives among farmers, there has been a slight decline in farmer participation.

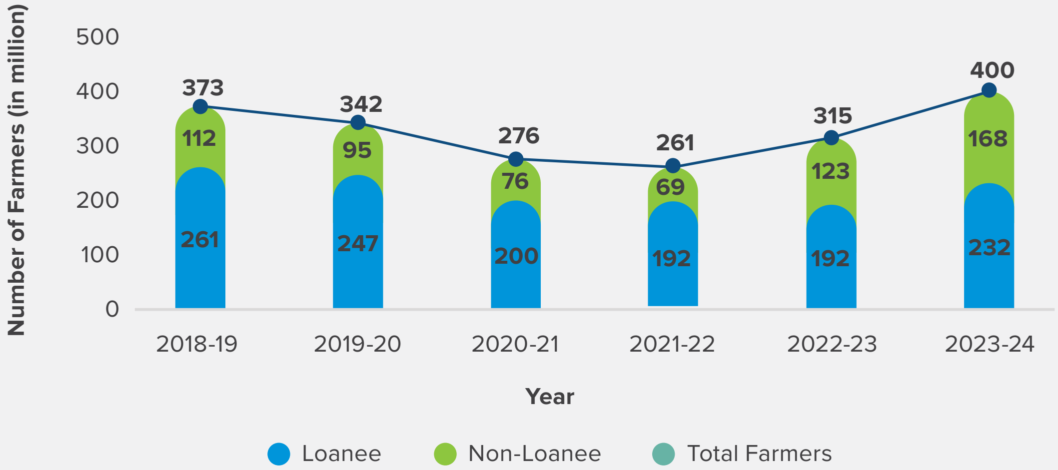
Figure 7.4 Farmers Enrolment (Kharif and Rabi) for PMFBY from 2019 to 2023



Examining Figure 7.4, it is evident that the enrollment of farmers for the Kharif season has reduced from 3 crores in 2016-17 to approximately 2.04 crores in 2022-23. However, we expect around 22% increase in the enrolment for the next season (2023-24) due to increasing coverage of non-loanee farmers and few more states are likely to rejoin the scheme. Similarly, enrollment for Rabi seasons has decreased from 2.0 crores to almost 1.0 crore, as depicted in Figure 7.4, illustrating Farmers Enrolment (Kharif and Rabi) for PMFBY from 2019 to 2023.

The overall farmers enrolment has shown slight increase in recent times (2022-23) as compared with the earlier years (2020-22). The overall enrolment comprises of the farmers participation in both kharif and rabi crops.

Figure 7.5 Farmers Enrolment (Overall) for PMFBY from 2018 to 2023



Source: Ministry of Agriculture and Farmers Welfare & PMFBY

Observing Figure 7.5, though the total number of farmers enrolled for kharif & Rabi crops reduced to 2.61 in 2021-22 as compared to 2018-19 but has gone up to 3.15 crore in 2022-23. However, it is anticipated that farmer enrollment will witness an upward trajectory in the coming years, attributable to various reform initiatives like Farmers outreach and capacity building campaign undertaken by the government over the last 2 to 3 years, increased enrolment of non-loanee farmers, and also expansion of new channels like enrolment through India Post and Mobile applications, etc.

Purchase of Crop Insurance:

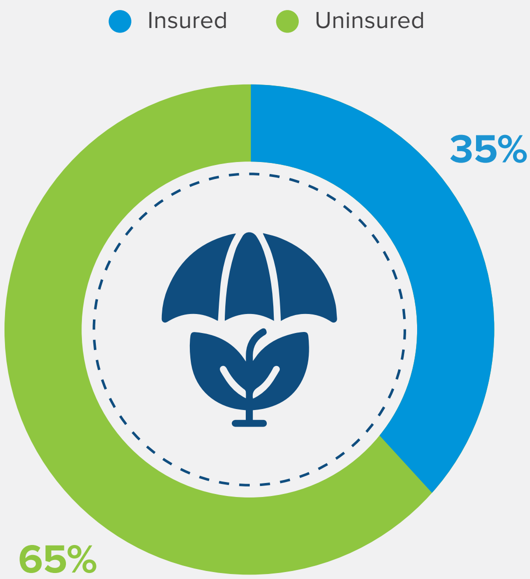
Our study further reveals that, although there is evident interest among farmers in enrolling for the PMFBY scheme, only about 35% of them have secured crop insurance, including the Restructured Weather-Based Crop Insurance Scheme (RWCIS) and other crop insurance schemes.

Figure 7.6, illustrating the Penetration of Crop Insurance, demonstrates that nearly 65% of individuals residing in rural areas lack any form of crop insurance protection for their crops.

The main reasons for the reduction in farmer participation are the relaxation of mandatory enrolment for loanee farmers in 2020, resulting in many loanee farmers not opting for crop insurance at the time of taking a crop loan. Secondly, some of the larger states like Gujrat, West Bengal, Jharkhand, and Telangana have come out of the Central scheme and introduced their own scheme. These changes have resulted in a reduction in farmer enrolment in PMFBY.

Anticipated growth in the insured area of cultivation and increased farmer participation is on the horizon in the forthcoming years. This projection is supported by a rising number of states, including Maharashtra, Odisha, and Andhra Pradesh, planning to provide free insurance to farmers. Notably, West Bengal has been offering crop insurance at a nominal rate of Rs. 1 and some states are likely to rejoin the scheme.

Figure 7.6 Penetration of Crop Insurance

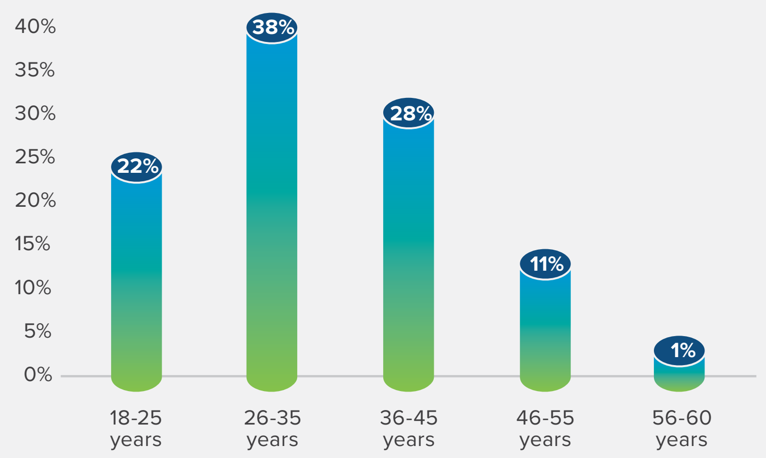


For instance, during the current Kharif season in 2023-24, the enrollment of farmers has surged to 25 million. This increase may be attributed to the growing participation of non-loanee farmers in the current season. Additionally, the introduction of innovative business models such as universal crop insurance, 90-110, and 60-130 stop-loss models has yielded positive outcomes for the scheme. This has, in turn, spurred active participation from states in crop insurance initiatives.

7.3 Profile of Customers with Higher Protection Gap:

We have already observed that socio-economic factors such as age groups, income levels, occupation, and education levels significantly affect insurance penetration and the crop protection gap. This section explores the socio-economic profile of rural customers with a higher crop protection gap.

Figure 7.7 Age-wise Crop Insurance Penetration:



As observed in the chart (Figure 7.7), a large number of young farmers (18 to 25 years and above 45 years) have a higher crop protection gap, with only about 22% insured and 78% having almost a 100% protection gap. Similarly, customers above 45 years also have a significantly higher protection gap, with only 11% or less than 11% insured. Nearly 89% of the people in this segment have a 100% protection gap.

It is interesting to note from the analysis (Figure 7.8) that the majority of customers who have taken some kind of crop insurance are small income holders with less than 3 lakhs annual income. A large number of customers with more than 3 lakhs annual income do not have any crop insurance policy. This suggests that most of these customers with less than 5 or 6 lakhs annual income in rural areas are uninsured and do not have any kind of crop insurance protection. It should be noted that the low and middle-income segments with less than 5 or 6 lakhs annual income in rural areas have a high protection gap in almost all insurance businesses.

Figure 7.8 Income-wise Crop Insurance Penetration:

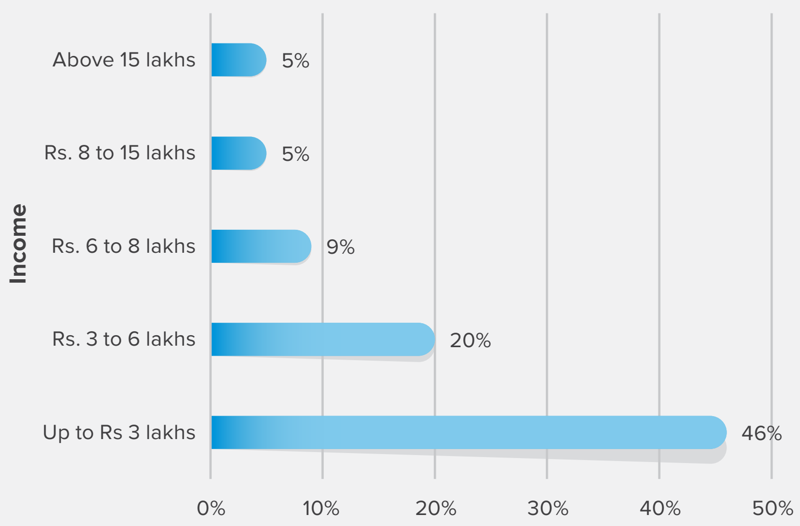
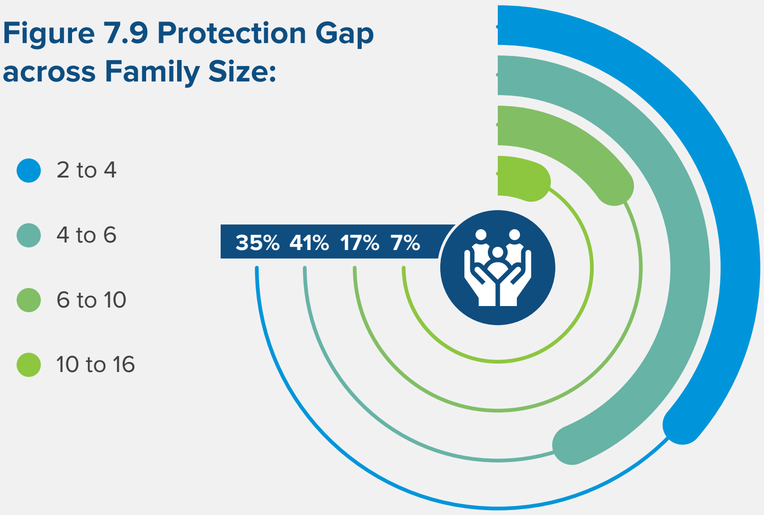
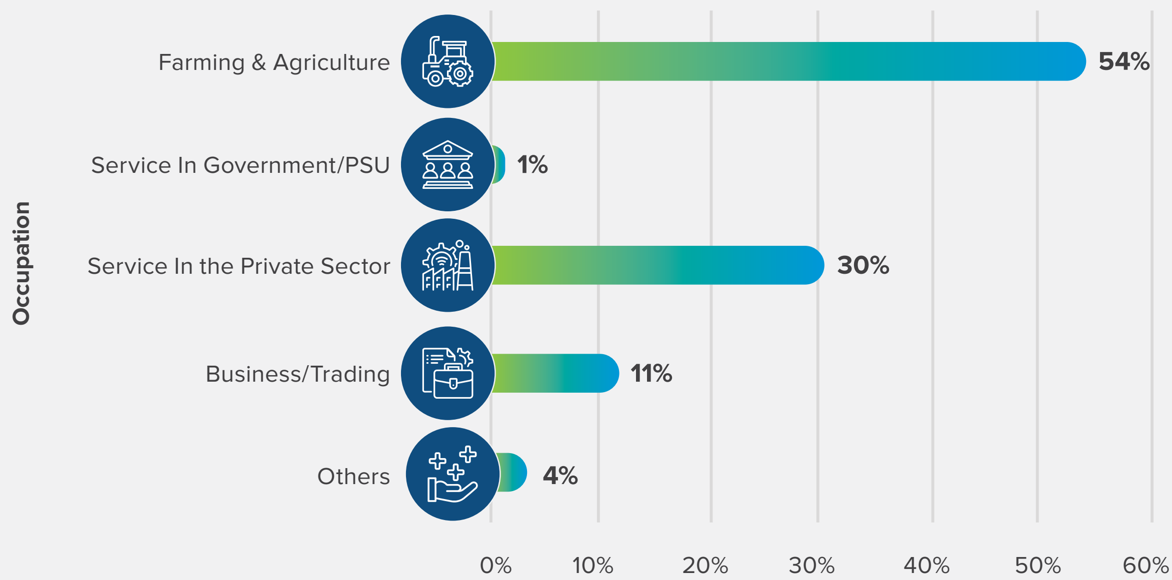


Figure 7.9 Protection Gap across Family Size:



Most of these farmers (57%) have a large family size with almost 4 or more family members dependent on them. Most of these uninsured customers are small and marginal farmers with a land size less than 5 acres. As these customers have a large family size and hold small land size, their livelihood is highly dependent on crop yield, and any loss of yield or farm loss would financially affect them severely. This segment of people needs to be covered under PMFBY or RWBCIS depending on the type of crops they grow.

Figure 7.10 Occupation-wise Crop Insurance Protection Gap:

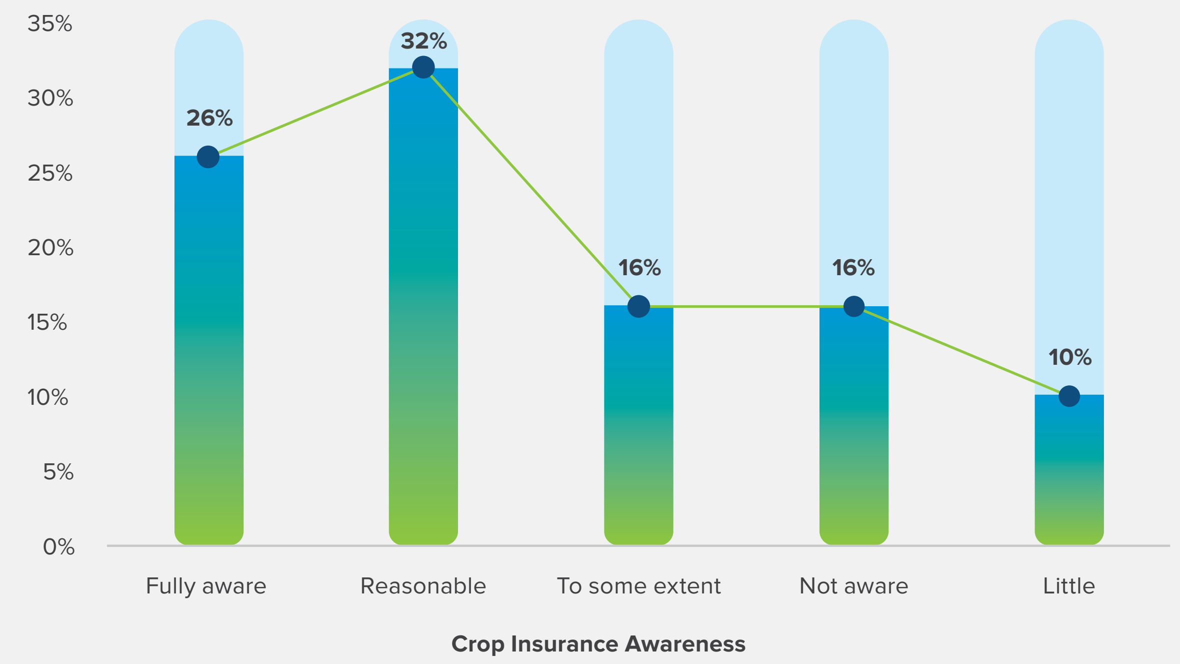


As observed in the analysis (Figure 7.10), nearly 54% of people from rural areas have farming and agriculture as their primary occupation. About 30% of them work in private companies in the unorganized sector. It should be recalled that the majority of these customers working in agriculture and the unorganized sector have a significantly higher protection gap in crop insurance.

7.4 Reasons for Low Penetration among the Farmers:

As discussed earlier, overall, only about 35% of farmers are currently covered under the crop insurance scheme, and the area of crop cultivation insured is also around 34%. This indicates that a significant number of farmers, primarily small and marginal farmers with a land size of less than 5 acres, are yet to be brought under the insurance protection net. **One of the main reasons for the low penetration among small and marginal holders is the lack of awareness and affordability.**

Figure 7.11 Crop Insurance Awareness among the Farmers

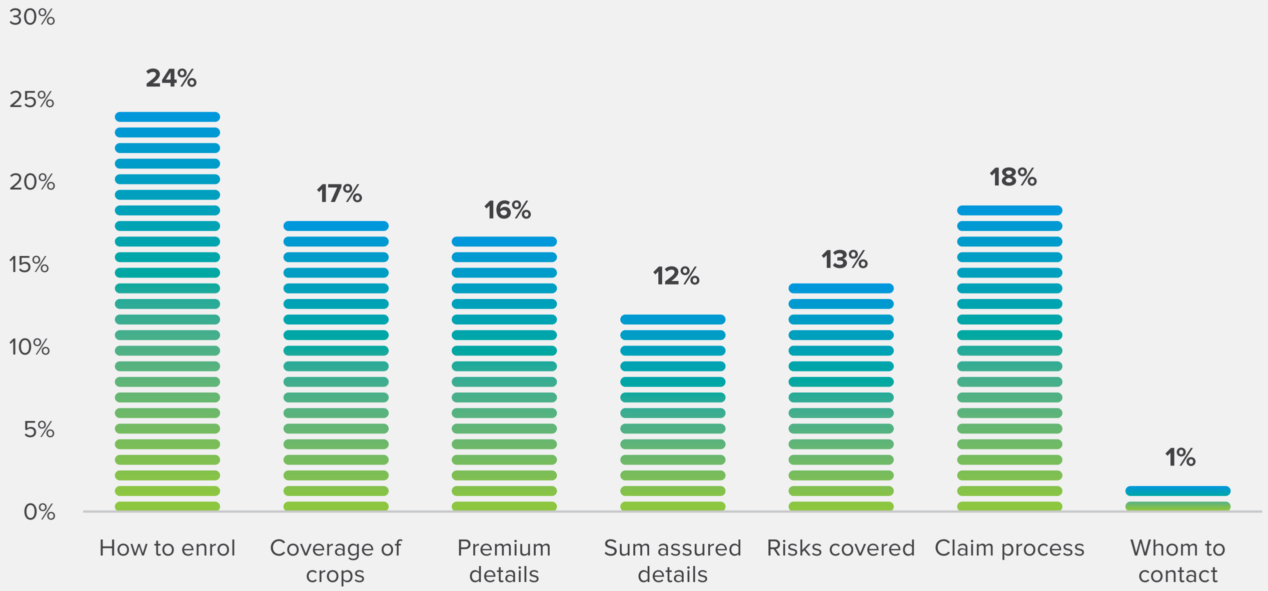


As seen in the analysis (Figure 7.11), only about 26% of people from rural areas are fully aware of crop insurance schemes, while about 32% have a reasonable level of awareness, and the rest are not aware of it. This suggests that all stakeholders, including the government, insurers, intermediaries, and agri-dealers/distributors, should conduct an awareness campaign to sensitize rural people about the importance of crop insurance and how it can protect their crops, agricultural assets, and livelihood from any natural disasters' loss.

7.5 Awareness of Crop Insurance Products:

After assessing the overall awareness level of farmers, it is crucial to delve into their knowledge about the crop insurance products available in the market.

Figure 7.12 Awareness of Crop Insurance Products

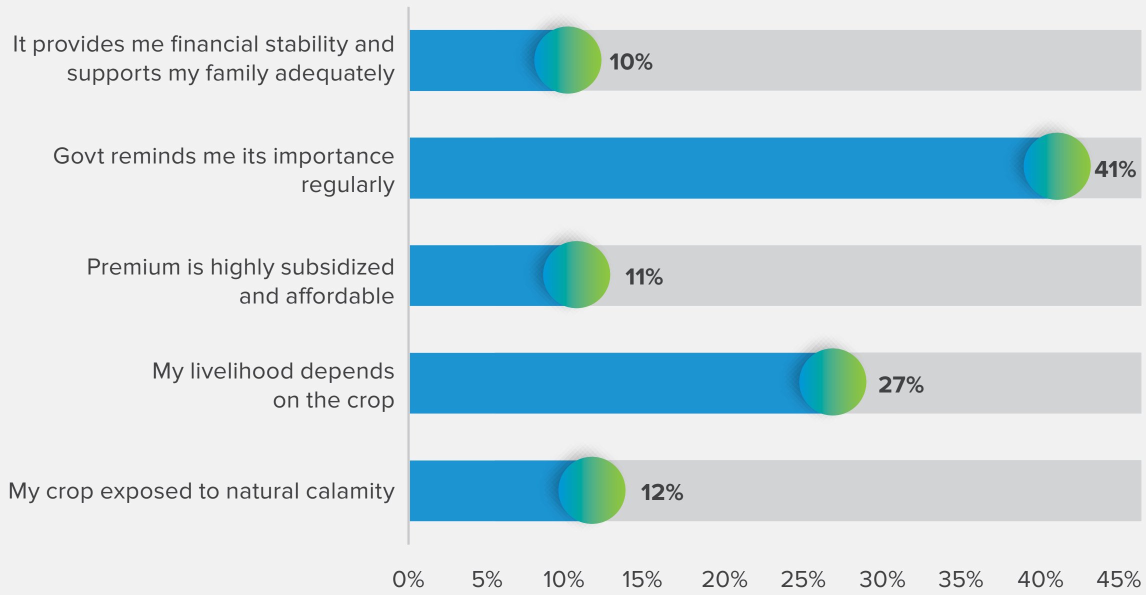


As observed in Figure 7.12, farmers' understanding of policy details such as coverage of crops, the enrolment process, premium & sum insured of their policies, risks covered under the policy, and the claims settlement process, etc., is quite low, with only less than 20% of farmers appearing to be familiar with these aspects.

7.6 Motivation to Purchase Crop Insurance:

While analyzing the reasons for the low penetration of the crop insurance scheme among rural customers, it is crucial to understand their basic motivations to buy crop insurance and also the bottlenecks or challenges they encounter.

Figure 7.13 Reasons for Joining the Scheme



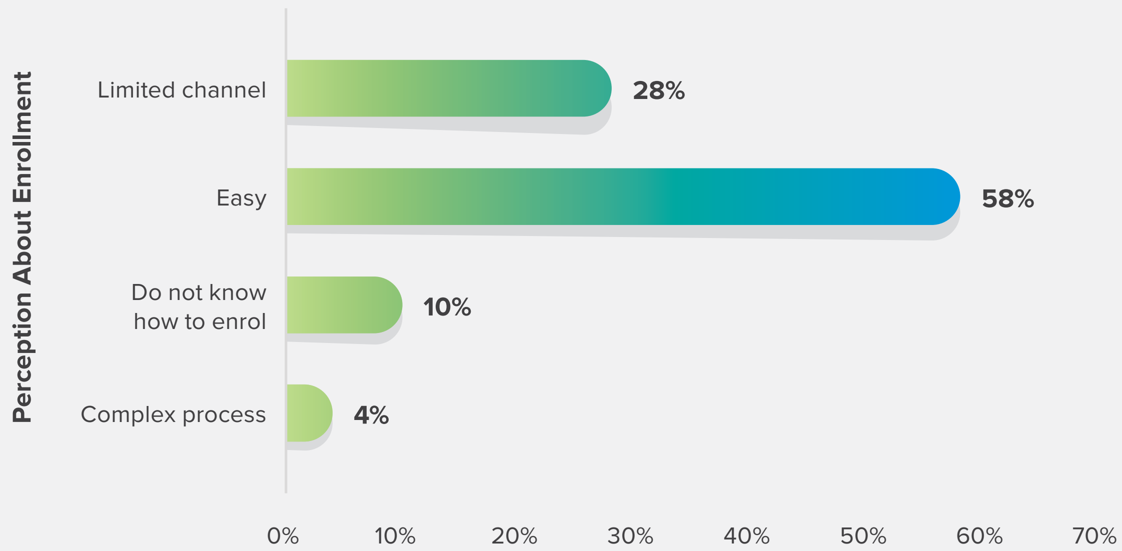
As gleaned from the analysis (Figure 7.13), the primary motivation for purchasing crop insurance is the government's role in creating awareness and emphasizing the importance of risk protection among rural people. Nearly 41% bought crop insurance because government officials consistently reminded them about the significance of risk protection. Additionally, 27% of customers feel that crop insurance is an essential risk protection cover to safeguard their livelihoods.

Other significant reasons influencing their decision include concerns about their crops being exposed to natural calamity risks (12%), the belief that insurance provides financial stability and supports their family with reasonable financial compensation (10%), and relief in case their crops are damaged due to any of the covered perils. Approximately 11% of customers perceive that the premium rates under the current crop insurance scheme (PMFBY & RWBCIS) are highly subsidized by the government.

7.7 Perception about Enrolment of Crop Insurance:

Easy onboarding of customers, particularly those in rural areas, facilitates the purchase of crop insurance. It is also one of the crucial factors influencing customers to buy; if the enrolment process is easier and simpler, rural customers or farmers are more likely to come forward to purchase insurance policies.

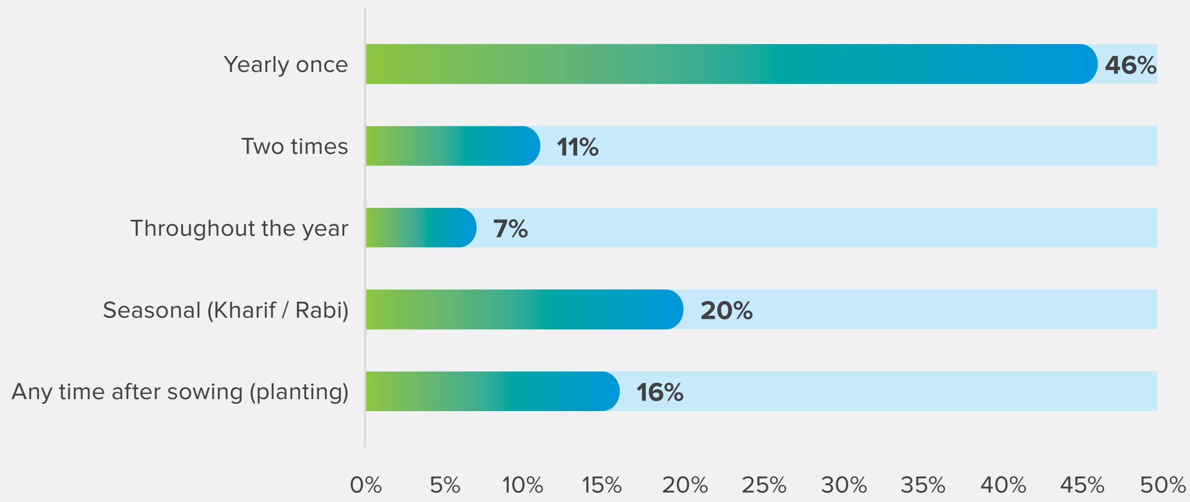
Figure 7.14 Perception of Enrolment Process of Crop Insurance



As inferred from the analysis (Figure 7.14), nearly 58% of customers perceive that the enrolment process is easier, while a considerable number of people (28%) commented that there are limited channels available for enrolment, and 10% of them are unaware of the enrolment process. Although the government has made the enrolment process relatively easier by making it available through various channels, including banks, CSC, and intermediaries, etc., the process can still be embedded across the agriculture value chains, including agri-commodity dealers, along with their purchase of various agricultural products like seeds and fertilizers. Many farmers believe that cooperative banks and RRBs in rural areas can help in creating the necessary awareness and bundle crop insurance with their crop loans and other personal loans. It's noteworthy that the government has recently made crop insurance optional for loanee farmers.

In addition to perceptions about enrolment, respondents were asked to indicate their convenient time to buy the policy. Currently, farmers can enroll only during the time window available from April 01 to July 15 the last date of receipt of applications for kharif and rabi season it is from October 01 to December 15.

Figure 7.15 Time window for the purchase of the policy

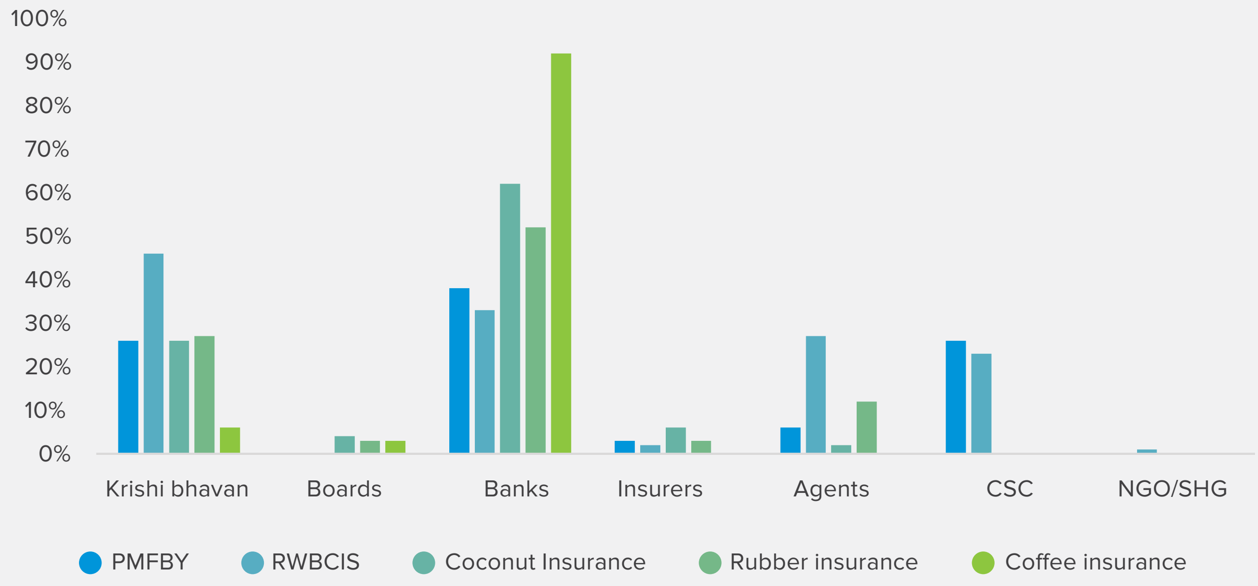


When commenting on their convenient time to purchase crop insurance policies, nearly 46% of farmers suggested that enrolment should begin during a particular month once every year rather than the specific time window currently being followed. This would make the enrolment process easier, and secondly, enrolment at the beginning of the year would significantly reduce adverse selection and moral hazard issues. Many farmers suggested that the duration of the crop insurance policy could be made 12 months yearly rather than specific to seasons, as many of them have changed their sowing patterns due to climate risks and the availability of better prices for their crop yield.

7.8 Preference of Channels for the Enrolment:

The availability of a wider range of channels for enrolment in the scheme would further simplify the enrolment process and reach a larger number of customers in rural areas.

Figure 7.16 Preference of Channel for Enrollment of Crop Insurance



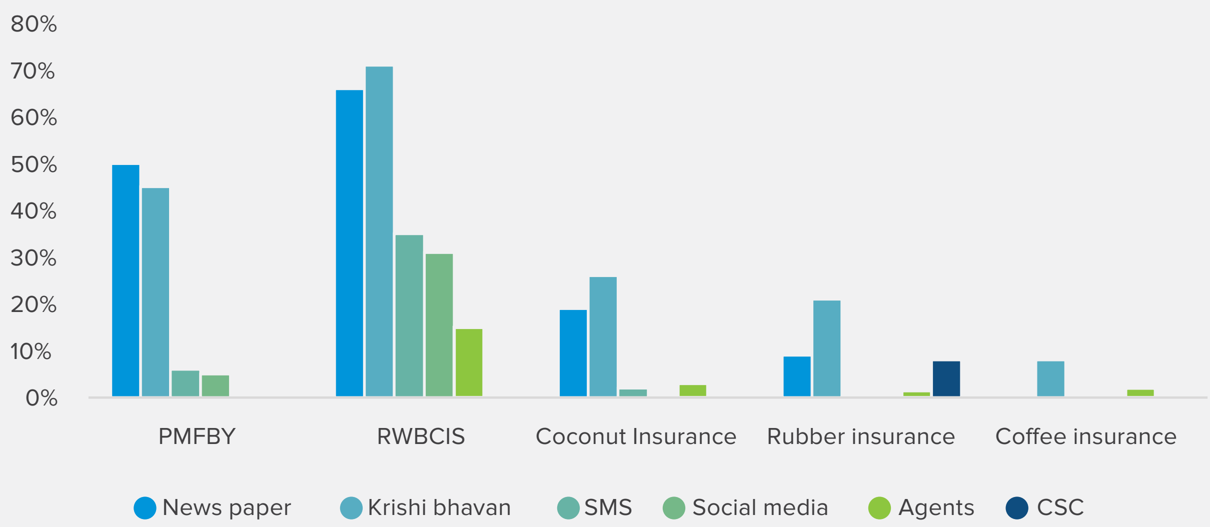
As observed in the analysis (Figure 7.16), the major channels for purchasing crop insurance are banks and government offices, particularly rural co-operative banks and nationalized banks where crop insurance is currently available. The second preference is government offices or Krishi Bhavan in the respective states; agriculture offices and allied sectors can contribute to improving enrolment. Enabling enrolment through digital channels with mobile applications would make the process of buying crop insurance easier and more convenient.

In addition to these, new channels and types of intermediaries like POSPs, Banking Correspondents (BC), Agriculture Credit centers, and integrating it with agricultural purchases at agri-commodity dealers would help in expanding crop insurance penetration.

7.9 Preference of Publicity and Media for Awareness Creation:

Publicity and social media campaigns play a significant role in creating the necessary awareness about crop insurance and motivating rural customers to choose the right insurance schemes.

Figure 7.17 Preference of Media for Accessing Insurance Information

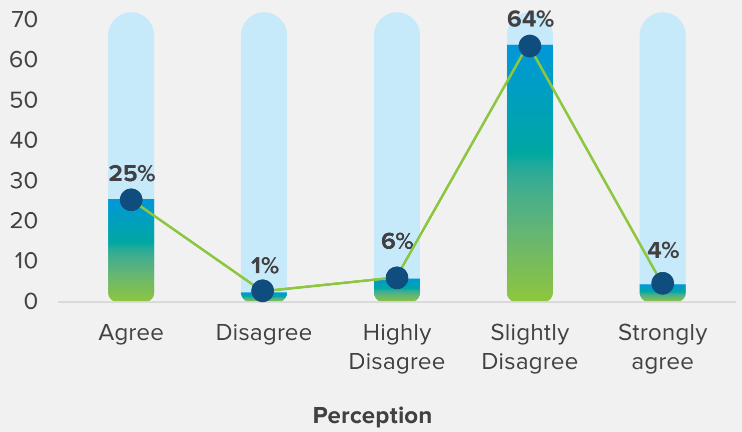


As inferred from Figure 7.17, most farmers and rural customers prefer advertisements or publicity at banks, Krishi Bhavan & government offices, newspapers, mobile SMS, social media, and publicity & hoardings at prominent places, particularly rural marketplaces and public spaces. This preference provides them easy accessibility to information related to the crop insurance scheme. Publicity through mobile vans, auto-rickshaws, and other public transports can facilitate the easy dissemination of product information to customers. Similarly, the participation of stakeholders, i.e., government officials, insurers, and intermediaries, through special enrolment campaigns in agricultural fairs, festivals, market yards, etc., would contribute to increasing farmer penetration in crop insurance.

7.10 Perception about Sum Insured or Coverage Adequacy:

Following crop insurance penetration, the second factor affecting the crop protection gap is inadequate coverage or insufficient sum insured in meeting crop losses and agriculture-related risks.

Figure 7.18 Adequate Coverage of Crop Risks

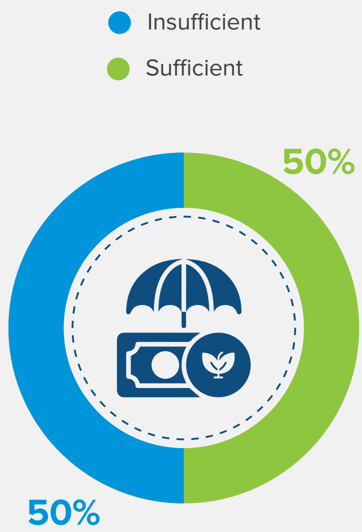


As seen in the analysis (Figure 7.18), 70% of farmers believe the current scheme falls short in covering risks like market, transportation, and storage risks, as well as revenue loss. They also express concerns about inadequate coverage and sum insured to meet increased cultivation costs and other agriculture-related losses.

A significant number of farmers (50 %) perceive that the sum insured in their policies is highly inadequate. Under PMFBY, the sum insured is fixed based on the scale of finance determined by the district crop coordination committee. However, differences exist among the scale of finance and the actual cost of cultivation of the crops that farmers grow. This perception is consistent among all types of farmers growing different types of crops, including food crops, commercial, and plantation crops. The main reasons for such perception are the increased cost of labor and agricultural input, including fertilizer costs, leading to an increase in the actual cost of cultivation.

Comparative analysis of the average cost of cultivation and the amount of claims paid for major crops cultivated (per hectare) indicates that the claims paid are grossly low, suggesting that the sum insured or the loss assessment should be made reasonable enough to cover at least the cost of cultivation of the insured crops. The sum insured for horticulture and commercial crops should be rationalized by considering the actual cost of cultivation, including labor and maintenance charges, the cost of replanting, and the minimum support price fixed for the crops.

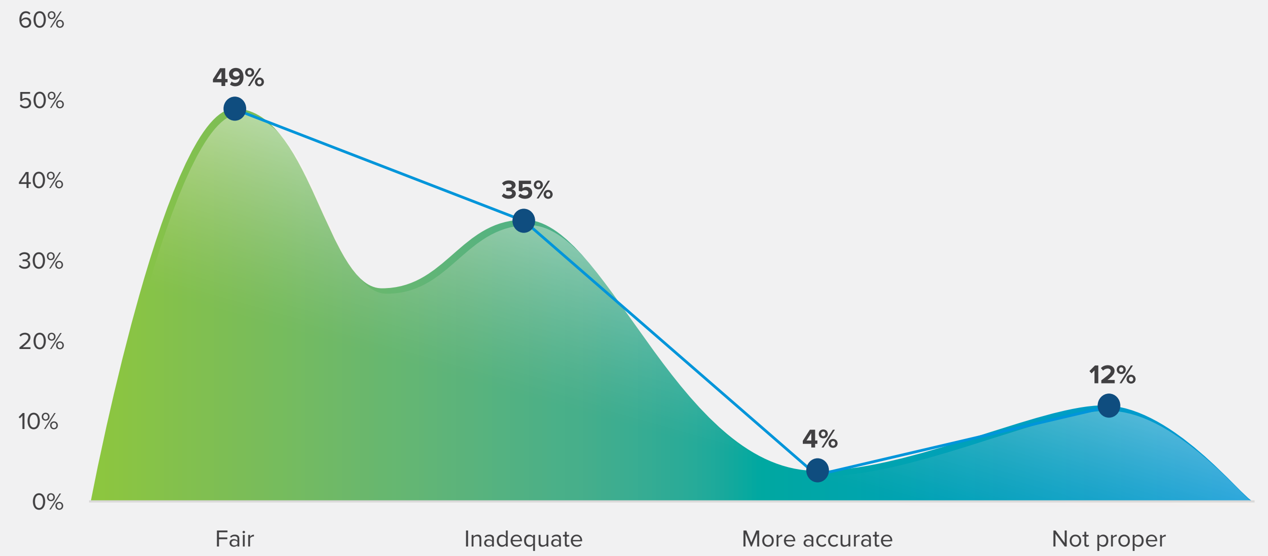
Figure 7.19 Perception About Coverage Adequacy



7.11 Perception of Loss Assessment:

Properly assessing the loss of damaged crops or yield loss is crucial for estimating the actual loss suffered by farmers. Assessment becomes challenging, especially when crop damage is caused by natural catastrophic events, leading to large-scale damage over a significant crop area. Conducting loss surveys during calamity seasons becomes more difficult due to the inaccessibility of affected areas and the need for a substantial workforce to conduct the survey. Similarly, assessing losses becomes more complex during localized calamities like storms, landslides, or wild animals causing crop damage, as the affected area becomes very narrow, requiring a detailed assessment.

Figure 7.20 Perception of Process of Loss Assessment

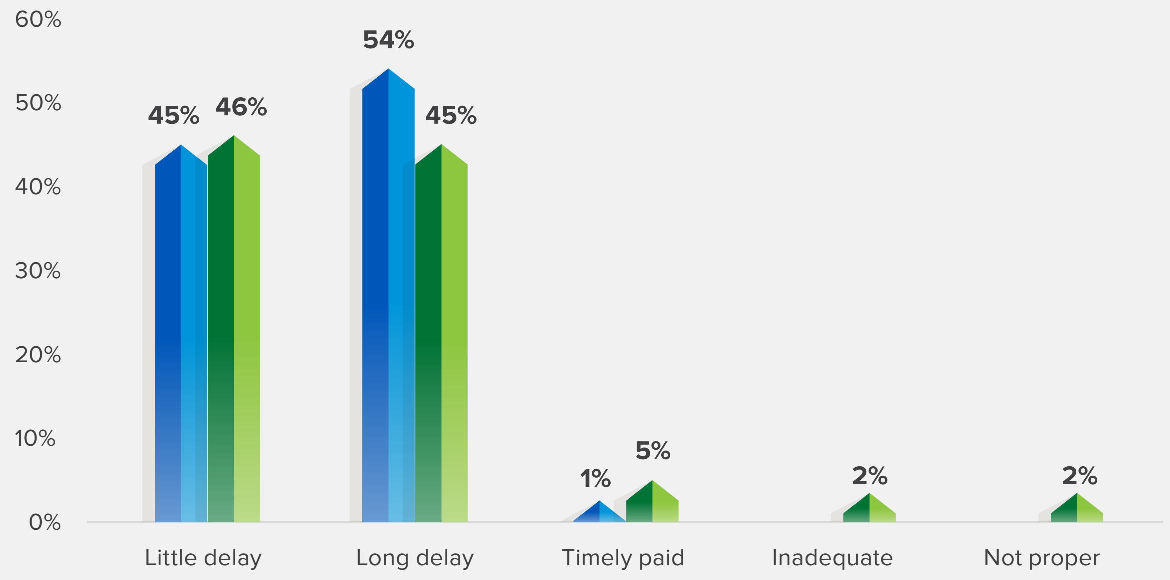


Due to the aforementioned reasons, the assessment results in significant disparity among individual farmers. As seen in the analysis (Figure 7.20), only about 49% of farmers are satisfied with the loss assessment and consider it fair. Nearly 47% perceive that the loss assessment is not proper, and the assessed amount is highly inadequate. As discussed earlier, manual assessment of crop damage due to natural calamities, localized calamities, and post-harvest losses requires extensive manpower and time, leading to disputes and disparity among farmers. It is suggested that the availability of satellite images, big data, sensor-based data, and the use of technologies like geospatial technology, GIS, and applications of Artificial Intelligence can help in assessing losses more fairly and accurately.

7.12 Perception of Claims Settlement:

A fair assessment of loss and timely settlement of claims is crucial in shaping farmers' perception of insurance and in establishing trust with insurance companies.

Figure 7.21 Perception of Claim Settlement



The overall perception of the settlement of crop insurance claims is very poor, as evident from Figure 7.21. Over 95% of customers perceive that there is a delay in settling claims, with 55% feeling that the delay is significantly longer and 45% perceiving a slight delay in receiving claims from insurance companies, both under PMFBY and RWBCIS. The main reasons for the delay in claim settlement are delay in submission of yield statistics which are estimated using the crop cutting experiments, inconsistency in yield data in certain locations and data errors.

7.13 Key Findings and Suggestions for Bridging the Crop Protection Gap:

The insured area of cultivation and the sum insured for crop insurance in India has decreased recently, particularly from 2021 to 2023, compared to the area insured in 2018-19. The number of insured farmers has also dropped from 6.1 crores to 5.2 crores in 2023.

The primary reason for low penetration is the government's decision to make crop insurance optional for loanee farmers by removing the mandatory requirement. Consequently, many loanee farmers have not renewed their crop insurance. Additionally, several state governments, including Jharkhand, Bihar, West Bengal, Gujarat, and Telangana, have opted out of the PMFBY scheme, introducing universal crop insurance models with nearly free coverage for all farmers in their states.

However, enrollment for the current seasons in 2023-24 has increased due to government initiatives and the positive experiences with various business models, such as 80–110% and 60–130% stop-loss-based models, as well as universal crop insurance models. These initiatives are expected to significantly enhance crop insurance penetration in the upcoming years.

Higher crop protection gaps are observed among young customers (18 to 25 years) and middle and old-aged farmers (above 45 years). Low penetration among young customers may be due to a lack of awareness about the scheme and a perceived need to protect their crops against related perils.

Similarly, low-income individuals with an annual income of less than 5 lakhs also have a greater crop protection gap. Though crop insurance premium rates are highly subsidized under PMFBY or RWBCIS schemes, the main reasons for such higher penetration are a lack of awareness and inadequate coverage.

Most farmers (86%) in India are small and marginal farmers with lower education levels. Many of them come from large families of above 4 members, and their entire family's livelihood depends on agriculture income. Any loss from agriculture would make them highly indebted and demotivate them from farming. The government should make educating low-income small and marginal farmers mandatory for insurers and intermediaries.

Many farmers, particularly small and marginal farmers, are not aware of the coverage of the scheme, including perils covered, the amount of sum insured, premium paid, and exclusions, etc. A special enrolment drive with a product awareness campaign emphasizing the special features of the scheme and the importance of risk protection against catastrophic risks should be organized during festivals and agri-seasonal periods, particularly at the beginning of sowing and harvesting seasons.

As advised under the revamped operational guidelines of PMFBY (2.0), at least 0.5% of the premium collected should be utilized by insurers for the publicity and promotional measures of the scheme, especially for creating such an awareness drive and special enrolment campaign. Insurers should collaborate with state government agriculture departments, intermediaries, NGOs, and Farmers Producers Organizations (FPO) to carry out the special enrolment drive using new-age technologies, including social media and mobile applications.

State governments should effectively market the scheme through appropriate intermediary channels with concerted efforts. Brokers, Agents, POSPs, Banking Correspondents (BCs) can play a major role in identifying eligible farmers and establishing their credibility. The support of Local Leaders, village presidents, and agriculture officers can be effectively used for marketing and enrolling farmers under the scheme.

Crop insurance should be made compulsory for loanee farmers and small & marginal farmers. Premium financing can be provided by microfinance institutions and rural banks. The government can attract the agriculture and allied industries to provide premium subsidies for the coverage of small holders.

A team of agriculture officers and insurers should monitor the enrolment progress or coverage of crop insurance among loanee farmers. A group insurance scheme may be introduced at the local community level or farmers' producer organizations, NGOs, SHGs, agriculture and commodity boards of the respective states. This would help in improving penetration and reducing moral hazard and adverse selection among small holders.

A specific enrolment target with a suitable incentive scheme can be developed for all key stakeholders like agriculture officers, intermediaries, MFI, NGO, and farmers' producer organizations. A periodic performance review mechanism needs to be put in place for regular monitoring and ensuring faster penetration among small and marginal farmers.

The quality of weather data needs to be strengthened with the help of satellite images, remote sensing-based radar data, and ground sensors along with current weather stations/AWS data for proper claims assessment under RWBCIS.

Climate change causes greater variations in weather conditions, and weather patterns change frequently at the insurance unit level (gram panchayat or district level). Hence, term sheets of the weather-sensitive crops need regular revision. Ground-truthing using sample field observations, yield data, etc., should be used to cross-validate the weather data and also for product customization and pricing.

Parametric-based product solutions with blockchain technology would be appropriate for weather-sensitive crops (food crops, vegetables, coffee, tea, pepper, etc.). It would ensure instant claims payment to farmers.

A smartphone-based Agriculture application with geo-tagging features must be introduced for enrolment, policy issues, crop health monitoring, loss assessment, claims settlement, etc. Such applications should be integrated with the PMFBY Agriculture web portal of the scheme, which would help in the seamless transfer of crop cultivation, yield data, welfare and sensor data, policy information, claims reporting and assessment, etc. This would also help in ensuring prompt settlement of claims and enable direct credit of the compensation to the beneficiary account instantly.

Assessing losses during localized calamities and post-harvest stages becomes challenging as insurers are inundated with thousands of claim notifications, making the assessment process cumbersome.

As nearly 47% of farmers are not happy with the assessment of loss, particularly relating to localized calamities and post-harvest assessments, the crop loss assessment needs to be improved to be fairly close to their actual loss. For this purpose, new technological tools like geospatial technology, AI, and Virtual Reality-based assessment using drones with mobile applications, etc., can be utilized.

A smartphone application with video/picture-based assessment with geo-tagging of the field can expedite the loss assessment. Dedicated software with an AI & ML algorithm or blockchain technology can help in automating the loss assessment and claims settlement process.

Bridging the crop insurance protection gap requires concerted efforts from key stakeholders, including central and state governments, regulators, insurers, reinsurers, agriculture partners, and intermediaries. These efforts should focus on creating awareness and emphasizing the importance of crop insurance among farmers, developing customized products that address evolving agriculture risk landscapes and practices, and providing premium subsidies and claims support.

Fostering collaboration between the government, private insurers, financial institutions, and agricultural partners to share risks and provide collective support in necessary capacity building is crucial. This collaboration can facilitate the seamless implementation of the scheme across all states, reaching out to farmers in need. Special attention should be given to small and marginal farmers, ensuring adequate protection and coverage for risks and losses throughout the agri-value chain.

Furthermore, encouraging the adoption of risk mitigation practices, including providing hybrid seeds, fertilizers, and technical support, will help build resilient agricultural practices and promote sustainable agriculture businesses.

8. Conclusion and Way Forward

In summary, this study has identified key factors contributing to the widening protection gap in various segments of the insurance industry. The primary culprits for the high protection gap are lack of awareness and financial literacy, affordability constraints, product complexity, and a general lack of perceived need for sufficient risk protection among customers. The intrinsic value of insurance often eludes many customers, resulting in hesitancy from both individuals and businesses to bolster their insurance coverage.

Insurers and brokers play pivotal roles in fostering a positive mindset among customers. Engaging with clients throughout the entire value chain, from understanding their requirements to claims settlement, is crucial. Offering value-added services, such as customized risk covers, global wrap-up options, risk management, and claims assistance, can contribute significantly to clients recognizing the value of insurance and consequently improving protection adequacy.

On the distribution front, there is still substantial work to be done to explore innovative channels beyond traditional avenues. Leveraging an Integrated Technological Architecture, in conjunction with existing infrastructures like microfinance institution networks, NGOs, banking networks (Jandhan), postal networks, CSC, and web aggregators, could substantially narrow the protection gap.

Regulatory initiatives from organizations like IRDAI, including the establishment of Bima Sugam (an all-in-one online portal for insurance-related activities), the introduction of standard products like Bima Vistaar, and the creation of dedicated channels like Bima Vahak for women in rural areas, along with liberalized licensing for insurers, especially facilitating entry for insurtech and fintech companies, are crucial steps to enhancing insurance inclusion and penetration.

Nevertheless, a robust push from the government is essential to expand the insurance safety net across all customer segments, businesses, and industries. This can be achieved through offering premium subsidies, tax benefits, and making certain insurance schemes, such as Nat-Cat Insurance and health insurance, mandatory in disaster-prone regions. Collaboration between state governments and insurers/reinsurers/brokers to tailor disaster risk insurance for specific regions, with the option to seek additional reinsurance support, would enhance risk coverage and accessibility for innovative risk solutions at the regional or state level.

In conclusion, closing the protection gap demands a collective effort from all stakeholders - government, regulators, insurers, reinsurers, and intermediaries. This effort involves creating awareness, developing innovative risk solutions, ensuring affordable pricing, and establishing customer-friendly processes and value-added services. Such endeavors will encourage customers to step forward and adequately protect against risks, contributing to the creation of a more resilient society.

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