

**Date:** 16 February, 2017  
**Venue:** The Club, Mumbai  
**Timings:** 0900am - 0600pm

Jointly Organized by Advisory Group on Health Care Insurance & Advisory Group on Sustainable Development and Microinsurance

## Speakers Profile



### **Arman Oza**

**Board Member, National Insurance VimoSEWA Cooperative Ltd.**

Arman Oza is an independent consultant working in the areas of insurance, risk management and training. He is also on the board of VimoSEWA – a microinsurance cooperative promoted by the Self Employed Women's Association (SEWA) in India. He is a member of the Governing Board of Consumer Education and Research Society (CERS) a leading consumer rights organization in India.

Arman has worked with public and private sector insurance companies in India for 15 years in various capacities and has in-depth exposure to all areas of insurance like underwriting, training, marketing, operations, claims and legal.

He has handled international consulting assignments in for organizations like Asian Development Bank, Impact Insurance Facility of the International Labour Organization and Munich Re Foundation in Sri Lanka, Nepal, Bangladesh, Namibia, Kazakhstan, Azerbaijan, People's Republic of China and Uzbekistan.

His articles on various aspects of insurance like regulation, HRD, marketing, claims and consumer education have been published in insurance journals in India including the IRDA Journal. He has co-authored a case study on VimoSEWA published by Microinsurance Innovation Facility and The Study of Landscape of Microinsurance in Asia and Oceania published by Munich Re Foundation.

**Topic:** Health Insurance Product design for low-income women centered groups

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### **Prabhakar Veer**

**Sr. Director  
Sutherland Global Services**

Prabhakar is working as Sr. Director with Sutherland Global Services and leads their Actuarial and Cat Risk Modeling practice. He has approx. 15 years of experience, in Actuarial and Insurance Analytics supporting North

American, London and Lloyd's market – Personal, Commercial, and Specialty lines of business. He has done masters in statistics from University of Delhi, pursuing actuarial accreditation from IAI and has about a dozen publications or research paper to his credit.



**Atul Varma**  
Sr. Actuarial Analyst  
Sutherland Global Services

Atul has done his Masters of Sciences (M.S.) in Mathematics from Indian Institute of Science Education and Research and received INSPIRE fellowship for 5 years from Dept. of Science and Technology, Govt. of India. He is currently pursuing my Actuarial accreditation from The Institute of Actuaries of UK. Professionally, he has 3+ years in Analytics and Actuarial area in:

- Primary Insurance Reserving & Asset Liability Modelling
- Inference Statistics and Predictive Modelling
- Supervised/Unsupervised Machine Learning

**Topic: “Application of unsupervised learning and Decision Trees on Big Data to validating Actuarial Product designing assumptions”**

**Abstract:**

Identifying patterns in large volumes of real-time data to establish risk is key for the insurance business to be competitive. Big data analytics which is quite prevalent in other sectors is yet to set its mark in insurance industry. Our attempt is to popularize it's uses subject to availability of huge datasets.

This case study uses a combination of descriptive and predictive models applied on big data (linked to insurance products as well as customers from sources within and outside the Insurance company's database) to understand the need of policy holders thus, validating assumptions of policy designing and pricing. The method includes machine learning techniques of unsupervised clustering and decision trees on big data.

The approach is intended to help solve challenges like, (a) Why people (soft lead) don't buy insurance policies? (b) explore why a prospect/hot lead (i.e. even after expressing interest) is not converted into final sale and (c) Factors that can help increase the conversion (successful sale effort) by analyzing trends and behavioral patterns in Policy buyer's. Once we have understanding of these, then only a pricing actuary can have the confidence in his/her new business and renewal assumptions.

The paper also investigates various factors impacting sale of insurance policies after the policy is designed and launched in the market. By understanding the demand of existing customers, it sets up the steps to identify potential customers. Primary and derived variables from (a) CRM database, (b) demographics data, (c) agent conversations and (d) information scraped from various web and social media sources were used to create model variables and consequently to explain the buying behavior of policy holders.

Please note that the methods are not new or path breaking! Simply, rather than being applied on quantitative data we applied it on behavioral data and let the machine do unsupervised clustering/modeling. Interesting fact was that it behaved like a human would have (due to his/her gut feeling or experience).

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**Mayur Ankolekar**  
Consulting Actuary  
Ankolekar & Co

Mayur Ankolekar is a Consulting Actuary based in Mumbai, India. He originally trained as a Chartered Accountant and a Lawyer, and has been a widely experienced practitioner for over two decades and a half. Over the past few years, he has worked on insurance and employee benefits. He has published research in microinsurance, and consulted with multilateral and other organizations in India, Bhutan, Cambodia, Egypt, Jordan, Malawi, Nepal, and Vietnam. He is a fellow member of the Institute and Faculty of Actuaries, UK and the Institute of Actuaries of India.



**Vishwanath Mahendra**  
Appointed Actuary and Chief Risk Officer  
Apollo Munich Health Insurance Company Limited

Vishwanath Mahendra is working as an Appointed Actuary and Chief Risk Officer in Apollo Munich Health Insurance Company Limited, India. He is associated with Apollo Munich since 2008 and has been instrumental in setting up actuarial and analytics functions in the Company.

He has over 20 years of experience in Analytics, Actuarial and Finance domain in some of the best known companies.

**Topic: Pricing with deductibles - Stochastic Vs. Financial Economics Techniques: Practical Examples**

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**Rajesh Dalmia**  
Senior Partner  
Ernst & Young's

Rajesh Dalmia is a senior Partner with Ernst & Young's India practice, providing advisory services to Insurance companies. He has been working in the insurance industry for 15+ years as a consultant, and has also served as an Appointed Actuary for one of the largest Indian Insurers. As Appointed Actuary, Rajesh has had extensive interaction with the Board and the regulator on various actuarial matters.

Rajesh has deep experience and expertise in the areas of modelling various insurance products and projections. Rajesh is the peer reviewer to a few insurance companies in India. He has also led the statutory

valuation and embedded value projects for various insurance companies.

**Topic: Future Benefit Reserve in Health Insurance**

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**Kamlesh Gupta**  
Head of Valuation  
Birla Sun Life Insurance Co. Ltd.

Kamlesh is head of valuation at Birla Sun Life Insurance. He has more than 13 years of experience in life insurance/reinsurance industry covering reinsurance pricing, actuarial modelling, statutory valuation and reporting, shareholder reporting, experience studies and reinsurance administration. Kamlesh is a **member of the Sustainable Development and Micro Insurance Advisory Group.**

**Topic: Does bundling a different risk with health insurance improve value for low income persons?**

**Brief on the topic:** Bundling in insurance industry is not uncommon. However, it is interesting to look at it from the perspective of value enhancement specifically for low income persons. The presentation tries to answers some relevant questions on bundling: What exactly is bundling? What kind of different benefits can be bundled with health insurance? What are the relevant regulatory provisions on bundling? How does bundling impact the cost? Additionally, the presentation covers the insights emerging from research as well as national and international experience.