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"A noble man's thoughts will never go in vain. –Mahatma Gandhi."

"I hold every person a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavour themselves by way of amends to help and ornament thereunto – Francis Bacon"

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Message From The Chief Editor



It's indeed extremely refreshing to catch up through this column after the end of the 19th Global conference of Actuaries which was scheduled on 30th-31st January, 2018. I would like to take this opportunity to thank each and everyone involved in managing the GCA event and also to those who made the efforts to attend it. The event was very professionally managed. Main attraction of the event was the large LED screen which ensured that the text in the presentation was even visible to the audience sitting in the last row. Further, there was significant enhancement in the use of technology for quick registration and simplified check out process.

Overall it was a successful event with lot of applause from attendees.

The event was attended by over 750 people from all across the world. The conference was attended by delegates from actuarial profession in UK, USA, Australia and many other countries. Chairman from IRDAI and PFRDA addressed the delegates. Twenty two sessions were conducted over a period of 2 years in the area of Life, General, Pensions, Investments, data analytics, Risks, M&A, IPO and business management.

IAI 2018 AGFA award was an event

not worth a miss with excellent cultural programs. Further, the beauty of the event was to honour Mr. Liyaquat Khan, Past President of IAI for his immense contribution to the profession. The profession is indebted to the contribution made by him for the evolution of ASI and turning it into a global profession. We from Actuary India, wish him a healthy and pleasant time ahead.

The profession is passing through an interesting phase. There are only 24 insurers and only 33 non-life insurers. We have over 375 qualified actuaries in India and this number is growing rapidly. This is likely to lead to supply of actuaries non-traditional areas of practice increasing the penetration of the profession into banking, investments, investment banking, wealth management, risk management, data analytics and many more avenues. IAI is working to strengthen its marketing team and taking initiative to target current and potential future employers to enhance the opportunities available to its members.

I firmly believe that some of these initiatives will lead to generation of fairly good amount of employment for actuarial students and qualified actuaries in non-traditional areas.

I look forward to this and with this note I will like to sign off now.

Introductory Address - Mr. Sanjeeb Kumar, President, IAI



Honorable Chief Guest of the seminar, **Mr T S Vijayan**, Chairman of IRDAI, Mr V K Sharma, Chairman of the LIC of India, CEO of RGA India, Mr K S Gopalakrishnan and my colleagues from the Institute, **Mr R Arunachalam, Vice President and Mr D C Chakraborty, Chair of External Affairs and Research Committee. I extend warm welcome on behalf of our Institute.**

Special welcome to distinguished guests- **Mr Nilesh Sathe**, Member Life, IRDAI; **Ms Pournima Gupte**, Member Actuary, IRDAI, Senior delegates from IRDAI, **CEOs** of Insurance companies from India and abroad, my colleagues from the Council, Current and past presidents of actuarial bodies attending the event, dignitaries from overseas and from India, and my dear delegates.

To all delegates, on behalf of Institute, I express my heartfelt gratitude for your participation & welcome you all to the important

and prestigious flagship event of our Institute **"19th Global Conference of Actuaries"**, which brings experts from various domains from across the world on a common platform.

The participation of members from global community is especially encouraging as it re-affirms the confidence & faith that the Global Industry has in India, one of the fastest growing economy of the world.

Also let me say that it is encouraging to see the diversity in the profile of speakers; diversity in the profile of delegates; diversity in the areas of practices ranging from traditional areas of Life & General Insurance, Pension, to emerging areas of Risk, Data Analytics and business strategy and innovations where actuaries are expanding into.

I, therefore, believe that it's a unique opportunity for all of us to interact, share local and global knowledge, identify the local & global trends in the industries.

For students and our young actuaries attending the event, let me say that this is a unique opportunity to prepare themselves for opportunities that lie ahead. So the theme of the GCA - **"Actuaries - through Crystal Ball"** aptly covers it. This is the time to look into the future using the crystal ball and be prepared for challenges and opportunities ahead,

Actuarial Profession and activities- A Repertoire

Let me briefly share some numbers/ statistics:

- We are old institute as well as new
 - Old because our foundations set back in September 1944 when our erstwhile body, ASI was formed.
 - We have been the full member association with the IAA since last 38 years.
 - We have quite a few members who have even completed 50 years of fellow membership



- New in the sense that because 94% of members are young and bright students

- We have total membership of 8751 of over 8200 students and 160+ Associates. Our Fellow membership has also increased to 375 of which 39 qualified during last one year.

- We are net exporter of actuarial services - over 20% of fellows as well as students work either overseas or sitting in India working exclusively for overseas clients/

employers

Other Activities

- On the regulatory & professional development front,
- To strengthen further the actuarial services governance, we have strengthened existing APS in Pension and employee benefit valuation area and introduced from this month a comprehensive standard “APS 27” in place of multiple standard.

- Introduced new standard - ACTUARIAL PRACTICE STANDARD 33 - AAs working in General and Health Insurance
- Revised the CoP Guidelines - effective from new as well as renewal of CoP effective from next FY
- Seminars and Capacity Building Programs - 16 programs during last one year attended by over 1500 delegates excluding GCA event.
- 9 Skill development programs for our students - 9 programs (product pricing - Trade/ Economic Capital based; Reserving, R Language and its application
- IAI Office - new building learning and skill developments for our students and young qualifiers remain key priority for the Institute - Thanks all great volunteers for supporting the above activities.



Actuaries as a Career Option and its Future Prospectus



Introduction

The roots of Actuarial Science are sprawling to year 1613 when a book on compound interest was published by Richard Witt, hence can be considered as one of the oldest profession in the world; however the awareness about Actuarial Science or Actuarial profession continue to be limited, most of the time within the contours of high level financial professionals. This limited awareness is not limited to India but across globe.

The importance of actuarial science can be judged by the fact that there are number of qualified actuaries and actuarial students pursuing Actuarial Science are also from other professions like CA, MBAs from IIMs, Statisticians from ISIs, Intellectuals from IITs and also from many prestigious engineering colleges and universities. The salaries match to any best in the industry.

The career graph of Actuaries has been fairly long and steep upward moving in nature; the dedication, sacrifice and hard work to be invested for an average of 6 to 7 years

of intense preparation to become a qualified actuary. Any place where risk and uncertainty exists, irrespective of its financial or other nature, actuaries have a big role to play. However, due to clustering of financial risk in the business of Life Insurance, General Insurance, Health Insurance, Reinsurers, Pensions and financial investments, actuaries are more preferred to be employed in Insurance and credit risk and Wealth management companies. Other areas include banking, stock markets, financial product brokers and valuation of employee benefits. The data science is the new area where actuaries and actuarial students has natural inclination to excel. .

During nationalisation of insurance, LIC of India was the major employer of actuarial personnel and the prominence and recognition of actuaries were apparent when most of its Chairpersons were Actuaries. There was a sharp demand and supply gap existed for actuarial personnel once insurance sector was opened up for the private players in the year 2000. The market offered

handsome packages to the good quality actuarial professionals and the trend continues.

Actuarial Professionals at national and international level have unparalleled advantage in all the work areas of an Insurance Company. The following are the primary but not limited to; Risk Management; Product design and Pricing; Managing Policyholders reasonable expectations relating to benefits/ bonus distribution, Policy Illustration, Managing Investments/ Asset Liability Management, Actuarial Models development, Predictive/ Stochastic modelling, Information Technology, New Initiatives, Compliance, Advice to other departments e.g Policy servicing/ HR (efficiency/employee benefit)/ IT, Valuation of Liabilities; Solvency Maintenance, mergers and acquisition, analysing the business parameters/experience e.g persistency, claims, expense management, Shareholders' and regulatory reporting, Insurance Education and Training Reinsurance treaty maintenance, Underwriting, ETC

Actuaries and Nation Building

The Actuaries' role was felt by the country when Actuaries touched the lives of Government, Public and Private sectors' employees and their family members by designing and setting up and managing the Gratuity schemes under payment of gratuity act 1972 and superannuation schemes. The Actuaries are helping in managing the Government of India (GoI) initiatives in providing the insurance coverage to masses under Pradhan Mantri Suraksha Bima Yojana, Pradhan Mantri Jan Dhan Yojana and Aam Admi Bima Yojana for BPL families, Universal

health insurance schemes for APL families, Jan Arogya policy, Janata Personal Accident schemes, the students' safety, Ashraya Bima yojana, Rural and Agriculture Insurance, Swavalamban, etc.

Actuaries helped by designing and managing the plans for small and large scale businessmen to carry on their businesses. The Bankers' indemnity policy helps control the risks of looting and fraud. LPG has reached to door steps of poor. LPG dealers ensure the regular supply and so their safety net is of utmost importance. Multi- Peril policy for LPG dealers is in place. Meritorious sports winners at Olympics and Asian Games and Artists schemes provide pension and insurance coverage to its members. SEWA is providing insurance and health insurance with help of insurers and actuaries to their members. Similarly the social schemes are in place for beedi workers, carpenters, brick kiln workers, fishermen, cobblers, handicraft artisans, hamals, rickshaw pullers, bidi patta collectors, handloom and khadi weavers, leather and tannery workers, lady tailors, physically handicapped self - employed persons, papad workers, rickshaw pullers and auto drivers, primary milk producers, salt growers, safari karmcharies, tendu leaf collectors, seri culture (silk farming), forest workers, power loom workers, toddy tapers, hilly area women etc.

Insurance sector manages these schemes and Actuaries role is pricing the product, to ascertain the funds needed, analyse the experience, keep reserves, monitoring experience of scheme/products, maintaining solvency and assessing sustainability in longer run and ascertain when Govt support needed.

Future Prospects for the Actuarial personnel

The development in artificial intelligence, genetic engineering, super computers, power of analyzing huge data and information spread on social media, robotics etc, have raised questions on existence of

professions say- medicine, engineering and space science. Actuarial Science is no exception. However, the fact remains that the development in science has helped Actuaries to get better information to do their work.

Even today in traditional actuarial areas there are some jobs done in limited way. In Life Insurance, the Group Insurance is an area where schemes membership ranging to 10 K and above, there is no concrete information on attrition rates. There are number of other studies undertaken in Life Insurance; similar studies need to be undertaken in General Insurance and Health Insurance areas. The Appointed Actuary (AA) system is well established in Life Insurance business and at the same length and breadth the AA system need to be established in Health and General Insurance Industry.

The Postal Life Insurance, Agriculture Insurance Company, ESI, ECGC and IMGC type organisations, actuarial departments are yet to be strengthened in order to bring in professional quality and standards for better corporate governance.

The need of expertise of actuarial professionals has also been felt in organizations which deal in long term finances. Actuaries can be useful in assessing the risks and quantifying those risks. In Banks, for example in managing credit risks, asset liability management and also analysis of the non-performing assets in line of persistency analysis in insurance companies will change the perception of banking if actuaries are involved. There are many such scenarios in the market where actuaries have a big role. The market may utilise Actuaries and other actuarial professional services for their financial management. The insurance sector shall see the risk based capital regime and there would be need of more actuarial personnel in traditional insurance and pension areas. Government of India also utilise services of actuaries

in planning and annual budget. Hence no dearth of employment opportunities for actuaries.

Actuarial Education

Currently the ACET (Actuarial Common Entrance Test) is the entry gate to get eligibility to write actuarial examination in India. A student who is good in English, Mathematics and Statistics with +2 level can clear the ACET, though the entrance examination is not limited to only science stream students. Students study financial mathematics, finance and its reporting, probability and mathematical statistics, statistical methods, create models- deterministic and stochastic, their documentation analysis and reporting, life, health and other contingencies depending on survival or happening of some event, Business Economics including but not limited to developing the behaviour of interest rates, financial economics and general business. All these important aspect of risk management and modelling are included in the first 9 examinations called Core Technical (CT). Under Core Applications (CA) level, two practical examinations of intense nature tests the modelling and communication skills of the student along with an extensive paper on Actuarial Risk Management. At Specialist Technical (ST) and Specialist Applications (SA) levels the principles introduced at CT and CA level are applied at high levels. The ST and SA level examinations offer choice to a student as to what areas he/she can choose for the career, viz., life insurance, general insurance, pensions and other employee benefits, investment and Risks. Students are trained in general business management though the actual experience they gain once in the real world. The Institute of Actuaries of India (IAI) is the only Institute established under Actuaries Act 2006 which regulates the Actuarial Profession in India. The readers may visit IAI web-site www.actuariesindia.org.

19th Global Conference of Actuaries

Press Coverage published in print and online media as on date 1st February 2018

PRINT COVERAGE

Publication: Financial Express

Date: 31 January 2018

Headline: IRDAI for more players in general insurance, to give new licenses

Page No.: 11

Irdai for more players in general insurance, to give new licences

FE BUREAU
Mumbai, January 30

EVEN AS LIFE as well as non-life insurance industry have registered positive growth in the last few years, a lot needs to be done, especially in the general insurance space, insurance regulator Irdai said on Tuesday.

In order to further boost the insurance sector, the Insurance Regulatory and Development Authority of India (Irdai) is set to give new licences to various players in non-life, health and re-insurance.

"Today compared to many other countries, our penetration as well as growth is good. But a lot needs to be covered, especially in the general insurance sphere. The penetration can be much higher than the current level," Irdai chairman TS Vijayan said at the 19th Annual Global Conference of Actuaries on Tuesday.

Vijayan also added that many people came under under Pradhan Mantri Fasal Bima Yojana (PMFBY) and Pradhan Mantri Jeevan Jyoti Yojana (PMJJY) and this itself shows that there is demand for insurance and right products like this should contribute to the growth of the sector.

This year, only life insurance has seen ₹35 lakh crore asset and ₹6 lakh crore premium has been collected. Considering there is less than 3% penetration in India and



almost 7% globally, it indicates a huge potential for insurance in the coming years. According to the data from Irdai, first year premium of life insurance companies as on December stood at ₹1.38 lakh crore, as compared to ₹1.16 lakh crore upto December 2016.

A senior official of the Life Insurance Corporation of India (LIC), who also attended the event, added that the country's largest insurer has invested almost ₹60,000 crore in the government's disinvestment programme so far this fiscal.

"We have invested almost ₹3 lakh crore in equity and debt upto the end of third quarter, out of which ₹2 lakh crore is in various government securities and ₹40,000 crore in equity market," said a senior person on condition of anonymity.

In the last financial year, LIC had invested over ₹47,000 crore in equity markets. In the rising markets, LIC has almost booked profits of ₹20,000 crore in equity markets till December end. In the last financial year, the insurer booked profits of ₹19,000 crore in equity markets.

Publication: Asian Insurance Post

Date: 30 January 2018

Headline: Life insurance industry premium inflows at 6 Lakh crore, assets touch ₹ 35 Lakh cr in 2017: IRDAI Chief

Link: <http://www.asiainsurancepost.com/life-news/life-insurance-industry-premium-inflow-exceeds-6-lakh-crore-assets-touch-rs-35-lakh-cr-2017irdai-chairman>

Life insurance industry premium inflows at ₹ 6 Lakh crore, assets touch ₹ 35 Lakh cr in 2017 : IRDAI Chief

Vijayan who is retiring in February 2018 considers improving insurance penetration as an unfinished agenda in his tenure. Considering there is less than 3 per cent penetration in India and almost 7 per cent globally, it indicates a huge potential for Insurance in the coming years. We have seen insurance penetration go up, especially with schemes like Fasal Bima Yojana, Jeevan Jyoti Bima Yojana and Suraksha Bima Yojana. But it is still very low, especially in the general insurance sector and still has a lot of area to cover,”

Jan 30, 2018 Indian News >> Life-News Source: AIP News Bureau



(L to R) K.S. Gopalakrishnan, CEO RGA India, T S Vijayan, Chairman, IRDAI at the 19th Annual Global Conference of Actuaries on Tuesday in Mumbai.

Mumbai:

TS Vijayan, chairman, IRDAI has said the Indian life insurance industry has mobilised ₹ 6 lakh crore premium and its assets have touched ₹ 35 lakh crore in 2017.

The Indian life insurance industry recorded a premium income of ₹ 418476.62 crore during 2016-17 as against ₹ 366943.23 crore in the previous financial year, registering a growth of 14.04 percent (11.84 percent growth in previous year).

Vijayan who is retiring in February 2018 considers improving insurance penetration as an unfinished agenda in his tenure. Speaking to reporters on the sidelines of the two-day Annual Global Conference of Actuaries (GCA) on Tuesday in Mumbai, Vijayan said that while penetration is improving, there is a lot of room for improvement.

“Considering there is less than 3 per cent penetration in India and almost 7 per cent globally, it indicates a huge potential for Insurance in the coming years. We have seen insurance penetration go up, especially with schemes like Fasal Bima Yojana, Jeevan Jyoti Bima Yojana and Suraksha Bima Yojana. But it is still very low, especially in the general insurance sector and still has a lot of area to cover,” he said.

Talking about the other upcoming challenges for the industry, Vijayan pointed out that it would be the movement of the insurance sector into the new International Financial Reporting Standard (IFRS) standards. Apart from this, he said that technology could bring about sweeping changes to the industry and that they should be equipped to deal with it.

“Some discussions were going on consolidation, but no such proposal has been taken as yet. Few licenses are pending with us in non-life, health and reinsurance. But I can't tell you the Number,” he said.

Speaking on the conference, GCA Organizing Group Chairperson, Kailash Mittal said, “The Indian insurance market is slowly reaching an excellent balance between open market competition and regulatory control. This move has helped equip the actuarial sector in India to implement practical approach to systems like product design and pricing, sensible policyholder protection rules, minimum training and licensing requirement for agents, maximum commission levels, valuation regulations and minimum solvency margins etc.”

Among the key points discussed at the two-day conference are: Digital transformation of Insurance Experience, Strategy and analytics in Insurance.

FAREWELL



Nirmala Mudliyar had been a part of IAI family for more than Five years. She had been working as Sr. Executive- Examination. During her tenure in IAI, she was found very sincere, hardworking and cooperative with each one. We wish her great success and happiness for her future ahead.

Publication: [financialexpress.com](http://www.financialexpress.com)

Date: 31 January 2018

Headline: IRDA for more players in general insurance, to give new licences

Link: <http://www.financialexpress.com/market/irdai-for-more-players-in-general-insurance-to-give-new-licences/1037098/lite/>

Irdai for more players in general insurance, to give new licences

Even as life as well as non-life insurance industry have registered positive growth in the last few years, a lot needs to be done, especially in the general insurance space, insurance regulator Irdai said on Tuesday.

By: FE Bureau

January 31, 2018 4:20 AM



In order to further boost the insurance sector, the Insurance Regulatory and Development Authority of India (Irdai) is set to give new licences to various players in non-life, health and re-insurance.

Even as life as well as non-life insurance industry have registered positive growth in the last few years, a lot needs to be done, especially in the general insurance space, insurance regulator Irdai said on Tuesday. In order to further boost the insurance sector, the Insurance Regulatory and Development Authority of India (Irdai) is set to give new licences to various players in non-life, health and re-insurance. "Today compared to many other countries, our penetration as well as growth is good. But a lot needs to be covered, especially in the general insurance sphere. The penetration can be much higher than the current level," Irdai chairman TS Vijayan said at the 19th Annual Global Conference of Actuaries on Tuesday. Vijayan also added that many people came under Pradhan Mantri Fasal Bima Yojana (PMFBY) and Pradhan Mantri Jeevan Jyoti Yojana (PMJJY) and this itself shows that there is demand for insurance and right products like this should contribute to the growth of the sector.

This year, only life insurance has seen ₹ 35 lakh crore asset and ₹ 6 lakh crore premium

Publication: Moneycontrol.com

Date: 30 January 2018

Headline: Tech changes biggest challenge for insurance industry, says, Irdai chairman TS Vijayan

Link: <http://www.moneycontrol.com/news/business/tech-changes-biggest-challenge-for-insurance-industry-says-irdai-chairman-ts-vijayan-2495329.htm>

Jan 30, 2018 10:05 PM IST | Source: PTI

Tech changes biggest challenge for insurance industry, says, Irdai chairman TS Vijayan

Faster changes taking place in the world of technology and new capital standards are going to be major challenges for the insurance industry going forward, Irdai chairman TS Vijayan today here said.



Faster changes taking place in the world of technology and new capital standards are going to be major challenges for the insurance industry going forward, Irdai chairman TS Vijayan today here said.

"The way the capital is going to run is going to affect the industry. The challenge for the insurance profession will be the changes in the technological environment.

"Adoption of new capital standards and adoption of new technology are going to be major challenges for the insurance industry," Vijayan told the two-day 19th annual global actuaries conference here.

India Union Budget 2018-19 Live: News, updates and highlights from FM Arun Jaitley's Budget 2018 speech, announcements

The insurance regulatory and development authority chairman further said, the main duty of an actuary is to maintain solvency for the insurer at all times while staying within the domestic and international best practices.

"Analysis of the current data leading to projections for future makes this conference a platform truly looking through the crystal ball. This year, only life insurance has seen ₹ 35 trillion asset building and ₹ 6 trillion premium has been collected.

"That there is only under 3 per cent insurance penetration in the country against the global average of almost 7 per cent, indicates the huge growth potential for the sector in the coming years in the country," the chairman added.

Publication: Moneycontrol.com

Date: 30 January 2018

Headline: Improving penetration remains unfinished agenda: IRDAI chairman T S Vijayan

Link: <http://www.moneycontrol.com/news/business/economy/improving-penetration-remains-unfinished-agenda-irdai-chairman-t-s-vijayan-2495155.html>

Jan 30, 2018 08:00 PM IST | Source: Moneycontrol.com

Improving penetration remains unfinished agenda: IRDAI chairman T S Vijayan

Insurance penetration in India rose to 3.49 percent from 3.40 percent in Fy17

Moneycontrol News@moneycontrolcom

Insurance Regulatory and Development Authority of India (IRDAI) chairman T S Vijayan who is retiring in February 2018 considers improving insurance penetration as an unfinished agenda in his tenure. Speaking to reporters on the sidelines of the Annual Global Conference of Actuaries in Mumbai, Vijayan said that while penetration is improving, there is a lot of room for improvement.

“We have seen insurance penetration go up, especially with schemes like Fasal Bima Yojana, Jeevan Jyoti Bima Yojana and Suraksha Bima Yojana. But it is still very low, especially in the general insurance sector and still has a lot of area to cover,” he said.



Insurance penetration, which is measured as a percentage of premiums to gross domestic product (GDP), rose to 3.49 percent from 3.40 percent in FY17, according to a report by global reinsurer Swiss Re. Life insurance penetration stood at 2.72 percent while general insurance penetration stood at 0.77 percent.

India Union Budget 2018-19 Live: News, updates and highlights from FM Arun Jaitley's Budget 2018 speech, announcements

Insurance density or the premium per capita stood at USD 59.7 in India in FY17. The average for Asia stood at USD 343.1 while the global average was USD 638.3.

Publication: Indilens.com

Date: 30 January 2018

Headline: Improving penetration remains unfinished agenda: IRDAI chairman T S Vijayan

Link: <https://indilens.com/472062-improving-penetration-remains-unfinished-agenda-irdai-chairman-t-s-vijayan/>

Improving penetration remains unfinished agenda: IRDAI chairman T S Vijayan

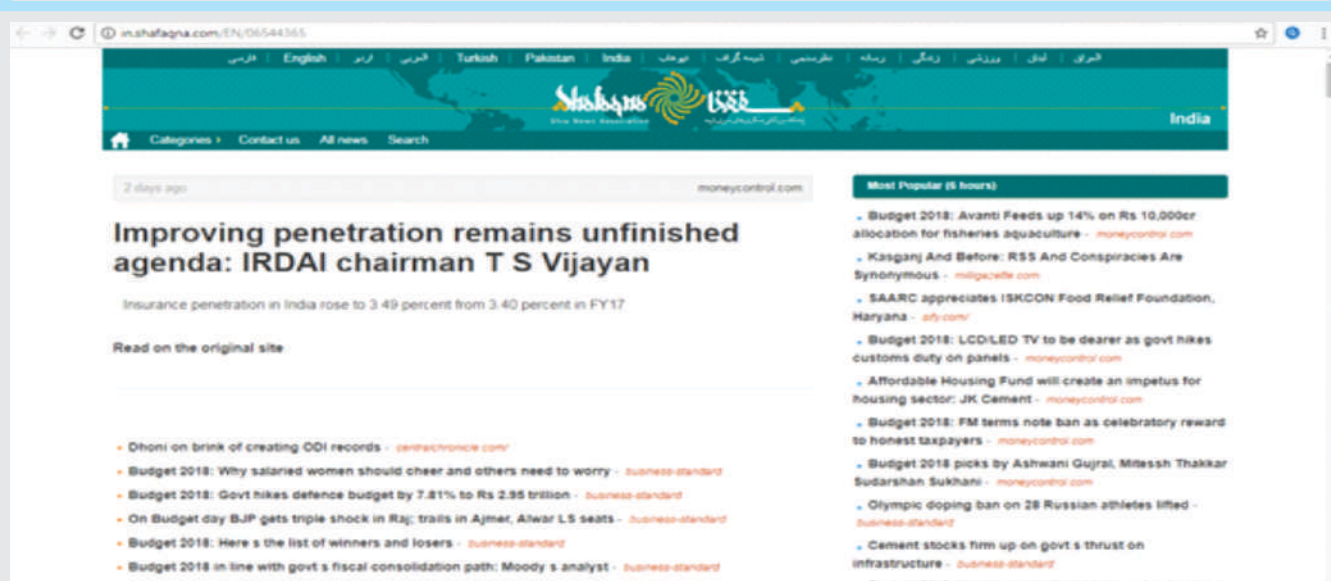


Publication: Safaqa.com

Date: 30 January 2018

Headline: Improving penetration remains unfinished agenda: IRDAI chairman T S Vijayan

Link: <https://www.google.co.in/url?sa=t&source=web&rct=j&url=http://in.shafaqna.com/EN/06544365&ved=2ahUKEwj2qMf9m4HZAhVBPY8KHePjAdEQFjAFegQIAxAB&usg=AOvVaw3hnGMLdhwfQ9BTQokoAidz>



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Outlook

THE NEWS SCROLL

30 JANUARY 2018 LAST Updated at 8:39 PM

Tech changes biggest challenge for insurance industry: Vijayan



Mumbai, Jan 30 Faster changes taking place in the world of technology and new capital standards are going to be major challenges for the insurance industry going forward, Irdai chairman TS Vijayan today here said.

"The way the capital is going to run is going to affect the industry. The challenge for the insurance profession will be the changes in the technological environment.

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The insurance regulatory and development authority chairman further said, the main duty of an actuary is to maintain solvency for the insurer at all times while staying within the domestic and international best practices.

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"That there is only under 3 per cent insurance penetration in the country against the global average of almost 7 per cent, indicates the huge growth potential for the sector in the coming years in the country," the chairman added.

Photo features of 19th Global Conference of Actuaries



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Tech changes biggest challenge for insurance industry: Vijayan

PTI January 30, 2018/ UPDATED 20:45 IST/

Mumbai, Jan 30 (PTI) Faster changes taking place in the world of technology and new capital standards are going to be major challenges for the insurance industry going forward, Irdai chairman TS Vijayan today here said.

"The way the capital is going to run is going to affect the industry. The challenge for the insurance profession will be the changes in the technological environment.

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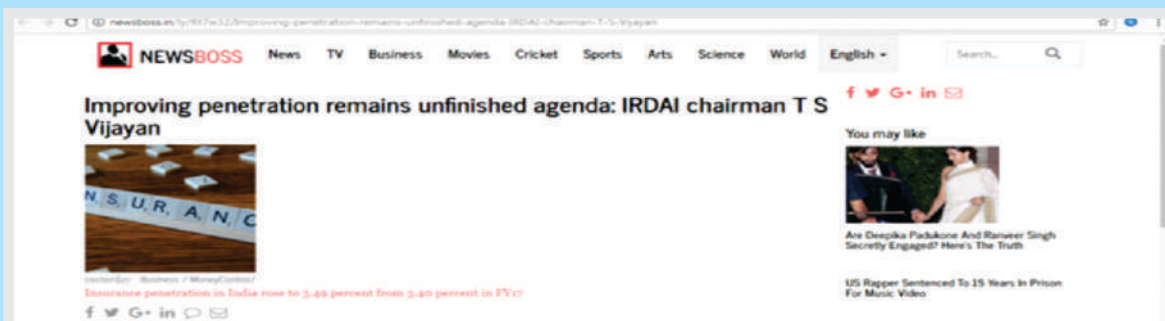
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Date: 30 January 2018

Headline: Improving penetration remains unfinished agenda: IRDAI chairman T S Vijayan

Link: <https://www.google.co.in/url?sa=t&source=web&rct=j&url=http://newsboss.in/ly/Rt7w32/Improving-penetration-remains-unfinished-agenda-IRDAI-chairman-T-S-Vijayan&ved=2ahUKEwj2qMf9m4HZAhVBPY8KHePjAdEQFjAGegQIBRAB&usg=AOvVaw1CIVugoJxUOrJGhdm0w1-L>



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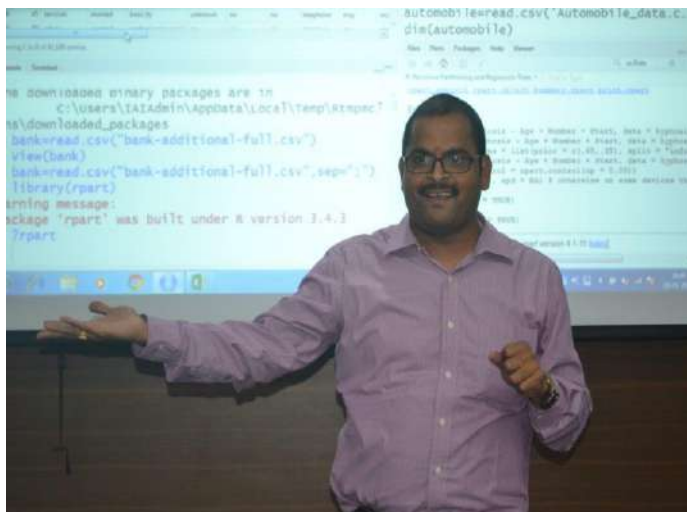


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Letter to the Editor

We invite readers to respond briefly to our articles and to suggest new features with letters to the editor. Kindly mail your responses on library@actuariesindia.org with your name & contact details. Appropriate responses will be published in Actuary India magazine with the approval of competent authority.

Interaction with Chairman of Life Insurance Corporation of India

Introduction-Journey to the most coveted position in LIC

Shri Vijay Kumar Sharma took charge as Chairman of Life Insurance Corporation of India on 16th December, 2016. Prior to his taking over as Chairman, he was Chairman (In charge) from 16th September, 2016 and Managing Director from 1st November, 2013. From December 2010 to November 2013, he was Managing Director & CEO of LIC Housing Finance Ltd., a premier housing finance company in the country which is listed in NSE, BSE & Luxembourg Stock Exchange. Shri Sharma has held various challenging assignments pan India and in all operational streams including in-charge positions at different levels. Working across the length and breadth of the country has added immensely to his experience and honed his understanding of demographics of the country, socio-economic needs of different regions and multi-cultural challenges in implementation of Corporate objectives.

1. Your strengths and weaknesses?

By destiny, it is an excellent match of Organisation's value and culture, with my personal values and beliefs. I consider it as the biggest strength. My trust on people and their intuitive response towards me has also been one of the major source of my strength. My passion to serve people at large has helped me to fit in the Organisation and grow along with it.

I am candid enough to accept that I am also like any ordinary person who has many weaknesses. With respect to the Organisation in particular, I am very impatient in the matter of delivering all results and timeline. Many a times, I feel being stickler to



quality and perfection, which becomes a weakness. But I have to live with it.

2. What different activities than life insurance you are interested in?

All along my life - when I was a student, I used to dream about so many things including planet earth green cover (conservationist), planting as many trees as I can (forestry) and many more things. After joining LIC, I have been eating, breathing and living life insurance 24*7. However, I have kept a passion of gardening, listening music, yoga and prayers which is continuing with me till date.

3. What was the biggest challenge you faced in life?

When I look back to my professional journey all along, I have been branded as the "crisis manager" pan India across all the jobs. I am thankful to people who have been with me and who have made me

successful in all the situations. I would like to put the three turning around points in my life which gave me the strength to serve people - (i) challenge to lead Southern Zone of Life Insurance Corporation of India covering Tamilnadu, Kerala and Pondicherry as Zonal Manager where neither I have worked nor I had the strength of language or knowledge of people and the Zone was under morass of continuous de-growth of six quarters and all industrial unrest associated with it. The turn around came in two years and it became No. 1 zone in the country by November 2010; (ii) taking over of LIC Housing Finance Ltd. at 24 hours notice in the most challenging circumstances of negative media glare and intense scrutiny by Regulator & CBI, and within three years time, the Company came out like a pure Gold and won the best Housing Finance Company Award; (iii) being given the responsibility of leading Life Insurance Corporation of India in difficult circumstances with a challenge to put it back on growth

path and re-establish its market leadership.

I cannot claim how I have done, but I am happy that we have been fairly successful in getting love and appreciation all round.

Profession

4. How is your typical day in the office?

Equally distributed among people, files and strategy lab.

5. How do you value actuaries in your organization?

As an Organisation, we are proud that it could be built on such a sound footing due to the contribution of our Actuaries in the past. LIC has been blessed as it has many Actuaries not only in actuarial position, but other areas of operations as well including the highest position. Many of them have left the Organisation for quite sometime. Therefore, a culture is built wherein the appreciation of specialized knowledge, talent development and providing conducive environment for their growth and development. We have conscious policy of exposing out actuarially qualified people to different areas of operations including marketing and investment so that they can be groomed to the leadership position for the industry.

6. What impact do actuaries have on consumers and society? What should they do to connect with the society?

Actuaries are very vital component for long term financial stability in the global and national economy. Their ability to visualize and guide for long term future risk management is critical for insurance companies in particular and the financial system in general. They are also able to create hope for the future and aspirations for risk averse segment of the society.

7. How do you see actuaries taking Business roles in Life insurance companies? What values can they add to the business in the area of Sales and Marketing?

Actuaries with their keen analytical thinking and statistical skills may foresee business opportunities in the markets resulting from changes in economic landscape, geopolitical shifts, new technologies, shortened product life cycles, cross-cultural communications and changing consumer behaviour. This will help us align our corporate strategy accordingly for long-term success in the global marketplace.

8. How do you see employment opportunities for our members, including student members in all functional areas of LIC?

The opportunity is huge. There will always be need for actuarial professionals in every segment of Insurance business. Actuaries are valued for their expertise in identifying behavior and attitude in matters related to money management, planning for future and choosing of products. And using this expertise in designing the products for any company is definitely the need of the hour.

This will surely be a deciding factor for life insurance companies to engage people in sales and marketing roles and leading from the front to generate business.

LIC is regularly and actively absorbing people with actuarial skills at different levels. It will continue to do so more in view of the turn around of insurance sector and the future growth of business in medium and long term.

Insurance Industry in India

What do you feel as the biggest challenge of life insurers now?

In the mix up of entire financial

services sector wherein every segment is doing everything, keeping the differentiation as a segment - is one of the biggest challenge to life insurance now. Equally challenging for life insurance industry is to stay relevant and significant to the society particularly in the mind space of younger generation. For this, Insurers need to evolve and combine a recalibrated distribution system, adapt technology that will reach out to people and improve the qualitative aspects of products and services. Other challenges include competition with mutual funds and declining and aging agency force.

1. What trends do you see for this industry in the next 3 to 5 years?

I have been talking on public platforms that coming decade is going to be very positive for insurance business - be it Life, General or Health. It will be led by products, technology and distribution capability of the companies.

2. What market share do you see the private sector players having in ten years' time?

In a country where hardly 10% of the population is covered and less than 3% are covered adequately, it is meaningless to talk about market share. The potential of insurance market of India is so huge that there is a space for many more companies to operate and succeed. The insurable population is expected to be 750 million by 2020 and life insurance coverage is barely defined as 30-35% of insurable population. The market is going to expand substantially due to growing awareness, Government initiatives, higher literacy and competitive market play. We, in LIC are preparing ourselves to keep the leadership sustained.

Having said that, there is a very

bright future for the new insurance companies who are serious players.

3. What do you believe are the inefficiencies in the insurance industry? How do you think such inefficiencies can be overcome?

We do have a strong foundation as far as insurance industry is concerned. However, one has to keep in mind the changing dynamics of the customer base, their needs and a new approach to tap them.

Technology has always been an important link in the evolution of the industry; we have to be sensitive to the peculiar nature of life insurance in particular. Human touch in life insurance industry cannot be eliminated but it has to be highly skilled and customer oriented now. I would say it's an ongoing process and disruptions do lead to innovations.

4. What do you think are the strengths of Indian Insurance Industry?

Deeper and Mature insurance sector will stimulate economic growth and facilitate savings which will be made available for investments in various sectors. So the role of the insurance industry is multi pronged. It reaches out to the individual financial security as well as social and economic growth of the country.

I would say that we have a very strong foundation as far as insurance is concerned but we have to expand our reach beyond the realms of pure profitability. If the last person has access to insurance and is secured, then we have a secure society and a secure country financially to a great extent. And this responsibility has to be shared among all the players.

5. How do you plan to meet the future challenges and opportunities in the Insurance industry?

Our records of six decades show that we have time tested blueprints for achieving excellence in performance. But having said that, we are aware that in today's fast changing environment, what worked in the past may not be sustainable in the future. What we need are ground breaking innovations to lead us on the path to excellence, a need for disruptive innovations as a means to justify the end of achieving excellence in performance.

If we just move with times, hold on to our customers and add the new ones, build a sturdy dedicated administrative and marketing personnel team and be ahead of technology curve, there is no stopping us, say for another 60 years.

Need a better vision to follow?



We are expanding our actuarial space and looking forward to potential actuaries joining our Life Insurance team in Pune.

Qualification

- Graduate in Mathematics/Science/Statistics/Engineering
- Should have preferably completed 6 CT series papers including CT1 and CT5. For senior positions, CT series with ST2 will be preferred.

Experience Required

3 to 12 years of actuarial experience for various positions.

Areas of Expertise

Aspiring candidates should have worked on one or more of the following areas:

- Pricing of life insurance products - participating, non-participating, including unit linked
- Reserving for life insurance products, Risk Based Capital, Solvency II
- Reporting functions, ALM, experience studies, modeling, risk management
- Data base management using SAS, R
- Prior knowledge of actuarial software ALPHA and exposure to life insurance actuarial work in the US market would be an advantage

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Advisory Group on Health Care Insurance

Health Insurance in India is growing at a healthy rate of 25% year-on-year. This growth rate is expected to continue for many more years because the penetration of voluntary individual health insurance products is still abysmally low when compared to other developed countries. The number of Standalone Health Insurance Companies is also on the rise and lot of new players have evinced interest in this growing but still under-penetrated segment. As per latest Annual Report of IRDAI there are some 3.2 Crore members who are covered by voluntary individual health cover and these are almost evenly split between individual and family floater sum insured policies. Given India's population this number seems to be miniscule and there is so much potential for this to grow further.

Advisory Group on Health Care Insurance of Institute of Actuaries of India is involved in number of activities to help promote Health Insurance. We have recently organised two-day seminars on Capacity Building and Current Issues in Health Insurance in Gurgaon. Both the seminars were taken very well by the audience and basis the success of the event it was decided to organise one full day workshop dedicated to the pricing of health insurance products. Apart from this there is also

a proposal to organise five-day seminar to impart training to fresh actuarial students covering practical aspects of actuarial domain to help them rise the learning curve fast.

Currently Health Care Advisory Group is also working on two technical papers. Topic of first paper is to propose a detailed methodology to compute Medical Inflation Index. Once Medical Inflation Index is in place it can be used in many areas including but not limited to premium adjustment. Second topic is to cover technical aspects of Health Saving Account (HSA). This is a very successful product globally and given the saving bent of mind of Indian population it can be even more successful in India. This may also help in increasing penetration of health insurance in India.

Another important feature of Health Insurance Industry in India is product innovation. In last few years, Industry has seen many new products

and improvement to existing products by adding innovative features. We make sure that in every seminar few sessions are dedicated to innovation.

Apart from all positives, industry is also facing few challenges, like high cost of distribution, unsustainable loss ratio of group health, high management expenses, etc. As Health Care Advisory Group we have raised such issues at appropriate forum and suggested ways to deal with them in the past and would like to continue doing this in future.

There are lot of disruptive business models emerging around us in all industries using digitisation and we feel that we can take some learning from there to overcome some of our challenges, like, cost of distribution and high management expense. We would like to engage more in this aspect in future.

About the Author

Mr. Vishwanath Mahendra

Chairperson, Advisory Group on Health Care Insurance



CALL for ARTICLES

We invite articles from the members and non members with subject area being issues related to actuarial field, developments in the field and other related topics which are beneficial for the students of the institute.

The font size of the article ought to be 9.5. Also request you to mark one or two sentences that represents gist of the article. We will place it as 'break-out' box as it will improve readability. Also it will be great help if you can suggest some pictures that can be used with the article, just to make it attractive. Articles should be original and not previously published. All the articles published in the magazine are guided by EDITORIAL POLICY of the Institute. The guidelines and cut-off date for submitting the articles are available at http://actuariesindia.org.in/subMenu.aspx?id=106&val=submit_article



Introduction to Machine Learnings for Actuaries

Introduction

When we are born, sensors of our body- eyes, ears, nose, tongue, and nerves—are continuously battered with raw data that our brain translates into sights, sounds, smells, tastes, and textures. Using communication, be it verbal or non-verbal, we are able to share these experiences with others.

We, first observe the events, receive the raw information and data; then we record these in our brain. Our brain processes this raw data and instructs us to take an appropriate action. At the end, we take action and closely watch the implication of our action. This brings us more insight; we start learning more, become smarter. Also we refine and enhance our thinking process before taking appropriate action on similar type of circumstances next time. It is said that 'We learn more when we fail more number of times'.

This is analogy with our Actuarial Control Cycle-Specify the Problem, Develop the Solution and Monitor the Experience in the context of the general economic and commercial environment along with professionalism.

A classic example is when a baby is small, she does not know the dangers of fire. First time, she puts her finger boldly into it, experiences the burning sensation and immediately removes her finger. Moreover, her brain stores this information and trains her that next time she should be careful and not be putting her finger into the fire. That means, baby has learned with experience that fire is dangerous and now she is able to take decision of not putting her finger if she sees any fire.

Today we are able to record, store and process millions of observations

systematically in our database. Thanks to the advanced development of computer technology.

In this article, we are going to understand about Machine Learnings, types of machine learnings and application of machine learnings in insurance and actuarial context.

What is Machine Learning?

Machine Learning is the field of study, where sophisticated computer algorithms are developed for transforming data into intelligent action.

In other words, Machine Learning teaches computers (or machines) to do what comes naturally to the minds of human beings; learn from experience. In other words, machine learnings algorithms use computational methods to “learn” information directly from data without relying solely on a predetermined equation as a model.

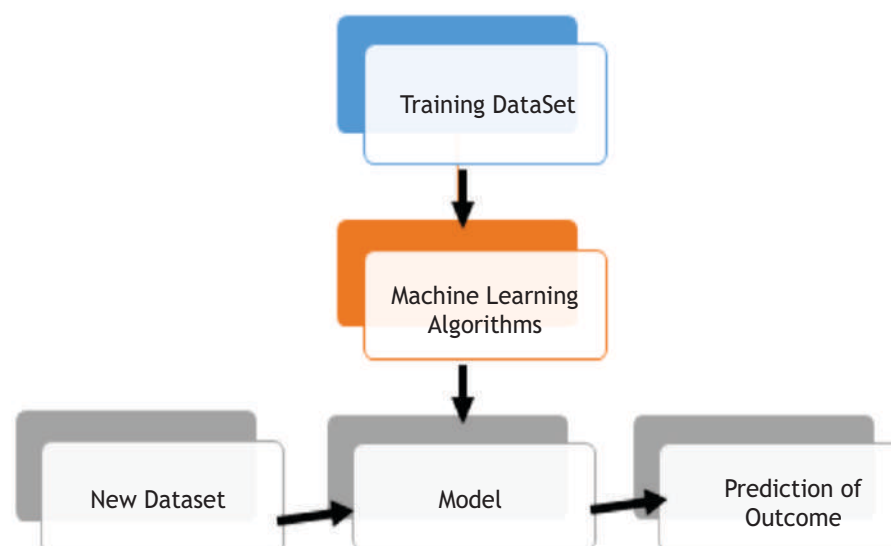
The algorithms adaptively improve their performance as the number of samples available for learning

increases.

Following are broad steps which are followed in Machine Learnings:

- (i) First step is to train the machine based on available data. Now available data can be partitioned as-training dataset and test dataset.
- (ii) Suitable model is adopted based on various features embedded within training dataset.
- (iii) Then adopted model is checked on test data set for comparing predicted outcome from the model with reference to actual outcome available in the test data set.
- (iv) If predicted outcomes are satisfactory (based on various statistical test, we can check whether model is satisfactory or not) for the test dataset, then we can adopt the same model for the new set of data for prediction of outcome from those data.

Process flow of Machine Learning is depicted in the following diagram:



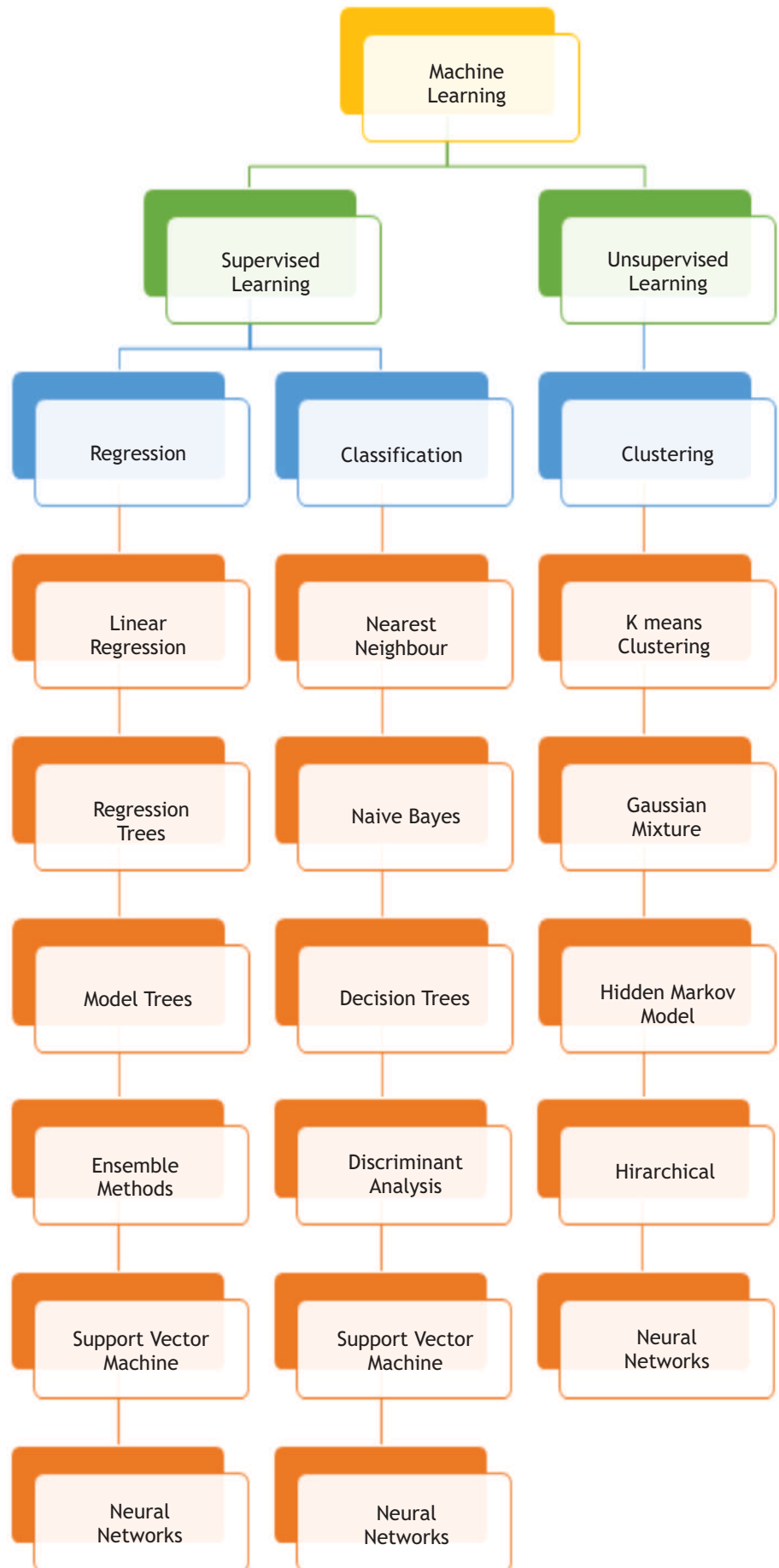
Application of Machine Learning

Machine learning algorithms discover data patterns that generate insight and help to make better decisions and predictions.

They are used to make critical decisions in medical diagnosis, algorithmic trading, energy production, purchasing behaviour of customers, credit scoring, detection of cancer tumour, discovery of drugs, automotive, aerospace, prediction loan default, image processing etc.

In insurance context also, we can see many applications of machine learning such as

1. Predicting the persistency rates of a life insurance policies
2. Prediction of mortality and morbidity rates based on various factors such as policyholders' behaviour in terms of age, gender, eating habits, level of exercise, occupation, income level, social habits etc.
3. Predicting the heart attack cases of insured life in the next one year say for the Health Insurance Companies.
4. Identifying and separating the most important factors in the mortality and morbidity study and taking appropriate underwriting decisions based on emerging experience.
5. Detecting the fraudulent claims and drivers behind the fraud.
6. Estimating the medical treatment cost based on age, gender, BMI, smoking status, geographical location, level & type of food intake, level of exercise etc.
7. Predicting insurance claim for each driving person based on various factors such as make & model of car, distance travelled, daily travel journey time, daily number



of hours drive, road conditions till destination, availability of parking slot, average speed of running car, eating and drinking habits of driving person, stress level of a driving person at office, frequency of night travel, etc. Thanks to installation of telematics device in cars and the data can be captured on real time basis through this device.

Types of Machine Learning Techniques

Machine learning uses broadly two types of techniques: Supervised Learning and Unsupervised Learning.

Supervised Learning

The main objective of supervised machine learning is to build a model that makes predictions based on evidence in the presence of uncertainty. Supervised learning, trains a model on known input & output data and generate reasonable predictions for the response to new set of data using predictive modelling.

Supervised learning uses classification and regression techniques to develop predictive models.

- a. **Classification techniques** predict discrete responses—for example, whether policyholder is Smoker or Non-Smoker, whether policyholder is Healthy or Ill,

whether the motor claim will be submitted or not, acceptance or rejection of insurance proposal at underwriting stage, whether claim is fraudulent or not or whether a tumour is cancerous or benign.

- b. **Regression techniques** predict continuous responses—for example claim severity, estimation of premium income, investment returns etc.

Unsupervised Learning

Unsupervised learning finds hidden patterns or structures present only in the input data using exploratory data analysis. Clustering is the most common unsupervised learning technique.

Conclusion

Many machine learning algorithms are available today and selection of algorithm depends on the size and type of data available with the insurance companies.

Consider using machine learning when you have a huge set of data and the task is to predict various outcomes based on supervised or unsupervised learning by the machine.

We actuaries should embrace the modern data techniques such as Machine Learning to understand the data in more depth and predict the outcomes with more precision based on available data and able to persuade management to take appropriate decisions based on our analysis within the framework of general business and economic environment along with professionalism.

In the next few articles, I will use dummy datasets pertaining to insurance business to predict the various outcomes, which are interesting to actuaries based on some of the above algorithms covered under Machine Learning Techniques.

About the Author

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“Suresh Sindhi is a Fellow member of Institute of Actuaries of India and Institute of Actuaries, UK. Currently, he is a consulting actuary providing actuarial consulting advice to various insurance companies and also involved in consulting in the area of pension & retirement benefit schemes to various corporate clients.”

The Actuary India wishes many more years of healthy life to the fellow members whose Birthday fall in February 2018

**MR A P PEETHAMBARAN
MR A VENKATASUBRAMANIAN
MR CHANDAN K KHASNOBIS
MR HANUMANTHA K RAO
MR M VENKATESAN
MR RAJAGOPALAN V**



Digital disruption in BFSI sector

Banking and financial services are becoming more and more technology driven. This has led to increase in customer expectations about service quality and lesser cycle time for quick and efficient resolution of problems. The entry barriers to the BFSI sector are now a thing of the past thanks to digital disruption. Innovation, technology and infrastructure are becoming the bulwarks of customer experience management.

Companies that disrupted the market digitally

Uber, Airbnb, Alibaba, YouTube, Flipkart. These companies do not own many assets. But they understand customers better. These companies have learnt how to leverage technology effectively. Elements like mobile applications, cloud, API, Artificial Intelligence and block chain can be deployed to satisfy customers.

Fintech companies are striving hard to push the envelope in terms of applying technology effectively. Technical integration has reduced the need for manual intervention and has also reduced the response times.

Technology Trends - Change is the way of life!

As trends keep changing due to a shorter shelf life, when it comes to predicting the future technology trends, care and caution are needed. Gold plating will not do any good. Banking technologies are becoming more personalized and are capable to deliver on-demand service to customers. Technology is helping customers to make informed decisions.

Use of AI and experiential user

interface will lead to relevant messages for customers. The truth is that technology is no longer an enabler. Technology is becoming an integral part of the front-end and this reduces transaction costs.

Customer experience management

Managing a large customer data base is becoming challenging. The question is how much to scale up and when. To manage capacity well, an idea of real time demand is crucial. Capacity is now trailing demand. Customers have enough choices. So earlier business models now need revamping. With more and more of youth opting for home loans, banks have to deal with this demographic shift. In retail banking, efficiency and automation are becoming drivers for breeding customer loyalty and for expanding the customer base. Speed, security and agility are becoming important in investment banking. Even insurance covers will need an innovative approach considering developments like smart homes and smart cars.

Digitalisation and insurance

The insurance operations need digital intervention to give customers a seamless experience. Insurers also have to deal with a humongous customer data base. So the question is - how are insurers going to manage data end-to-end and ensure that customer

satisfaction is never compromised at any stage?

The general insurance sector is distribution led - both when it comes to acquiring customers and settling claims. When the insurance ecosystem becomes digital and paperless, this will lead to fulfillment of end to end solutions for customers - right from the time a policy is purchased till the time of a claim. The challenge in the future is going to be skimming the data to flesh out what is more relevant / current.

India - epicenter of digital transformation

The biggest challenge for the BFSI sector is the war for talent. Up gradation of skills is crucial. Security, innovation, state-of-the-art infrastructure, right people and data management are vital for BFSI sector. Fintech companies are adopting a unique strategy of using technology to drive customer experience. Technology has thus become the differentiator.

To sum up, digital interventions in the BFSI sector are only beginning to scratch the surface. As technology starts getting deployed more and more, customer issues will be brought to the fore. The agility with which these issues are resolved will be the acid test for the sector.

About the Author

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“Mr. Venkatesh is working as - Associate Professor at Presidency Business School, Bangalore.”



Unit Linked Insurance Plans (ULIPs) and Mutual Funds – How different are they?

Anaya has recently started working, and is exploring the various investment options available to park her surplus income. Sanika, her good friend has keen insights into the various investment opportunities available. Anaya decides to give Sanika a call and seek her advice.

Anaya: Hi Sanika!

Sanika: Hi Anu! How are you?

Anaya: I am good! I feel I have found my rhythm at work, somewhat, in these past few weeks! At the very least, I am able to follow most of the conversations and keep track of the various ongoing projects for various clients.

Sanika: Yes, I remember the conversation we had after your first week at work. You were so overwhelmed by all the information being thrown around, and all your self-doubts and you feeling lost and confused! Hahaha!

Anaya: Don't laugh!!! I had felt so lost at that time, and had vented before you. Anyway, how are you? Have you settled in with your new flatmates?

Sanika: Yes, we've all gotten pretty comfortable with each other now. And they all seem to be cool people, which is such a huge relief! We are decorating the house, so my evenings are busy. By the way, you are welcome to drop by anytime you want.

Anaya: That's great! I'll definitely drop by soon with a housewarming present! So Sanika, the reason I called is because I want some investment advice from you. Do you have a couple of minutes to spare?

Sanika: Yes, of course. Tell me, how can I help you?

Anaya: I want to invest some of my income on a regular basis and have been looking at the various available options. Since you are savvy when it comes to finances, I wanted your advice on the same.

Sanika: Okay, so what are your requirements? Have you come across any investment options that meet your requirements?

Anaya: I've decided to invest a small proportion of my salary into a monthly recurring deposit for short term, probably a year or eighteen months. I can use this money for any capital expenditure if need be. Apart from this, I want to make some long term investments that give me good returns. I am not expecting significant financial responsibilities in the near future. Nevertheless I want to invest regularly and build up a good corpus. Equities seem to be a viable choice considering all my requirements, but I have not yet built up the expertise required to make informed investments in equity, nor do I think I can dedicate a lot of time to it on a regular basis. Plus equity involves significant risks, so I am not sure.

Sanika: Investing in equity does involve comparatively higher volatility. The risk of loss in equity investments is higher for short term investments because of the cyclical nature of the markets, which necessitates close tracking of the markets and trading actively. One has the option of investing in relatively riskier or less risky equities, depending on one's preference. Also, do you want to consider diversifying your investment to some extent rather than investing completely in equity? And since you do not have the time or the expertise to invest into equities directly, have you considered investing through Mutual Funds or ULIPs.

Anaya: Well, I have seen a lot of advertisements about Mutual Funds recently, but I don't know much about it. At the first glance, it seems these options give comparatively lower returns, given the charges levied by the fund houses (financial institutions). And aren't Mutual Funds (MFs) and ULIPs essentially the same, the only difference being ULIPs also provide life cover?

Sanika: Ummm, although the underlying principle and functioning of both MFs and ULIPs is quite similar, these two avenues have different features and benefits, including the life cover provided under ULIPs. The life cover is a major feature under ULIPs since it provides a guaranteed benefit on death, thus protecting the life cover from adverse market fluctuations. Death benefit is either a fixed sum assured, higher of sum assured and fund value or the sum of sum assured and fund value, depending on the product structure. Mutual funds, on the other hand, do not offer any such guarantee. The fund itself gets transferred to the nominee in case of death of the investor.

Another consideration is that ULIPs allow the investor to opt for certain riders like accidental death benefit rider, further increasing the financial security in case of any unfortunate incidents.

So Anu, before anything else, do you know how these options essentially work?

Anaya: Yes, I think so. The investor makes regular contributions, from which certain charges and expenses are deducted by the fund house. The balance contribution is invested in a fund of the investor's choosing on her behalf.

Sanika: You are right. Both MFs and ULIPS are essentially structured in this manner. And the advantage of investing in these sort of investment vehicles is that one gets to hold a diversified portfolio. Since the portfolio is built out of the pooled funds of a significant number of people, the corpus is pretty large, enabling setting up of a well-diversified portfolio. Also, the transaction costs of setting up and management of such a diversified portfolio gets spread out over the entire group of investors, resulting in lower charges per investor.

Anaya: Oh! This means if I choose to invest in equities directly, it will take me quite some time to build up a well-diversified portfolio, given I don't have a huge initial investment. And the transaction charges involved will be significant! That is something I hadn't given much thought to.

Sanika: Exactly! Additionally, the investments under ULIPs and MFs are made and managed by fund managers having professional expertise and a number of years' experience. Their full time is dedicated to managing your investment. As for the charges being deducted, they are strictly regulated now. There had been major cases of mis-selling, significant charges and mismanagement in the past, which resulted in many people losing much of their investments during the 2007-08 stock market crash. Post this incident, the industry regulators - SEBI, that is the Securities and Exchange Board of India for Mutual Funds and IRDAI, that is the Insurance Regulatory and Development Authority of India for ULIPs, have strengthened the regulations. Charges are capped to ensure investor returns are maximized and the fund houses do not make undue profits at the expense of investors' returns. So coming back to your question, investing through these vehicles will not necessarily give you lower returns on account of the charges. As a matter of fact, the advantage of full-time professional expertise to manage your funds would outweigh

the costs involved.

Before we get into charges, are you aware of the concept of Net Asset Value (NAV)? NAV is an integral part of both ULIPs and MFs.

Anaya: I don't know about it in great detail, but NAV seems to be the price of purchasing one unit of the fund. As in, if the NAV of a fund is ₹100, and one wants to invest ₹1000, she will be able to purchase 10 units of the fund.

Sanika: Yes, the NAV represents the value of the net holding of the fund net of admissible expenses like management, operating, marketing expenses etc. The NAV divided by the total number of units held by investors, gives the NAV per unit, which is the price at which investors buy units of the fund, or sell it back to the fund house. And NAV is determined on a daily basis by the fund house.

Anaya: Okay....

Sanika, could you explain what charges are deducted under each of these options?

Sanika: The charges under ULIPs are split into a number of categories. A Premium Allocation Charge is levied in lieu of business acquisition costs like underwriting and medical expenses, commissions paid etc. This is expressed in terms of a percentage of premium. Apart from this, a monthly policy administration charge is incurred. A mortality deduction is effected monthly in lieu of the insurance cover offered. A fund management charge (FMC) is expressed as a percentage of the fund and is capped at 1.35% p.a. A charge may also be levied on surrender or discontinuance, we'll get to this later. Surrender penalties are capped as well.

Anaya: That's quite a lot of charges, wouldn't you say?!

Sanika: Although it does seem like a lot of charges are being deducted, the total permissible charges have been capped by IRDA. The permitted difference between gross and net

yields at maturity cannot exceed 3% if the policy term is less than 10 years, whereas the difference cannot exceed 2.25% if the policy term is greater than 10 years. These limits are inclusive of FMC, but exclude mortality charges.

Anaya: What about Mutual Funds?

Sanika: Mutual fund charges include an entry load, an annual fund management charge and an exit load, if applicable. The entry load is charged in lieu of marketing and distribution expenses. Most MFs charge an exit load on discontinuance. The maximum expense charge permissible under an equity fund is 2.5%, whereas this limit is 2.25% for debt funds.

Anaya: Oh, does that mean the maximum charges under both these options are effectively the same?

Sanika: Although the maximum levy is the same, these charges are computed differently. But yes, the intention has been to keep the charges in the same spectrum. Also, if one chooses to purchase these investments through the online route, one can forego the commission paid to the intermediary, and hence a higher premium gets allocated to the fund. But one needs to be completely clear about one's understanding of the product, its structure, the charges and so on while making an online purchase. It is also of importance to see how the NAV gets calculated under a particular fund, whether it be an online or offline purchase.

Once you get familiar with mutual funds and gain some expertise, you have the option of switching to a direct plan and manage your fund without involving a fund manager. This will further save costs, provided one has the resources to manage the funds effectively.

Anaya: Alright! And the investment options available under both ULIPs and MFs are quite similar, right?

Sanika: Let me see.....Common types of funds offered by ULIPs fall into four major categories- Equity funds, Cash Funds, Debt funds and Balanced Funds. Equity funds is the high risk-high reward option. Cash funds involve investment in money market funds, cash and bank deposits and money market instruments, which are in the lowest risk category and hence provide lowest returns. Debt funds will involve funds being invested in government and fixed interest securities, corporate bonds etc. This investment involves medium risk and medium reward. Balanced funds are the more stable and have diversified holdings, thus involving medium risk and giving a higher return.

Mutual Funds offer certain Debt funds, Equity funds including Equity Linked Savings Scheme (ELSS), debt oriented and equity oriented hybrid funds, money market funds, sector based funds, and specialty funds including Gold and Property. Thus MFs enable investments into specific sectors, industries, overseas markets etc.

Anaya: The investment option under both these vehicles sound pretty similar to me, with mutual funds offering more options!

Sanika: The difference here is that ULIPs offer a higher degree of flexibility in terms of choice of funds. The investor may switch funds, or modify the proportion of each asset in the asset mix. Switching of funds does not incur any charge up to a prescribed limit. Currently, no charges are levied for around 4 to 5 switches per annum. On the other hand, switching of funds under Mutual funds may incur an exit load along with the switching charges.

Anaya: That's a point in favour of ULIPs. On the other hand, if I am not mistaken, ULIPs have a five-year lock-in period, right?

Sanika: Yes, one cannot withdraw one's ULIP investment up to a period of five years. Mutual Funds have no such restrictions, except under ELSS.

ELSS does have a lock-in period of three years.

Anaya: I am not very concerned with this since I am looking at an investment horizon of 10-15 years.

Sanika: Both ULIPs and MFs give the maximum returns over a longer term. Also, withdrawals at earlier years are likely to incur surrender penalties, referred to as exit load for mutual funds. Exit load is generally not charged beyond the first year, but this may vary with the funds and the fund house. ULIPs may also offer certain loyalty additions as an incentive to continue with the investment.

One more thing, mutual funds offer the option of choosing either a growth fund or a dividend fund. All the profits will be reinvested if one opts for the growth fund. Some profits are received at intervals in the form of dividends, if one opts for the dividend fund. I think you might prefer investing in a growth fund, since you have no need for regular income from your investment.

Anaya: Yeah! Sanika, what are SIPs? That's the term that comes up in almost every conversation about investments these days.

Sanika: SIPs are Systematic Investment Plans. These are options offered by MFs where one makes a fixed contribution at regular intervals, probably on a monthly basis by setting up an Electronic Clearance Service (ECS) mandate. The main objective of SIPs is to encourage regular saving habits, and given the requirement to set up an ECS and not make a payment manually, the chance of contribution being discontinued is lower. Another advantage of SIPs, or any other ULIPs or MFs made regularly for that matter, is that it helps averaging out the buying price of units and hence provides better protection against market fluctuations.

Anaya: What do you mean by 'averaging out the buying price of units'?

Sanika: It means the contributions made buy more units when the price is low and fewer when the price is high, which can mean a lower average cost per unit over a period of time and lessens the impact of short term market fluctuations on one's investment. By investing on a fixed schedule, the investor avoids the complex task of predicting market movements and figuring out the best time to invest, and takes advantage of market dips without worrying about when it will happen.

Anaya: Oh, okay.

Sanika: Also, the exit load calculation for SIPs is a little different. Each contribution made is considered to be an independent investment, and the exit load applies independently to each contribution.

Anaya: Let me try to understand what you've said. Suppose a particular SIP charges 1% exit load on withdrawals during the first year, and one wants to withdraw after 1.5 years of investing in a SIP, the value pertaining to contributions made in the first 6 months would not incur an exit load, whereas an exit load of 1% will be payable on the fund value pertaining to all subsequent contributions. Did I get it right?

Sanika: Yes, that's exactly what I was saying.

Anaya: All these investments are pre-determined in terms of both amounts and timings! Based on my limited information, this exit load calculation sounds a little unfair!

Sanika: We'll have to look up some more information about this, dig a little deeper and understand the rationale behind this. Once you have some more information, you can decide if you think the charging structure is unfair.

Anaya: Will do! Is it possible to avail of a loan against these investments? A loan will provide

some financial comfort. In case of unforeseen events without me having to withdraw my investments, and my financial plan remains intact as well.

Sanika: No loans are available against ULIPs. However, Mutual Fund units can be pledged with a bank or a Non-Banking Financial Institutions to avail of a loan.

Anaya: I know ULIP and ELSS contributions are exempted from income tax payments. Is that the only tax benefit under these products?

Sanika: Tax is where ULIP has an advantage. ULIPs are categorized as insurance products, and fall under the EEE category. This means premium contributions to ULIP is tax exempt up to 1.5 lacs per annum, dividend income if any is tax exempt and the value received on maturity is fully tax exempt as well. Any death benefit paid is not taxable either. Though there's one condition on applicability of these tax exemptions. The death benefit should be at least 105% of the total premium paid under the plan, and at least 10 times the annual premium contributions if the policyholder's age is up to 45 years or at least 7 times the annual premium contribution if the policyholder is aged more than 45 years. Any top up premiums and corresponding maturity values under ULIPs become tax exempt, provided the minimum death benefit condition is met.

ELSS also falls under EEE category, with the investment contribution, investment earning and maturity being tax exempt.

Anaya: I believe insurance products have been exempted from taxation to encourage the practice of insurance. And this minimum death benefit condition makes sure adequate insurance cover is provided under ULIPs and the purpose of providing the exemption is met. Is that correct?

Sanika: Yes, you did!

Anaya: And do other MFs not offer any such exemptions?

Sanika: For MFs, different tax rates are applicable based on the type of fund and the duration for which the investment has remained with the fund house. For instance, equity funds incur Short Term Capital Gains Tax on withdrawal in the first 12 months, with no tax liability on withdrawal beyond 12 months. Debt funds incur Short term Capital Gains tax on withdrawal in the first 36 months, and Long term Capital Gains tax on withdrawal thereafter. Equity Oriented Hybrid Fund will be taxed like an Equity fund, whereas a Debt Oriented Hybrid Fund will be taxed in the manner of a Debt Fund. Investment income from Dividend Funds get taxed as well, but any investment income reinvested in Growth Funds do not attract any tax liability.

Anaya: Sanika, you've given me so much to think about! The type of fund I want to invest in, whether I want insurance cover, what charging structure do I believe is reasonable, whether I should invest in ULIPs for their tax benefits and fund switching options! Is there anything else you can think of?

Sanika: Nothing comes to mind at the moment. I'll definitely let you know in case something pops up.

Anaya: Your in-depth knowledge is indeed impressive! How do you know all of this?!

Sanika: Thanks Anu! I had made a presentation on ULIPs, and that's

where my interest had been piqued. And as I began looking at investment options for myself, I did quite a lot of research, found it to be extremely interesting and hence kept reading up on all these options.

Anaya: Speaking with you, I realise the importance of adequate research prior to making any investment. After all, one should be smart about one's money! I'm now going to make it a point to do the same. Thank you so much, Sanika! I had expected this to be a quick conversation, hence I contacted you in the middle of the week. Just shows how much I have to learn.

Sanika: No problem Anu! And don't hesitate to get back to me in case you have any queries. Also, it's been quite some time since we met. Want to catch a movie this weekend?

Anaya: I was going to make the same suggestion! So see you this weekend! Let's check out the show timings and book the tickets tomorrow.

Sanika: Yeah! Goodnight Anu!

Anaya: Goodnight Sanika!

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