2nd International Seminar by National Insurance Academy & Swiss Re

DIGITAL DISRUPTION: EMBRACING DIGITAL INNOVATION IN (RE) INSURANCE BUSINESS

7th February, 2020
Hotel Trident, Nariman Point, Mumbai

NATIONAL INSURANCE ACADEMY

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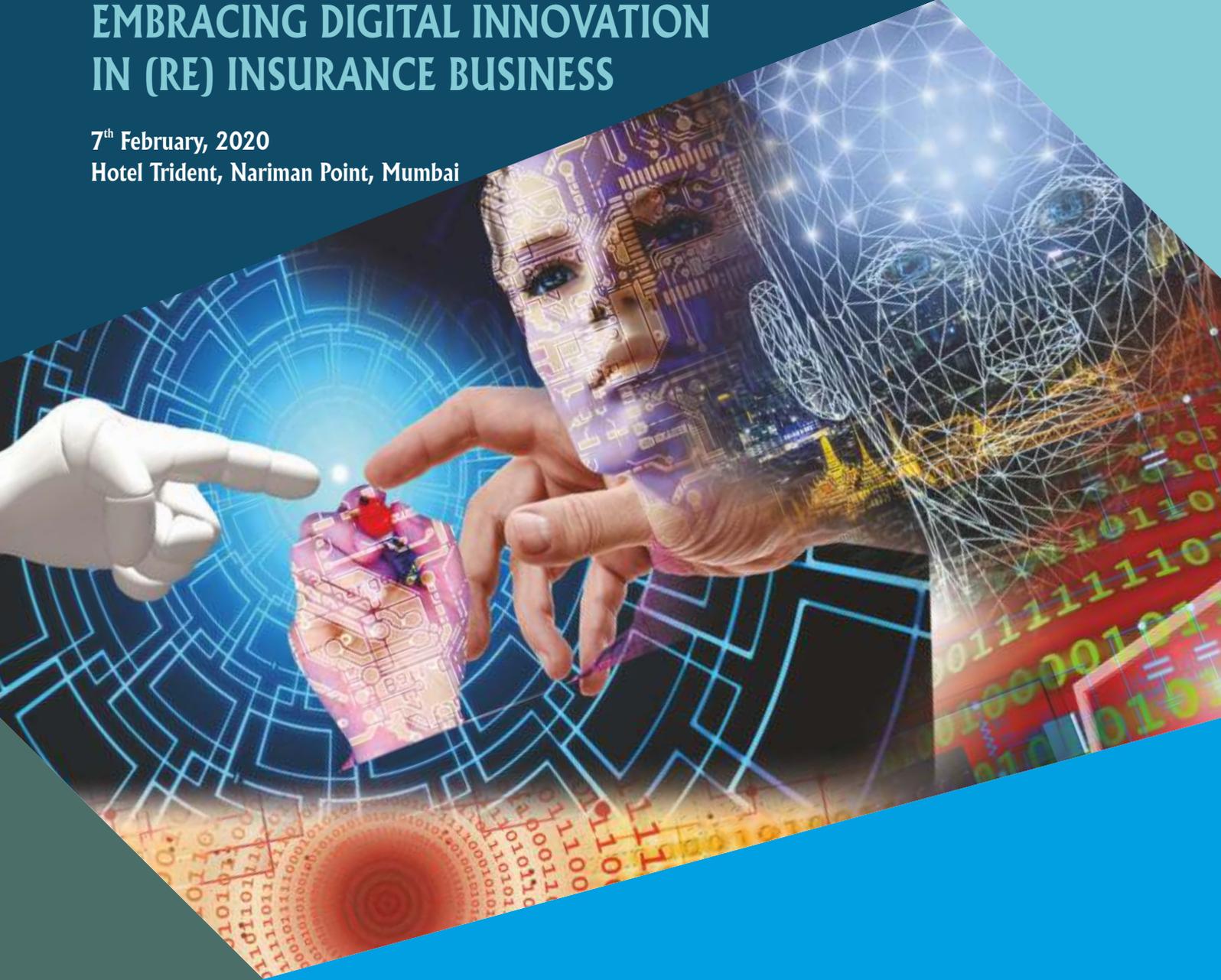
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Preface

National Insurance Academy, Pune, the Apex Training and Research Institute for Insurance in India, in collaboration with Swiss Re, has organized the 2nd International Seminar on the theme "Digital Disruption: Embracing Digital Innovation in (Re) Insurance Business" on 7th February 2020 at Hotel Trident, Mumbai.

The main objective of the seminar was to exchange views, stimulate debate on emerging issues and gain new perspectives on the adoption of Digital innovation by the insurers, re-insurers, brokers, Fintech and InsurTech companies. Eminent speakers from the industry, regulatory bodies, government and academic institutions from India and abroad, deliberated on the global technological developments, how the organization embraces digital innovation, what are the challenges and implications on the insurance and reinsurance business in India.

We are happy to bring out this knowledge paper based on the deliberations held at the seminar. I hope that this report would create an enormous interest and enrich further knowledge on this topic among various stakeholders in the insurance Industry; particularly, insurers, reinsurers, brokers, intermediaries, and InsurTech companies, etc.

Best Regards,

G. Srinivasan,
Director
National Insurance Academy, Pune.

2ⁿᵈ International Seminar by National Insurance Academy & Swiss Re

DIGITAL DISRUPTION: EMBRACING DIGITAL INNOVATION IN (RE) INSURANCE BUSINESS

Hotel Trident, Nariman Point, Mumbai | 7th February, 2020

NIA- Swiss Re Seminar deliberations on "Digital Disruption - Embracing Digital Innovation in (Re) Insurance Business " at Hotel Trident, Mumbai on 7th February,2020

Background

National Insurance Academy, Pune, (NIA) in collaboration with Swiss Re Global Business Solutions India Private Ltd.(Swiss Re) organised the second international seminar, on "Digital Disruption Embracing Digital Innovation in (Re) Insurance Business " at Hotel Trident, Mumbai on 7th February, 2020 in Mumbai.

The seminar highlighted the recent developments and trends in the field of technology and how they are impacting the insurance business across the globe. In this era of digital revolution an increasing number of new and emerging technologies including telematics, Internet of Things (IoT), Block Chain, Digital Platforms and Artificial intelligence (AI) are set to revolutionize the financial services and the insurance industry. The rise in accessible data, increased computing capabilities and changing customer expectations has led to a strong acceleration of AI development driving the industry 4.0. While AI is transforming organizations across all industries, the insurance industry is also embracing these technological innovations in a big way. These breakthrough technologies are reshaping the insurance industry by providing innovative ways to create new product and business models, engage and service customers measure, control and price new and emerging risks, reduce costs, improve efficiency and expand insurability. These technologies have opened up many new avenues for insurers to augment their current state of services including policy issuance, underwriting and claim settlement. With increased technological integration, the dependence on new and emerging technologies has been growing. Cyber risk exposure is also rising. All the key stakeholders –regulators, insurers, reinsurers, risk managers, brokers need to realign, innovate and develop appropriate business solutions. However, the

challenge of proper implementation requires strategic considerations across areas like regulations, investments, distribution and R&D to ensure that the industry does not assume unwarranted risk.

The objective of the seminar was to exchange views, stimulate discussions on emerging issues and gain new perspectives on the impact of "Embracing Digital Innovation in (Re) Insurance Business" on the economy at large and particularly insurers, reinsurers, brokers, regulators and Government. Eminent speakers from the industry, regulatory bodies, government and academic institutions in India and abroad, explored the implications of digital disruption through their deliberations on a host of topics. The seminar was attended by over 350 delegates including CEO's and the senior executives of insurance companies, reinsurance companies, risk management entities, brokers and management students.

Inaugural Session

Welcome Address by G. Srinivasan, Director, National Insurance Academy

At the outset, Mr. G. Srinivasan, extended a warm welcome to the dignitaries and participants and others attending the seminar. Before getting into the theme of the seminar, Mr. Srinivasan apprised the audience about NIA and its activities.

About National Insurance Academy

Mr. Srinivasan mentioned that NIA was set up in 1980 and that in the last 40 years the Academy had emerged as an institution of eminence in insurance education, training and research. In the previous year, NIA had trained 6500 executives in various facets of insurance domain, management, technology. Mr. Srinivasan added that NIA also runs a two year Masters Programme on Management, where along with the General Management subjects, the focus is on imparting risk management and insurance domain knowledge. Mr. Srinivasan stated that more than 1000 alumni of NIA occupy key positions in the industry, not only in India but also in Middle East, Africa, Singapore and USA. The Academy focusses on research and is currently engaged in research on subjects which are very relevant to the industry. He emphasized that NIA's aspiration is to provide a think tank for the insurance industry, policy making and taking forward the insurance industry to higher penetration.

Seminar Theme

Moving to the theme of the seminar, Mr. Srinivasan made some important observations

- The topic "Digital Disruption is a very important subject in the economic space especially for the insurance sector.

- The extent of technology and digital disruption can be gauged from the change in the list of large companies by market capitalization. In 2008 the companies which dominated the list were Petro China, Exxon, GE, China Mobile, AT&T, but today none of them are there in the list. The companies which are at the top today are Apple, Google, Microsoft, Amazon and Facebook. This shows the kind of importance digital is acquiring currently. It is not known, what will happen in the next ten years. It is likely that some Fintech, Insuretech may be the top five of the largest companies by market capitalization.

Digital is Changing the Way Insurance will be Transacted in The Future

Digital is changing in a big way the way insurance will be transacted in the future. There are reasons for Digital making inroads in the insurance sector are;

- An increasing number of the young population, extremely tech savvy customers, who not only understand digital medium, but also want and demand it

- Customers feel empowered in co creating the product rather than having one sided offerings by insurer.

- Digital brings in transparency in a big way. Insurance has always been perceived as an ivory tower industry which shields itself behind clauses and fine print

- Digital brings in a huge openness, and has the potential to increase the trust quotient for insurers.

- The ease of operation offered by insurers in evaluating insurance products, taking policies and getting claims is something which the customer like very much.

- For the insurers, apart from providing customer satisfaction, digital also means economy in cost and reach to the markets.

- In a geographically big country like India, digital can play a very important role in reaching out to customers and deepening insurance penetration.

- The number of internet users in India in 2019 was 53 crore and the number is likely to grow to 69 crore in 2023. India has emerged as the second largest online market. The number of smart phone in 2019 which was 60 crore is likely to touch 95 crore in 2023. About 2,000 Fintech start-ups and a number of Insuretech

start-ups are working hard to completely change the way insurance is done.

- Insurance has largely been a conservative, traditional industry and a regulated sector, but the emergence of insuretech and infotech and the favourable regulatory regime, i.e. the regulatory sand box, has the potential to completely disrupt the sector in a way never

seen before in the coming days.

- Today artificial intelligence, machine learning is being used in India for smarter underwriting, faster claims processing , improved customer service, fraud detection.

- Online insurance distribution is growing very fast. Use of Block chain technology can help in better underwriting, fraud detection, and faster claim settlement. Chat bots and robots are taking the role of insurers advisors. Lot of importance is being given to big data.

Data is the New Oil

An important offshoot of digital disruption is data. Data is the new oil. Insurance industry will be benefited immensely by the use of data analytics in underwriting and better customer connect. Big data, IOT, telematics generate million bytes every day. This can be used for designing wellness products and other innovative products and facilitate operational based guidelines.

Concluding, Mr. Srinivasan mentioned that the seminar is very interesting and timely and includes four sessions on various facets of technology including one on cyber risks and cyber insurance. He expressed his confidence that the discussions during the day, would generate valuable inputs for the various stakeholders including the government, Regulator and the insurance companies.

Special Address

G. Satish Raju,
CEO, Swiss Re India Branch

Mentioning that Swiss Re is a partner of NIA for the seminar, Mr. G. Satish Raju extended a warm welcome to the audience. He said that it is a day of deliberations on a very interesting topic i.e. Digital disruption. Mr. Raju initiated his address by opining that the pace of change in this industry was so unprecedented that every day, one reads of some new development in the industry.

Quantum Computing

Mr. Raju mentioned that a few days ago he came across a very interesting term called Y2Q.

What is Y2Q? Years to quantum. A few months ago, Google announced quantum supremacy. Till now his understanding of quantum computing, was about the order of magnitude increase in the processing speed of computer. What could be processed in mille seconds can now be done in Nano seconds? Fundamentally the way data is looked at

was going to be disruptive. The world runs on data, and on encryption of data. Quantum computing would be upping the data framework and architecture

Cyber Security & Cyber Policies

Mr. Raju mentioned that in the afternoon session a panel on cyber security would talk on cyber policies and how insurers lend protection to customers. Insurers need to understand how to manage the data provided by customers. Are insurers confident that the data can be safeguarded before promising protection to customers?

Data Protection, Fluidity and Flexibility

• Handling the technological developments especially in data protection and word 'F' which signifies fluidity and flexibility. Mr Raju made a reference to the theme of previous NIA -Swiss re seminar which was on Climate change and how insurers handle the change. There are defined roles played by the various stakeholders in the insurance space i.e. the, insurer, has risk exposures to protect, reinsurer, third party providers to assess the risk on their probabilistic risk models and arrive at a risk premium.

• But fast forwarded to now; fundamentally some changes are going on in terms of the way partnership is viewed. There are many players in the ecosystem who do not deal with insurance but bring in a lot of value to the way insurers and reinsurer work together to provide the ultimate service to the customers.

• On digital payment transactions, he said that in January 2020 for the first time in India, the number of digital payment transactions crossed the 1.3 billion digital transactions; a little over 3 years ago in October 2016 it was 1 lac, that is an increase of 13000 times.

• Underlying this whole digital transaction phase and how it came to this stage, is very interesting. The kind of partnership and collaboration that has taken place to bring

this into a reality , in terms of the way the UPI architecture of India stack has been developed , is nothing but a fantastic collaboration between diverse set of players whether it is academicians, government, bureaucrats, non-profit sector ,private sector, etc. A few months back, Google wrote to the Federal Reserve in the US saying to take the example of digital payments in India and implement that in the US.

• There are three layers in payment that is data, payment and identity, when data comes in how the insurance industry fits it into such a framework. Whether it is the industry, private sector, public sector, Government, ecosystem players, regulator, it requires the collaboration of scale seen in the UPI digital payment space

• The regulator is trying to keep pace with the changing dynamics in the insurance industry. It need to bring entities to fit into various partnerships e. g the introduction of web aggregators, for web development, sandbox development etc. new entities to form the partnerships

Mr. Raju mentioned that the industry is in for exciting times and he looked forward to the deliberations during the day. In conclusion he added fundamentally nothing changes in insurance. At the end of the day, insurers have to access risk pools to deliver optimum value to customers. Understanding of risks needs to be aided by people who bring risk pools from outside the insurance industry and help insurers to understand the risks and render value to their customers

Special Address

Shri A.V. Girija Kumar, CMD, Oriental Insurance Co. Ltd.

Mr. A.V. Girija Kumar complimented NIA and Swiss Re for organizing the seminar at a very important time when two happenings have been noticed. One, the global insurance industry crossed the 5 trillion dollars mark recently and the other, coming close on the heels of Davos 2020 where significant comments about

technology and digital disruption for the future were made. He made the following points:

Ernst and Young Global Survey

According to Ernst and Young global survey,

- 80% of the customers today, are willing to use digital and remote contact channels in place of interacting with intermediaries. The long held belief that insurance is a service where advisors play a crucial role, is slowly giving way to reality globally.

- Key areas where digital disruption adds value to the chain across different technologies like telematics, block chain, big data analytics, drones, AI, etc.

Cost reduction; Speed to market; Underwriting Efficiency; Claim Efficiency; Customer experience enhancement, and Sales productivity.

Growth of Insurance Industry: Emerging Economies Vis-a Vis Advanced Economies

Currently the emerging economies are outstripping the advanced economies in the growth rate of the insurance industry globally. The emerging economies are growing @ 7.7 % annually, whereas the advanced economies are around 1.8%, with the aggregate global growth rate being at 3. %. It is forecast that much before the end of this decade the emerging economies will come to an even scale with the advanced economies in terms of GDP.

Mckinsey's Digital Quotient

- This measures an organization's performance across four key dimensions of digital maturity, insurance industry outpaces many industries including banking. There are four dimensions of digital maturity; strategy, culture, organization, and capability.

- Retail has highest level of digital maturity; followed by travel and hospitality; technology, telecommunication and media; insurance; banking and Transport and logistics. This shows that the insurance sector has not been really lagging.

Digital Strategy

The key focus on implementing a strong agenda at the relevant time is, at the heart of digital strategy of most of the value creators in this space. Today insurers should look at integrating digital in their overall corporate strategy. Standalone digital strategy has no meaning. The key trend today is that organization are moving from Chief Digital Officer Concept to Chief Transformation Officer by looking at the role the digital disruption is being asked to play. This is a significant change in the last five years.

Digitization of Customer Journey

- Claims in the digital age is where the insurance can get started. Digitization of the customer journey beginning with digital claims prevention, digital first notice of loss (FNOL), automated claims settlement, digital loss assessment and repair and finally automated settlement. Artificial intelligence has played a crucial role in this journey of claims handling. Lemonade which uses AI bot Maya to automate the application has been hailed as a path breaking innovation of our times.

- Evolution is taking place in artificial intelligence called applied artificial intelligence which is highly specialized on certain tasks and operates in predefined areas. Its possible application could be uncovering hidden patters from structured data, claim database or harnessing image recognition or from Natural Language processing (NLP). AI is evolving very fast People were sceptic for a long time but is now recognized. It was one of the themes for Davos 2020 which recognized that AI is now for real.

Insurance beyond Digital

- Today insurance is moving in a different way as far as digital is concerned .The future is insurance beyond digital.

- The rise of ecosystems and platforms is the key in the future for digital. Earlier companies which were digitized were at the forefront Today digitization a has permeated every level of competitive landscape and the future of insurance stands to be greatly influenced by platforms

- A platform is a business model that allows multiple participants, producers and consumers to connect and interact with one other to create and exchange value. The most successful companies in the digital era including Alibaba, Amazon and Facebook are all designed on platform business model.

- An ecosystem is an interconnected set of services that allows users to fulfil a variety of needs in an integrated way.

- Currently insurers primarily act as risk aggregators, but insurer as well as reinsurer

must certainly look at disintermediation, disaggregation and, commoditization risks as part of the enterprise risk management. In such a scenario adopting an ecosystem perspective i.e. revaluating traditional business model and forging partnership with players, both within and outside the industry could reinvigorate the digital stack

- Adopting insuretech is one such approach. The example of Pinjan, an ecosystem orchestrator which has given rise to about 360 million customers from a single account. Similarly John Bailey the tractor manufacturer in fact has come out with such beautiful farming solutions across the spectrum that today insurance is one of their several services that they give to the farmers that slowly all insurance companies in that geographies are moving towards and partnering with them. Farmers look at a holistic solution and cannot be satisfied with a standalone insurance solution. In fact this is the journey the industry is moving towards.

Takeaways from the Davos meet in January 2020

In conclusion Mr. Girija Kumar made a reference to the Davos meet in January 2020. The takeaways from this meet are:

- At one breakfast meeting Satyam Nadella, Microsoft Chief predicted that 500 million applications will be developed in the next five years.

- Also talked about democratization of technology;

- Shift towards cloud coupled with 5 g will bring in a new wave of innovations especially for services.

- CEOs of insurance companies and reinsurance companies need to have clear technologies in their organization

- Multilateral approaches to trade weakening globally,

- The internet is facing today the early prospects of becoming the splinternet

- Artificial intelligence is getting real:

- Technology has a growing role in addressing climate change

The economy is taking a different turn and we are fortunate to witness several changes happening in our career times that. Mr. Girija Kumar expressed his delight that NIA and Swiss Re had come out with a thought provoking seminar and wished the audience a good day ahead.

Keynote Address

**Shri M. R. Kumar,
Chairman, LIC of India**

At the outset, Shri M. R. Kumar, mentioned that it was an honour for him to address a group of eminent professionals who have come together to discuss a very important theme and that speakers before him had spoken on the need for disruption and how to embrace it.

Changing Global Scenario

- Fast pace changes that are happening in the global scenario today is the predictor of the overarching mega trends that will play out in the next few decades. These trends that are discernible as of now, may be the reference points from where we need to examine the technological developments ; the fourth

industrial revolution such as genomics, mobility, IOT, AI Intelligent robots, block chain and cyber security .

- Shifting of the world economy drivers on the Asian side with China leading the race. As the world transitions into becoming multipolar, new global value chains are emerging.

- Growing younger population of the Asian and African countries, the ageing population of Europe and the shifting dynamics of an

increasingly connected society is creating wealth as well as prosperity in hitherto underdeveloped geographies.

- There is also an irreversible flow from the hinterland of cities .With the fastest growing mega cities, crossing the 10 million mark in population. Many of the biggest Asian and African cities are poised to cross the 30 million mark very soon and it is these mega cities that are going to be the drivers of innovation and progress

- The cutting edge research in personalized medicine and gene editing, the globally coordinated response to outbreaks of communicable diseases ,and the efficiency and effectiveness in managing lifestyle diseases, the reduction in the fertility rates due to increase in prosperity have inexorably altered the demographic profiles of countries

- The Chinese doctor who predicted the outbreak of Corona is no more. In spite of using technology, in spite of getting it through, people did not believe the prediction. It is important that people need to believe that these things can happen and should embrace the same.

- Climate change and increasing climate shocks. Going by the prognosis of global warning and melting polarized caps, the prospect of rising sea levels, would create unliveable cities on the coastal lines on every continent on earth, driving habitation inwards with its own pressure on environment and economic and social implications.

Social Media is Irreversibly Changing the Dynamics of Business

- Social media is playing a key societal role as opinion makers as influencers for business. From tracking the behaviour and surfing habits, marketers are today in a position to personalize and custom design products, and services

- By removing intermediaries, making the customers owners of their preferences, decision and consequences, social media is irreversibly changing the dynamics within the, producer, seller and consumer into that of a partnership model where the consumer is involved in the creation of products.

Importance of Data

Data is the new oil, development of technologies to store, sense, analyse, measure, interpret, predict and find insight from the data is the new Wild West. For the insurance industry these can drive end to end business process of prospecting, converting, underwriting, on boarding servicing and claim settlement, in a very fast and efficient manner. Further it enables the insurers offer convenience service with comfort, contextualisation, personalization, conviction for the customer and advantage in cost.

Internet of Things - A Game Changer

- The Internet of Things is going to be a game changer for the insurance the industry.

- By 2025, the number of connected devices will be more than 50 billion. People use such devices equipped with sensors and triggered functions for both recreation and work.

- The three major tools are telematics, smart phone and smart health whose features delivered by IOT is already being harnessed by the insurance industry to optimize their operations on a technological architecture built using big data analytics and artificial intelligence.

Technology and Solutions

- With one in five persons over 60 years of age in the coming 25 years, one of the issues most countries will face, is that ageing population which will change the dynamics of health care and the facilities required to assist to the management of senior citizen's quality of life .

- Today it is possible to assist the elderly to live with dignity and autonomy with the help of smart devices that measure the critical indicators as well as provide continuous data to motion detectors and activity monitors to remote locations.

- Health providers are devising products and services on continuous connectedness and streaming data from such devices to apprehend events in advance.

- This will be a true nudge for a healthy lifestyle which will ultimately help the customer by way of better health and the insurer by way of reduced health claims and better health.

- The IRDAI Health and Motor intermediary department has vide its by its circular dated 14.01.2020 has granted approval under the

regulatory sand box to various companies and a sampling of the proposal indicates that the Indian insurance industry too, has been an early adopter of technologic solutions for their products .

- Reinsurance is complex business which involves different players with the premium flowing from the customer to the insurer and to the reinsurer and retrocessionaries. With common ledgers being shared between the entities and the ability to track and transfer value without referring to a central data base at each node, will help reduce the response time and minimize the requirement of manual interventions, ensure transparency in the chain of participants, help settle claims and distribute risks as it waxes and wanes over the duration of the cover.

Catching the Rabbit

Concluding his talk, Mr. Kumar hoped that the discussions and research papers to be presented in the seminar would be extremely useful for the participants. He mentioned that Mr. Girija Kumar referred to Alibaba in his talk. In this context he was reminded of what Jack Ma, in one of his lectures, said about catching rabbits. 'If there are a bunch of rabbits and you want to catch one, focus on one.' The seminar will also focus on what needs to be done, what is the rabbit one would catch, which would really connect all what insurers want to do in bringing about digital disruption in the insurance industry.

Inaugural Address

Dr. Subash Chandra Khuntia, Chairman, IRDAI

Introductory Remarks

- At the outset Dr. Subash Chandra Khuntia expressed his happiness to be present in a seminar on Digital Disruption. Congratulating Mr. G. Srinivasan and Mr. Satish Raju and their teams for organizing two seminars; Climate Change Risks in the previous year and on Digital Disruption in the current year Dr. Khuntia mentioned that the seminar themes were topical which would affect the insurance industry in a big way and that the industry should prepare for this eventuality. He said that he was happy, that Swiss Re as knowledge partners is helping NIA and the

insurance industry in this endeavour.

- Digital is affecting every sphere of life; insurance was no exception and the use of digital processes results in increasing efficiency, improving productivity and reduction in costs. Hence the earlier, the industry accept the benefits of digital revolution, the better it would be.

- India is good in software industry because of its strength of human resources. Many CEOs of global software companies are Indians. Hence we should be able to make use of our strength in software to develop the insurance industry as a whole.

- Big data analytics, Artificial Intelligence, is presenting the possibility of revamping the entire ecosystem in insurance. Development of quantum computing, high speed quantum algorithms will facilitate in processing of big data which will help the insurance industry

Digital India

- Five years back Hon'ble Prime Minister of India announced a programme called Digital India. This has resulted in the growth of internet and at present, it is estimated that as many as 66 crore people in India are having broadband connectivity.

- Every village panchayat will be connected through broadband connectivity. Digital connectivity amongst individuals will be available.

- In financial inclusion there is Jan Dhan

programme. Every family has one bank account.

- Mobile phone connectivity is improving and getting converted to smart phone. The large

data generated in such an environment, has resulted in the concept of big data, both structured and unstructured into text, images, and video.

- The size of the data base is growing and it is

estimated to grow five folds from 2018 till 2025.

- Sophisticated analytics based on complex algorithms is opening up new dimensions for business and the insurance industry has to adopt suitable approaches to optimize the large volume of data

Digital Disruption

- Today's seminar is called digital disruption. When computerization was first started, the manual processes were getting translated. The same processes were being followed but the processing was being done by the computer instead of human beings.

- Disruption means that business processes will have to undergo a transformation. New insurance companies that now come into being, develop innovative business processes as compared to the old insurance companies and to compete with them, the old insurance companies need to revamp their business processes with the involvement of big data.

- New insurers i.e. Lemonade in USA and Nexible in Europe, are using the digital applications like chat bots to turn the process of filing a policy or filing a claim into a fast simple and very satisfying experience .

- In India some insurance companies are using chat bots and this will improve the efficiency as they grow using machine learning and artificial intelligence. Policy holders also are

accepting the new development, the technological innovations is happening at a rapid pace. Opportunities exist for both new and established insurance companies for creating new models.

- Increase in insurance penetration will augur well for the economy as a whole as it will improve the protection for the citizens

Technology Initiatives by IRDAI

- For low premium micro insurance products, ways have to be found for reaching out to the segment of customers. The use of technology can make it happen.

- Intermediaries can use digital technology to reach out to the poor who are in need of protection.

- Fintech solution is going to transform the financial services in a big way.

- Regulatory sandbox has been allowed by IRDAI

- IRDAI has already accorded approval to some of the innovative products and processes.

- IRDAI has put in place various other technological initiatives.

- Distribution and sale of insurance policies through the web aggregators and Distance Marketing,

- Electronic storage of insurance policies through the repositories.

- Online sale and service of policies through insurance self-network platform has been allowed;

- Adoption of wellness and preventive element in the product design of health insurance policies;

- Enabling policy holder's grievance redressal through integrated grievance management system is working very well

- Digital submission of regulatory return sand other requests from regulated entities to Business Analytics Project are happening.

Words of Caution

- Current technologies are facilitating better outcomes as they would improve the quality

of life of people in general but precautions have to be taken because of the big data that will be generated, data security and data confidentiality are extremely important.

- Though technology will be the key to success in the future the stakeholders must put the safeguards in place. While the regulator is there to encourage digital processes, they would like to ensure that the customers get a good deal.

- IRDAI looks at the value proposition of the innovation and that the insurers ensure that there are no systemic risks that may pose additional challenges to the financial stability.

- Insuretech companies along with insurance companies must devise products that provide better risk protection; ensure timely settlement of claims and redressal of grievances.

- Issues of security of data and privacy are important.

- Digital disruption will generate so much data risk for every individual may be possible to focus on but if allowed to an unlimited extent, if the risk of each individual is known in finer details, the purpose of insurance would be lost.

- A philosophy should be developed where risks which can be controlled by the individual, for such risks, the individual should be responsible and the risk premium would be higher. But for those risks which are beyond the control of the individual, the community or the insurance company would have to bear the risks. For example, if smoking is going to result in worse health, one may have to put a risk premium. For genetic diseases on which the individual has no control, in such cases IRDAI has issued instructions that these cannot be the discriminating factors With this philosophy, society will benefit; all policy holders will benefit.

- When disaggregation of risks is done,

automation, i.e. the RPA, NLP, Chabot, machine learning, and artificial intelligence will result in the improvement of services.

- In developed markets the protection industry is very close to saturation but in India there is scope for growth, and if the digital processes are used in a calibrated way, then the industry will be able to reap a rich harvest.

Conclusion

Commending NIA for organizing the seminar, Dr Khuntia concluded his address, requesting NIA and Swiss Re to organize more seminars on important themes, so that the experts could come together and apply their minds in creating a better India. He wished the seminar all success

Releasing of the Report on Micro Insurance

Dr. Subash Chandra Khuntia, Chairman, IRDAI released a research report published by NIA on the topic "Micro Insurance - Challenges and Opportunities" and the Seminar's research article booklet. Mr. Shiv Prabhat Chair Professor - Financial Inclusion at NIA, and Dr. Archana Singh, faculty member, NIA under the guidance of Mr. G Srinivasan, Director, had carried out the study. The

report provides crucial information on issues and challenges in way towards expanding the benefits of micro insurance in India. In addition to the report, the organising committee had invited research articles from academicians and practitioners both from India and abroad. NIA received many contributions which has been compiled in the form of a booklet.

While releasing the report, Dr. Subash Chandra Khuntia said that the digital intervention will help

the insurance companies in reaching out to poorest of the poor.

Vote of Thanks

Dr. S. Doss, Seminar Coordinator, NIA

Dr. S Doss proposed a vote of thanks. Welcoming everyone to the seminar, he mentioned that the idea of the seminar was mooted six months back, by Mr. G. Srinivasan Director, NIA. He expressed his thanks to the Chairman IRDAI. Dr. Doss emphasized that the digital revolution is going to play a big part in the insurance industry and the industry should be prepared to take this change head on. He stressed that data management is going to be the biggest challenge that the insurers will face.

Session I:

Emerging Technological Trends and Implications On (Re)insurance Business

Panel Moderator:
Mr. Sandeep Ghosh, Partner & Leader, E&Y

Encapsulating the theme of the seminar, Mr Sandeep Ghosh highlighted the trends shaping the insurance industry. These are:

(i)   **Legacy system and technology platform transformation:** Insurance companies had

traditionally had crunchy legacy system, technology platforms and systems and almost every company was going through major transformation. Some of the transformation is accompanied by intelligent digital operations. This is fundamentally required to be able to sell products directly to the customers, to be able to give customers and agents a seamless, paperless, frictionless experience. This is

required for the ability to remain agile and operate in a digital environment.

(ii)   **Big Data:** Before getting into analytics, an exercise is to be done around data management i.e. how to collect, structure, layer and manage data in order to be able to do analytics and get value out of it.

(iii) **Digitization of the value chain:** Dynamic underwriting, digital ecosystem, providing an Omni channel experience to customers is the third chunk, i.e. front to back digitization

(iv) **Emerging Technologies:** All the technologies available today including AI, Block Chain, ML, NLP, IOT, have facets like facial recognition, personalized chat bots, telematics, sensors, drones. These technologies have to be brought to pare in the way products are sold, customers are serviced, underwriting, claims and other processes of the value chain are managed.

(v) Cyber security, cloud computing bringing emerging risk for the sector

Conclusion:

- Address core and legacy technology platforms, to able to leverage some of the new age technologies.

- Need a data management system for analytics and predictive modelling. All of this is not sequential; one can work on some of this in parallel.

- In 5 to 10 years, the current distinction between legacy companies and insuretech or challengers will not exist. There is going to be convergence and the legacy companies that evolve will look more like insuretech and the insuretech companies that are successful will have the customer base, the trust and the

loyalty that the legacy companies enjoy.

Topic: Applications of Block Chain Technology in Insurance Business

Speaker: Mr. Sumit Ramani,
Consulting Actuary, Acturia Consultants

Mr. Sumit Ramani, explained the concept of Block-chain, the problems the insurance industry has that block chain can potentially solve, applications of block chain in insurance business and how the technology can transform insurance industry in the next 10 years.

What is Block Chain?

Block chain is a distributed ledger which is incorruptible and programmable. Giving an analogy, he said block chain is like a WhatsApp group where all members can send messages. When one sends a message, everybody sees, it and in that sense it is distributed. No one can delete any of the messages. A member might be able to change his version of what the message looks like, but cannot change what everybody has seen. In that sense it is distributed and it is incorruptible.

What is not Block Chain?

- The block chain and Bitcoin are not synonymous; bitcoin is just one used case of block chain. Block chain is the underlying technology which was used and this is true for all the odd coins as well.

- Block chain is not really a disruptive technology but more of a foundational technology. A disruptive technology is one which can change things almost overnight something which wipes out processes and wipe out business overnight. A good example is that of the digital camera. When it came in, Kodak was wiped out very soon.

- Block chain is a list of all the records. It does not store any assets, it is just a ledger. The technology is not mature yet.

- In a bitcoin Block chain it takes 10 minutes to add a block ,and each block has about 2000 transactions and that is same amount of transactions that visa does in one second.

- Block chain is not useful when large amount of transactions has to done in a short span of time.

- Also block chain has its challenges around of talking around two block chain. This has to happen when several block chain can talk to each and the collaboration can happen and then the used cases would evolve.

Problems that the current insurance industry has that block chain can potentially solve

- **Fraud detection:** One of the common type of soft fraud is that of an unhealthy individual buying multiple policies from different insurers where the sum assured, in each policy is below the medical underwriting limit. When the insured dies, all the insurers have to pay to his dependant on multiple claims. This is where the consortium can help a lot. But the way block chain would work, is when each insurance company feeds in the data in a common data base, which is powered by block chain. The insurers could clearly see that the insured is taking the insurance companies for a ride

- **Inefficiency:** Insurance industry has been slow in adopting technology; several processes which could have been automated are still manual, block chain could solve this problem to a great extent

- **Poor customer experience:** Insurers' interaction with customers is minimal. Nothing can be better than that of a scenario where the insurance company pays the claim without the insured claiming it. This is where parametric insurance comes in and this leads to customer delight. A question which arises is can one not do parametric insurance without block chain; that the answer is yes, but the difference in block chain, is that once in a smart contract, neither the insurance company nor the customer can change it, and once in a smart contract the money lies between; ,it is neither with the insurer nor

with the customer and only when triggered by an incident which is called oracle in block chain, the money moves from one party to the other and this brings a lot of trust and efficiency

Barriers to Entry: To start an insurance company today one needs a licence and huge amount of money because of the risks associated with it. Block chain can potentially do some disruption. With block chain it becomes much easier to cover each one e.g. Peer to peer insurance. Currently it is not regulated in most jurisdictions including India and that is why theoretically one could set up insurance company without getting a licence. The other part is raising of capital. That an insurance company has to set aside reserves and capital to ensure that whenever a claim arises it is able to pay for the claims. This means you have to set aside a lot of capital which cannot be utilized in an efficient way. With block chain the reserves and capital crowdsourced to individual investors who are willing to get into a contract where, if the business makes money investor gest money and if the business does not make money they lose the money. Mr. Ramani summed up saying how the world, in the next decade or two will change with block chain. He imagined a world where all relevant records of the individual required for an insurance company, to decide the risks, to be on the block chain, which can be shared with them.

• If the insured visits a hospital for treatment and the insurance company know it; if the insured dies in the hospital, the sum insured under his term insurance is paid to his beneficiaries and his annuity cover also stops

• When the insured travels, his travel insurance gets triggered and in the event of acclaim the same is paid.

• The asset and lifestyle information of the individual is on the block chain. If the asset decreases and if the requirement for cover goes down that changes automatically and if the lifestyle improves, the premium should go down automatically.

• Talking of a world where insurance is dynamic and ensures that the insured is always adequately covered.

Topic: Use of Internet of Things (IoT), Digital Platforms, RPA and Telematics for better Underwriting and Claims settlement

Speaker: Mr. Kamal Aggarwal, CEO & Co Founder, Sen Sight Technologies Pvt. Ltd.

Mr. Kamal Aggarwal highlighted the use of Internet of Things (IOT), Telematics and discussed their possibilities in emerging markets like India.

Telematics in Motor Insurance

• Telematics is putting device in a vehicle (a car, bike, four wheeler) which continuously sends data to the server or the cloud which is

modelled on various parameters. These are being used by the insurance companies to offer newer products to customers.

• The insurance covers are typically classified under three categories; 'Pay as you drive' (pay based on how much one is driving), 'Pay how much you drive' (pay based on driving style) and going forward paying not only on how you are drive but t where the insurance company is also managing driving behaviour of the insured

• Benefits of early adoption of insurance.

• Self-selection of attractive segment of customers. Global studies show that those using telematics are generally safer drivers.

• An insurance company automatically start attracting a pool of customer who are safe drivers, attracting more of younger and first time users as they generally are more open to

adopting technology, more enthusiastic to using telematics and connected devices,

- Moving towards risk based pricing, gathering data that helps insurers to correlate driving patterns to claims, reducing losses, insurers can weed out fraudulent claims

Driving Behaviours and Modelling Parameters

- Customers are given driving scores based on their driving behaviour like over speeding, hard acceleration and so on.

- Customer sees a picture on the App which encourages them to progress to drive safer.

- From the actuarial point of view, there are many more parameters that one can possibly look at. For example whether the insured is driving on the highways, more in the day or night, driving more on familiar or unfamiliar routes

- Referring to data from Indian market of a small sample set of 2000 personal cars owners who are using telematics devices in their cars the following was observed; There are car owners who drive 350 km a week, there are those who drive very few kilometres. They are certain section of the customers who drive more in the in the night, drive more on highway vis-a vis non highway. If, the distance driven by the customers vis-a vis the driving scores are plotted on a chart it will be found that customers at the higher bracket who drive fewer kilometres and have a high score present marketing opportunities for insurers.

On the other hand, customers who drive more and have low score; insurers would potentially charge more. Insurers can identify these small and large pools which can be priced separately. This is real data from the Indian context which telematics could enable -What is missing is data from a telematics provider is correlation to actual claims.

- Telematics providers will have to partner with insurers to see how the risk scores map to actual claims and severity of the claims.

- It is costly to run insurance telematics programme. Providers are working to come out with a range of options.; started working with OPD, with GPS devices that provide lot more than driving behaviour but are costly to run; there are simpler devices, blue tooth dongles which plug onto the on board diagnostic ports . Bluetooth beacons can be placed anywhere in the vehicle and can be used for driving behaviour analysis without getting any information about the customer location. This marries the cost functionality and the privacy aspect of the solution available.

- Sensors can be used for automatic accident detection, accident scene reconstruction , for first notice of claims automatically, provide road side assistance ,weed out fraud, understand who was at fault; the technology can be used for underwriting and improving claims processing.

Opportunities in Telematics

- Newer vehicles with connected car features and there could be opportunity where the data shared by the OEMs with the insurer can be used.

- Car servicing and valuation of used cars. The same device can play multiple roles. This can be seen as the emerging picture globally where the same data can be used by the multiple participants in the ecosystem bringing down the cost of running the overall programme.

Opportunities in Internet of Things (IOT)

IOT allows the insurance company to stay in touch with the customer through the lifecycle. Currently insurers are selling insurance and processing claims but there is a big gap between the two as the insurer is not in touch with the customer through the life cycle. The following can be seen

- Emerging IOT enabled platform ,where the customer is using an connected car, connected body devices, wearables and this is being used to connect the individuals to insurers in terms of getting access to insurance, filing claims;

- Being a mine for customer analytics, to communicate with the customers on a regular basis in terms of what are their needs and to connect them to other players in the ecosystem.

Topic: Aligning with Changing Marketplace, Customers and Society of Tomorrow.

Speaker: Mr. Jonathan Anchen, Head, Swiss Re Institute Research and Data Support, Swiss Re

Digitization is impacting many industries. People are familiar with the impact of digitization in the tech industry. But digitization is also impacting a number of traditional industries which historically relied on people interactions.

Digitization Impacting Traditional Industries

- Mr Jonathan gave an example of what digitization is doing to the health and fitness industry. He gave the example of a German company named Free Letics, which has an AI powered mobile fitness app , actually digitizing a historically people intensive services business. Imagine the case of a fitness industry; one would physically go to a place, work with physical equipment, with a physical instructor who has to keep the clients motivated. Free Letics had not only digitized the whole experience but also personalized it. This spreads across a wide variety of industries.

- Referring to a phrase called app vat, patented by Apple which reflects that if there is a problem, there is probably someone who is going to design an app to solve the problem. What actually the app is doing? It is a subtle shift in terms of who is engaging with the customer and what the interface is going to be.

- The largest messaging apps are becoming dominant in the customer relationship. An example is WeChat which is owned by an Asian player. What these platforms are actually doing? It is no longer a place for people to engage with each other as friends but it is actually becoming a market places where people can buy and sell goods and services.

- What WeChat is doing, in the corona virus, mapping the publicly available data of reported incidents in a couple of Chinese cities? If a user travelling from one city to another wants to know where the infections are most likely to be, the data is made available and actually playing the role of keeping people safe. This was the role which traditionally was being played by the insurance industry. The fire department was started by the insurance companies and it was later that the government took over.

- Tech companies are doing traditional financial services. Anecdote of Facebook having a conversation with a number of big banks telling them to give their data, and that they would give the users we will give you our users. These tech companies will run simple banking services on their Facebook platform

- · It is fascinating the amount of data each one of us has and what can actually be done with it. e.g. email address, location, physical addresses, facial recognition data, chat conversation etc. Algorithms and models are so powerful today that they can predict the personality traits better than close friends and family

- The number of IOT devices which is going to explode on the scene by 2025 will be mind boggling. IDC Forecast is that data is expected to grow to 174.5 zettabyteby 2025. 1zettabyte was crossed in 2012

- A lot of this is real time data and the challenge to find out how much of it is useful; significant work is to be done for which there is scope for collaboration.

- Some financial services are already getting signals from the data. An example is that of Alibaba. They have the credit scores, the higher the score the better. The ones who have a higher score get a lot of benefits, in the form of lower rates of interest in loans, discount in electricity bills, avoid ques in the airports, funny used cases also promote you on sites like shsdi.com for better match, etc.

- Traditional financial services are already doing a lot with these insights but insurers plug in by getting into digital ecosystems and platforms. Early developments can be seen e.g. Amazon one can buy insurance protection for phones, Urban Clap, OLA, Uber selling a few insurance products

- Asia's largest digital insurer and how they are playing in the space. ZhonAng is participating in a number of ecosystems like

consumer finance, auto, lifestyle, mobility. They have a technology company where they have block chain and cloud computing, services which they make available to other insurance companies They can process 32000 policies in a second They have a different vision of how the world of insurance could looks like.

What did Lemonade do, to Settle Claim in 3 Seconds?

Mr. Jonathan spoke on the case of lemonade which settled the claim in 3 seconds. What did they actually do behind the scenes to achieve this? Lemonade is a small personal lines carrier. The claimant had lost a jacket and submitted a claim at 7.30 pm. Everybody had gone home, nobody was in office and as this is what the system did at the backend. First acknowledged the claim; then cross verified with the policy; thirdly it ran 18 anti-fraud algorithms; fourth the money was transferred and fifthly the customer was informed of the settlement. This is the standard set for the insurance companies and a number of incumbents trying to match them in some lines of business. Allianz made a statement want to settle a majority of their small commercial claims within 24 hours.

He concluded by suggesting on what the industry should do, to play in this space. There are five data capabilities:

(i) Choosing the right partner.

(ii) Getting the actual data.

(iii) The customer insights

(iv) The technology itself

(v) Ability to draw predictive insights from the data.

Topic: Changing Regulations (Sandbox) Fostering Technological Innovation

Speaker: Mr. Sanjeev Srinivasan, MD & CEO, Tata AIG

Mr. Sanjeev began with a cautious note mentioning that all the ideas, which the speakers spoke on were awesome but all were forgetting a critical stakeholder i.e. the Regulator. All the ideas talked about were awesome but it can happen, provided it has the consent of the Regulator which is working to protect the interest of the consumers.

What is Sandbox?

- He spoke about the concept of Sandbox and how it will change the way the industry is operating and how the consumer get serviced by the insurers

- Where did the idea of sand box come from? Why is the name of sand box, sand box? When a new software is being installed and work on the software, and one does not want the software to corrupt the rest of the data and programmes, there is a tool called sandbox in which one can conduct some experiments without impacting the rest of your business. This, in computer software language is called sand box

- A lot of ideas that the speakers talked about today here in this seminar were in the interest of the consumers and innovation and required a platform for it to be experimented in the same way a software to be installed is experimented

Regulatory Framework

- The Regulator has a huge responsibility towards the consumers to ensure that ideas which could potentially be damaging to customers and impact the business and erode the trust deficit should not be allowed. Regulators across the globe with a very strong willingness to protect consumer interest and allow innovation to happen created the concept of sandbox, for having a platform for many of the ideas to get deployed.

- In 2015, in UK the whole concept of financial services regulator coming around sandbox, got created. Across the globe, ten countries have adopted the concept, another ten are

taking forward to make a movement around the sand box.

- In India in 2018, it was for the first time, a committee was set up to ensure that experiments could be conducted in a very controlled and regulated fashion. The IRDAI set up the committee in September 2018. IRDAI invited applications across the board on products, services, in operations, in claims and distribution. Over 173 ideas were sent out by the industry and about 33 applications were approved in a record time.

- Complementing the Regulator, Mr. Sanjeev said that they deserve a big round of applause. He went on to add that the IRDAI is more progressie compared to regulators in other countries and also other regulators in the country.

- Over 16 products in health and multiple products in distribution side and the nonlife side got filed and approved. These ranged across the board in terms of the themes, term insurance products and other sachet products. Other concepts which are emerging are that of floater for Motor insurance where the insured has more than one car, an extension of the idea from one product to the other.

- How the insurance products become sachet products when a life insurance policy is a contract of 15 years, health contracts of one year, motor for one year. How they can put such products in very small packets Concepts like these are emerging very strong not only in the motor side but also in Health.

- The industry is at the first level of idea creation where simpler but clear concepts are being used. Going back to the FMCG days when shampoo usage was not much, companies like Unilever, PMG came out with sachets which people started using. This concept is being extended to insurance in the form of sachet products. For example buy health insurance for a week, experience it,

and go for a longer contract.in the future.

A Few things Sandbox is Solving

- Sandbox is clearly creating space for innovation. It is not the case that there was no innovation in the insurance industry in the past but today the combination of ideas, technology platforms, of data the way products are going to get structured is very different. Better access to finance. If insurers are to invest in crazy ideas, the reward return ratio in their minds is not fully solved. Different stakeholders like the block chain technologists reinsurers, actuary want to collaborate because of the global engagement and co-investment and you need not create the ideas on your own to deal with it.

- Regulator allowing companies to invest in technology. Sandbox allows to market it in a tested environment limited number of policies and premium. It is faster to market and has limited failure impact. Even if there is failure it is a limited failure as it is not that it is launched pan India.

- Today is the time for short term and experimental nature of the products. Consumer are today getting products and services that are suited to them.

- Touch points will increase

Concluding Mr. Sanjeev remarked that a 100 years ago, there was a standard premium for the entire group but a time will come when each customer will be charged according to his risk. Sandbox is a great platform for some of the ideas to be tested and commercialized keeping the ideas away which are not as beneficial to the customers. This is the regulator's way of allowing the industry to experiment to service the customers better.

Session-II Big Data and Artificial Intelligence Driving the Digital Revolution in (Re) Insurance

Panel Moderator: Shri Joydeep Roy, Partner & Leader EY

- Thanking Swiss Re and NIA for organizing a seminar Mr. Joydeep Roy remarked that it was a refreshing change to see practitioners and scientists deliberating on this subject. It is a great confluence of minds which can act as a catalyst.

- India has a long way to go to figure out how to adequately insure people. Certain things can really get pushed due to technology. Home insurance is one such area. India is severely under insured in home and that is why in natural catastrophe the insured losses are low.

- The term sandbox is used in computer for cordoning off negative effect ; its origin can be traced to Colonel Rich ,the British founder of Kindergarten who launched sand boxes for children to play; sand pushes and really prevents injury from happening when one falls, so one can try new toys, activities and the sand actually helps you to survive if an experiment does not work.

Insurance Banana Skin Survey

Mr. Roy shared some findings of the Banana skin survey conducted by PWC. What CEOs and CXOs globally are thinking about? This was the 14th year of the Banana skin survey. The top five risks identified by reinsurance companies were

- Technology: It is about the chaos of technology and how to harness technology, how to be nimble with technology and not to get stuck with technology Cyber - cyber security of data, and managing the cyber environment ;looking at cyber policies; learning how to underwrite them properly and how to pay claims ; how to stop leaks so that claims do not balloon

- Climate change: it is surprising that in 14 years, it has appeared 3 times. In insurance companies list it is investment performance which comes in place of climate change

- Change Management: Reinsurance companies are identifying change management as risk both within themselves as well vis-a vis relations with their ecosystem and other partners Regulations: In all 14 years this has come in the top 5 every year. When a global reinsurer is looking at things, even a local insurer is looking at interplay; everybody is wondering how regulations will permit them to what is right in terms of risk management; and regulation is not necessarily on insurance but also investment, fund flow and tax.

Topic: Applications of Artificial Intelligence - Machine Learning Tools in (Re) Insurance Business

Speaker: Mr. H. Krishnamurthy, Former Scientist, IISC

Mr. Krishnamurthy began his talk by telling the audience about the impact of AI. The scientific community is looking at the breakthrough that has happened in understanding the structure of the universe using A I and M L. M r. H Krishnamurthy suggested that he would like to talk from a user perspective as to what is that insurers and reinsurers need to look in terms of AI and ML tools which will be beneficial for their operations.

AI and ML

- Whether AI/ML is looked at a tool or framework is important. Tool has a certain level of maturity. AI and ML are in the introductory phase Most of the platforms available in AI and ML is the framework.

  - There are the metrics with respect to evaluation parameters for software and it is true for AI and ML platforms also. Robustness and the maturity of the software environment is required for software environment to be able to deliver. AI and ML tools are still in the stage of infancy and will have to go through a lot of testing.

  - The class of problems AI and ML will be able to solve today. Where ever there are solutions where suboptimal answers will be acceptable, AI will be able to help the industry.

Recent Developments in AI

- There is an emergence of data; earlier the data handled was numeric and deterministic. Today the data is structured, semi structured, unstructured, conceptual and fuzzy in nature.

  - Data has to be complete, concise and consistent before one can start looking at algorithms

  - AI and ML is also moving towards micro service architecture, in terms of service delivery. There will be exponential growth in computing power, memory capacity, and development of software architecture by distributed processing. Today large number of small processors in the artificial neural network is one of the tools available to deliver services in the insurance and BFSI sector

  - The concept of delivering services is possible with the software available using the distributed architecture looking at the service delivery perspective understanding the handling of large data bases which was not possible earlier,

  - The potential of AI is to improve competeiveness, improve customer experience, reduce the risk exposure, increase profit through greater automation and efficiency, refine underwriting and segmented pricing, this is where AI and ML will play a very important role.

  - Deep learning is a proper subset of machine learning, which is a proper subset of AI. AI, ML, Deep learning, along with data science will be able to help to come out with meaningful analytics based on the tools one has.

Impact of AI on Insurance

- The impact of AI on insurance is addressing the data information asymmetry. Mr Krishnamurthy mentioned that as a part of a team of IIB for preparing a road map which went on to understand the work they were doing and the road map companies have. They found that there was a lot of variation between the policy data and claims data. AI and ML would be able to help the data asymmetry taken care of to a very large extent.

- AI and ML will completely alter the way risk is perceived and modelled. For risk modelling AI and M L will help in ensuring that the modelling has much better quality and enhance the efficiency of underwriting, claims processing and product development. Today we are looking at AI based approach where we go for risk prediction, adaptive automation, intelligent process automation based on dynamic inference, analytics based on large scale data across the life cycle, Focus on insights, more proactive than being reactive. This is what is being done today with the help of AI&ML.

Artificial General Intelligence

Currently we are working in, artificial narrow intelligence (ANI). There is a long way to go to achieve Artificial General Intelligence. Correct knowledge of the human brain is still incomplete. Modelling of the human brain is dependent on our understanding of the human brain. In order to move the AI, to come out with much better decisions, lot of research needs to happen in these area. To conclude in today's context in the insurance portfolio, industry has have started looking AI and ML solutions which will help us in the kind of results expected specially from the point of claim processing and fraud detection.

Topic: Applications of Big Data Analytics & NLP in Insurance Business

Speaker: Shri Balaji Bhakthavatchalam, Account General Manager, DXE Technology

Mr. Balaji initiated his talk by presenting a video showing him sky diving. Why did he attribute this video to Analytics? What you have to keep in mind, is like everybody having a free fall that is a huge

amount of data.

- Insurers are worried, about digital disruption not from insurance companies but from the tech companies .How many of the insurers are using data to the best; that is why the disruption is happening; somebody else who has all the data can literally supersede, steal customer away, can improve the customer experience and the customer engagement.

- IT companies are building AI component into their solution. How best can the data be leveraged. 50% of all business analytics software have incorporated cognitive computing.

- M&A: a lot of companies are in the acquisition space especially in the AI area.

- How all this affecting the business operations; classic programming is getting into learning. All the NLP embedded is helping convert emails, voice into text and then use text to get business outcomes. Where is it getting affected?

- Monitoring, application system in the infra service in the software application space, are using NLP for business outcome management, data from call centres is getting analysed, mixed with social media to give a better outcome; decision augmentation.

- Mr. Balaji spoke about of a tie up of his firm with EDP in Singapore (where the Singapore Regulator was a co investor) and an Australian Company. This is called Digital Human This digital human looks at the muscles in the face, at the mannerism, how one is answering a question, the data and its history, social media experience, background, data from banking records, credit card history. All this is mixed into unstructured format and then structured into parameters, it starts coaching the digital

human, to get an idea on the customer sentiments and predict, the type of product he is going to buy, feelings customers are exhibiting during a customer service transaction. The same is being used for agency to evaluate the agents, to improve the agency effectiveness and arrange training for agents

- NLP is going to stage where the processing, scalability, predictability and consistency is high, and getting better. It is an ecosystem so one does not have to develop it, but tie up with a company which specializes in digital human

- There are companies which specialize in API .they are looking at how a customer's reaction is going to be evaluated; similarly text analytics, all the communication the customer had with a company in the form of emails, forms, gets digested and gets into text in unstructured form which can be used for analytics.

- Claims straight through processing, a standard NLP; all the details that the claimant had in terms of conversion the claimant had in form of emails, exchanges with the insurance company is converted to text and from there is put into a data base which will be queried based on certain rules of the products and actually process the claim. The no touch processing of claims improved by 40%.

- Campaign effectiveness. It is about how data is sliced and diced, improving of cross selling and upselling

- Claims fraud. Graph analytics is being used, by automobile and health insurers where there are multiple entities which are cross referenced through graph analytics.

Topic: Impact of Deep Learning – NLP, Pixel Mapping & Virtual/Augmented Reality for better Underwriting, Risk Management and Claims Settlement.

Speaker : Mr. Prakash Vishwanathan, Founder & CEO of Gradatim

Simply put today AI can be split into 3 basic steps. Outlining the steps Mr Prakash quipped that 5 years ago AI could not be implemented. 3 years ago one could do it, if one had the guts to do it and today one is going to do it because the world doing it.

- Cloud is here to stay. Cloud is the most

powerful infrastructure and the only infrastructure one will ever need to manage AI.

- For any of AI programmes a lot of technology is available including NLP computing, documented analytics, brilliant graphical interfaces, data fabric. Probably one will use only 20% of what is available.

- Selecting the right technology and getting the team right that is practical and can implement without much of a complexity is critical for AI implementation.

Nudge Theory

- An area which has become very popular and got the 2017 Nobel Prize for Economics, Richard Taylor's Nudge Theory. This is a theory which has been put to use by many insurers. He quoted the example of a company in US engaged in cross selling and upselling , has been bought by Prudential for an amount of 1.2 billion dollars

- A phenomenal area of technology which every insurance company should look at, to be able to sell more to their existing customers and to customers who often are looking for a product,.

- This is a functional technology that exists today and can be implemented without much of a challenge.

- Gartner says that chat bot, digital bots, auto ML have reached the hype, but what has reached its potential is speech recognition and a few others.

- AI is easily adaptable in Property and casualty insurance.

Topic: Use of GIS Enabled Technologies to Mitigate Catastrophe Risks

Speaker: Shri Vikas Wadhera, Ex Director, RMS

Mr. Vikas Wadhera has deliberated upon the applications of GIS and CAT Modeling in insurance and reinsurance business as more of as a risk landscape and how it is changing over a period of time.

- There has been an increase in the number of catastrophe events in the second half of last

50 years. In the first 25 years, the number of events and the amount of insured losses were less compared to the latter half. What is driving this, and how modelling and technological companies are helping the insurers and reinsurers in solving some of the challenges?

- 2017 was one of the biggest years in terms of losses that reinsurance and insurance industry faced but 2018 losses coupled with that of 2017 made for the highest ever in two consecutive years.

- Historically, most of the losses were due to earthquakes, floods, terrorism attacks but in 2018 the losses were from camp fires, and other flooding events. So there is a need for insurance companies to focus on the new perils

- Issues that are faced today can be solved if one has a sense of how exposures are organized, Even catastrophe models can be helpful if we have the right exposures in place, because unlocking the scientific value that sits behind the cat models can only be leveraged if we have the exposures for the event, are at the highest possible resolution.

- How globalization has led to the interconnectivity between the exposures that

spread across globally. Earlier the risk exposures that were regional in nature are now more global in nature. Thailand floods of 2011 remind us, how a flooding event could

impact and bring the world to a standstill. Production units in Europe came to standstill.as the parts supposed to come from Thailand could not be delivered in time, resulting in business interruption losses.

- What are the key reasons? Climate Change, Exposure monitoring and exposure landscape - How the exposure are developing in areas which are more prone to catastrophes. Right technology and tools to understand the data where our exposures are. Create risk zones. Real time data is the need of the hour. This is where emergent technology and GIS Technology can help estimating of exposures and resulting losses

- Monitoring exposures. Should we look at cresta / province level aggregates then that does not help us in giving more information? If we have more building level site specific information, or street level information, then these models can help us in build those scenarios that can happen in future.

- If continuous efforts are made to improve the data quality then it will help us in having the right portfolio risk management strategy built in advance when the event happens. While there is a thrust to using GIS technology and other technologies, operations are now being run more smoothly, we need to focus on marrying these technologies with the underlying exposures.

- Various data layers need to talk to each other. If the exposure reservations does not match with the models and technology that we are bringing into picture, then probably it will not deliver the expected results.

- How satellite imagery and various geographical information system (GIS) helps us take some decisions in real time. GIS technology create data layers for exposures.

Mapping all those exposures on ground with reference datum i.e. latitude and longitude, building specific information is going to serve the purpose of protection.

- Every peril is different in nature. Perils like flood require a very high resolution monitoring because from one street to another street the damage could vary, the impact of the flooding event can vary depending upon the elevation in the area this could lead to a situation where one street all the property is flooded, and the other is not.

- From a vulnerability perspective, how vulnerable the structures are, remote sensing techniques have been applied to determine key building attributes. All the data layers, when put together, gives rise to a risk management strategy through which reinsurance and insurance companies can manage their portfolio. Along with this when we bring more and more of data layers together, and trying to marry these with each other, this leads to a term called data link concept. What is happening, is that in the data link, there are different data layers, when you overlay your exposures you can look at various parameters which help in decision making. GIS technology has helped a lot in the agriculture business.

- There has been a significant growth in agriculture insurance business. GIS technology has helped in monitoring real time growth of crops which can help the insurance and reinsurance companies to know the crop yield in the land and they can take decisions during the season rather than wait for the crop to fail.

- In real events there are lot of applications and we saw the example during the Kerala floods. A lot of satellite imagery came picture into in order to decide where the resources should

be deployed to have an effective response. A lot of photographs and videos were uploaded by individuals, which is called crowd data sourcing and marrying that with the satellite picture led to a more effective way of dealing with the situation on the ground rather than waiting for things to happen and looking at when the water is recedes, and the rehabilitation work to start. Lot of lives could be saved.

Going forward, building specific information, is becoming the key in the future for managing accumulations. We need to work on developing the industry, bench mark data products that issues like, missing information or inadequate exposure data that will help in bridge the gap in the exposures and help in better utilizing the other technologies in conjunction that will lead to a situation where the risk management practices are more robust. High resolution catastrophe models will be the way in the future. The future is informed decision making through a combination of big data, the models, the exposure and how one looks at the portfolio.

Session-III: Embracing the Digital Innovation in (Re) Insurance Business (Panel Discussion)

- Digital Innovation foster development of new age products

- Enhancing Insurance Value chain –Intelligent underwriting to Faster claims settlement.

- Enhancing engagement with customers - Deploying high value-add AI models to provide customers with valuable risk insights

- Collaborating with AI partners - Building an effective and agile data ecosystem to support AI analytics application across the organization

Innovation through new technologies is a key driver of change in the Insurance Industry today as this has led to immeasurable efficiency gains, i.e. development of innovative products, improved underwriting, faster claims settlement, improved policy servicing, and reduced cost of operations etc., providing customized and unique customer experiences with improved operational efficiency.

Panel Moderator: Mr. G. Srinivasan, Director, NIA

Mr. G. Srinivasan, highlighted the importance of embracing digital innovation in Insurance and Reinsurance business by saying that it creates Win-Win situation for both the customers and the insurers.

- For customers, it provides hassle free services. Technology helps in simplification of the process which makes easier for the customer to buy the insurance as well as faster claims settlement.

- For insurers, it enables them to issue policies instantly through digital platforms, reaching the customers through multiple channels across the country and reduces the cost of

operation significantly.

- Further, it provides better control on the claims as the insurers enable to get timely claims information through on-line from the customers as well as the surveyors. More importantly, it helps in reducing the fraudulent claims through effective management controls.

Topic: Digital Innovation Foster Development of New Age Products

Speaker: Mr. Neelesh Garg, CEO, Tata-AIG General Insurance Co. Ltd.

Mr. Neelesh Garg opined that the digital technology would enable insurers to introduce innovative products and services, through customized solutions to the customers.

- It would improve the insurance penetration, enables the insurers to enlarge their distribution networks and reduce the cost of operations significantly.

- Today's customers look for end to end solution with value for money rather than just reimbursement of their loss or expense.

- The insurance penetration in India increased from 0.45% to 0.9 % in last two decades. India needs to achieve a penetration of 2 %to 3 % of the GDP. Only Digital can help in achieving the penetration ratio.

- The digital innovation would help insurers in understanding the customer needs at micro level and enable offering them customized product and service solutions at the entire insurance value chain. For instance, in case of travel insurance – the customers look for end to end solutions right from the loss of baggage, delayed flight, loss of passport to overseas medical care.

- In Health Insurance, the customers really want the insurers to provide total health solution – wellness care, disease management, etc., to improve their health rather than the reimbursement of their medical expenses.

- This scenario would bring the entire ecosystem to change from the one-time transaction to entire lifestyle solutions. In life insurance, they are able to provide insurance solutions to the entire lifestyle of the customers meeting various requirements, i.e. savings, risk protection, health cover, children education, unit-linked insurance, annuity and pension cover, The digital innovation would help insurers in understanding the customer needs at micro level and enable offering them customized product and service solutions at the entire insurance value chain. For instance, in case of travel insurance – the customers look for end to end solutions right from the loss of baggage, delayed flight, loss of passport to overseas medical care.

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- Some customers look for insurance cover (Sachet insurance) only for their specific needs like pay as you drive, pay as you go, coverage only during their vacation or leisure trips, etc. Insurers need to understand the customer needs at micro level and offer customized solutions to the customers.

- Regulatory sandbox would enable the insurers to develop innovative covers, for the customer's specific needs as discussed above, through collaborative with Insuretech and Fintech firms.

- Products need to provide over a larger slice of life. How to digitally create products which the customer can consume in a sachet at the time of the customer's convenience.

- Any company or industry ignores or does not understand the needs of its customers the industry or company or the industry will perish and somebody else can take their place. The competition can come from a data company, car manufacturer Wellness Company, if they understand the customers better, they will win. In India companies do not spend enough time meeting customers to understand their requirements. In this context he referred to the formation of Oscar valued at more than $3 billion, (a technology-focused health insurance company founded in 2012, and is headquartered in New York City. The company focuses on the health insurance industry through telemedicine,

healthcare focused technological interfaces, and transparent claims pricing systems).

- What was the need for this company when In US the health insurers are the largest and most sophisticated. There is an opportunity for them to understand the customers better and create value. If we do not open our eyes, listen to the customers, disrupt ourselves, somebody else will take away our business.

Topic: Enhancing Insurance Value chain –Intelligent Underwriting to Faster Claims Settlement

Speaker: Mr. Yannick Even,
Head - Digital and Smart Analytics, APAC, Swiss Re, Hong Kong

Mr. Yannick Even elaborated the applications of Machine learning and AI tools in reinsurance business.

- Today, we have plenty of data from various sources; insurers, intermediaries, customer's social media, Internet data, etc. Machine Learning (ML) Tools helps in understanding the customer's potential risks at micro level. ML helps in predicting the customer risk profile which enable insurers and or reinsurers to improve their underwriting and risk management.

- With the help of Deep Drive Analysis of the Claims data, the settlement process of certain simple claims can be automated.

- Insurers in China uses smart mobile applications which can instruct customers what to do at the time of claims. It enables them to upload the video or photo of the accident parts in case of motor accident claims, through the Apps and the claims are settled instantly (in less than a minute). Similarly, it can also alert the drivers if they are physically tired or dozed off while driving,

which can help in preventing the accidents.

- Machine Learning tools can also help in reducing the fraudulent claims drastically. Swiss Re implemented ML applications in Health Claims Management with the help of Monitory Authority of Singapore (MAS) where the tool uses the hospital data directly and verifies the treatment details including health care cost. Then settles the claim directly to the customers. This has helped Swiss Re in reducing the fraudulent claims drastically, apart from faster settlement of claims and value added services to the customers.

Topic: Enhancing engagement with customers - Deploying high value-add AI models to provide customers with valuable risk insights

Speaker: Mr. Vaidhyanathan, SVP, Product Innovation, PolicyBazaar Co. Ltd.

Mr. Vaidhyanathan stressed the importance of data management and data analysis to understand the customer behaviours and provide values to the key stakeholders.

- In today business world, we have multiple stakeholders; different set of customers, insurers, intermediaries, third party

administrators (TPA), Health Care providers, etc. Every one requires large amount of data for various activities, i.e. to understand the customer buying behaviours, cross selling, upselling, targeted marketing, etc.

- About 20% of the data is unstructured data which we collect from the social media, email, video files, on-line or website, etc. These data need to be structured and integrated with the transactional customer data to perform

useful data analysis. In this context, Data Management with proper data structure and availability of reliable data is very essential to draw meaningful conclusion from the data.

- Predictive analysis helps in uderstanding the customer buying behaviors, right from his product enquiry, product comparison, purchase decision, to what product he is likely to buy in the next 3 or 6 months. It has been observed that the customers who buys motor policy for his vehicle, is highly

correlated with buying life insurance policy and later health insurance policy.

- In digital world, today, customers are highly empowered. In Health Insurance, we see today a large number of customers are very open about their health condition. Further, customer's transactional analysis including voice analysis helps to understand about customer's health condition which can reduce fraudulent claims in health and motor insurance. Management with proper data structure and availability of reliable data is very essential to draw meaningful conclusion from the data.

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Further, customer's transactional analysis including voice analysis helps to understand about customer's health condition which can reduce fraudulent claims in health and motor insurance.

Topic Collaborating with AI partners - Building an effective and agile data ecosystem to support AI analytics application across the organization

Speaker: Mr. Anil Kumar, IT Consultant, New India Assurance Co. Ltd.

Mr. Anil Kumar emphasized the importance of Data Management, Collaborating with Insuretech Firms, Data Quality and Use of Telematics, etc.

- With the help of Telematics, insurers can understand the customer's usage of the vehicle, which vehicle is being used by the customers, where do he frequently visit, how does he drive, etc. These data can help insures to develop new innovative covers in the near future.

- Telematics data can also help insurers for faster claims settlement as the tool provides a detailed information about the claims; location of the accident, cause of accident, types of accident, which parts are damaged, assessment of loss, etc.

Session-IV: Cyber risk and cyber security threats – need to develop comprehensive cyber insurance solutions

Panel Moderator: Shri. Nandkumar Saravade, CEO, Reserve Bank Information Technology (ReBIT)

Shri. Nandkumar Saravade, introduced the theme of the session and stressed the importance

of dynamics of the Cyber risk today and it has been challenging for the organizations to cope up with the cyber-attacks and constantly update the cyber security as the types of attacks are changing

rapidly. The cyber risk exposure is also increasing and some of the attacks are very large impacting the entire sector or the industry and sometimes impacting the whole country. While the cyber insurance coverages that are currently available are very limited. Insurers treat such large attacks as cyber war and saying that it is excluded from the cyber policy. As a result, client organizations are quite sceptical to decide whether to go in for upgrading cyber security or covering them through cyber insurance. At this time, it is interesting to discuss the different facets of Cyber Risk and Cyber Security, and how the insurance does would help in bridging the gap.

Topic: Cyber Risk Threats and Challenges for Financial Sector

Speaker: Dr. N. Muralidaran,
MD & CEO, NSEIT Ltd.

Dr. N. Muralidaran emphasized the need to understand Cyber Risk Threats and Challenges for Financial Sector. At this digital era, it is essential for the organizations to have a comprehensive cyber security in place as the cyber risk is exponentially growing due to higher level of interconnectivity of business operations through multiple devices,

Internet of Things (IoT), Availability of large volume of data including Big data, Use of Artificial Intelligence, Augmented Realty, etc.

- Organizations are currently implementing these digital devices and they are using either expert solutions or digital platforms. Customers' expectations are also rising and they want complete solution.

- Insurers are also using now Artificial Intelligence for their operations – Sales, Policy Servicing, Claims, Underwriting, Risk Management, using smart bots, Telematics, quick claims settlements through smart applications.

- In Financial Sector, companies now increasing use the smart Apps like Valu which tracks your digital assets, in your entire financial lifecycle, i.e. what assets and when you are using them, what purchase decisions you take, etc.

- With increasing use of data and AI tools, Hackers are also now using AI algorithm to monitor the digital transactions, track the cyber vulnerability of the system and target the attack, etc. As the Cyber Cold War intensifies, companies need to improve their cyber security protections and develop faster incidence reporting system.

- Companies need to use 360 degree cyber security assessment commencing from cyber risk identification, assessment, cyber auditing, Disaster Risk Recovery and incidence response system.

- Companies should educate their top management and Boards about the cyber risk exposures, assessments, ratings and security decisions.

Further, they need to go for Cyber Risk Rating and Assessment periodically and have collaboration with other players in the sector which would help them know not only about current level of cyber risk threads and vulnerability, but also would help in building strong cyber resilience.

Topic: Cyber Laws and Regulations including GDPR and Personal Data Protection

Speaker: Mr Vijayashankar N A, Chairman, Foundation of Data Protection Professionals

Mr. Vijayashankar elaborated the Cyber Laws and Regulations including GDPR and Personal Data Protection.

- **Personal Data Protection Act** (PDPA) is getting enacted in India, which is similar to GDPR. However, PDPA is stricter than GDPR. In case if the company violets the

PDPA compliances it not only penalizes the company with a financial penalty (maximum penalty is up to 4% of the company's global turnover or revenue), but the senior manager/CISO is liable for both civil as well as criminal liability.

- It also makes it mandatory for the organizations, which had customer data breach due to cyber-attacks, had to send notifications to all the customers about the incident. The **cost of notification** could be very high if the customer size is very large.

- Similarly, there is also strong demand for **evaluation of data** at different life-cycle and also need to estimate the **total value or cost of data.**

- The PDPA Act would also make it mandatory for the organization to have a **Personal Data Protection Department** with a qualified Compliance Manager who are familiar with the PDPA Act.

- Hence, it could be worthwhile for the insurance companies to come out with **Data Protection Insurance** when PDPA is legally enacted by the parliament.

Topic: Cyber Risk Insurance/Reinsurance – Risk Mitigation Measures
Speaker: Mr. Shrikant Shitole,
Senior Director and Country Head, Fire-eye Inc.

Mr Shrikant Shitole highlighted the Cyber Security Concerns and Risk Recovery Measures.

- The common public use only 1% of the connected Web and the most active web today is Dark Web and Deep Web where Hackers are actively involved with criminal activities. This indicates that how cyber risk and crime is growing today. World Economic

Forum ranks Cyber Terrorism as one among the top three risks.

- The main concern today is how we protect our digital assets with secured cyber security

along with augmenting the productivity using digital applications.

- Every organization needs to carry out minimum 3 types of assessments: 1. Cyber Risk Assessment where cyber risk or thread is regularly monitored and detected, 2. Cyber Compromise or Vulnerability Assessment which examines the possibility of cyber breach or gaps, assess the systems vulnerability and the risk score is submitted to the top management and the Board. 3. Cyber Security Assessment including incidence response or data retrieval system and how resilient is the cyber security of the company.

- He stressed the importance of creating the cyber risk awareness among the key stakeholders of the company, particularly, independent directors of the Board, Top Management and Operational executives of the company through periodical training and interactions.

Topi: Cyber Security Concerns and Risk Recovery Measures
Speaker: Mr. Sushant Sarin,
Executive Vice President & Head,
Commercial Lines & Reinsurance,
Tata AIG General Insurance Co. Ltd.

Mr. Sushant Sarin discussed Cyber Risk Insurance /Reinsurance - Risk Mitigation Measures

- Cyber Insurance basically covers the following three liabilities; 1. Cost of Cyber Investigation, Cyber Forensic and Response

or Data Retrieval. 2. Administrative fines of the regulators and 3. Third party Liability if there is a data breach.

- Further it also covers the Ransom or Extortion cost, Business Interruption Losses and Media or Content Loss.

Summing Up

Mr. Segar Sampathkumar,
Chair Professor (General Insurance),
National Insurance Academy, Pune

While summing up the seminar Mr Sampathkumar called for a collaborative framework to make transformation possible. The industry should be quick and swift in adopting telematics, big data and block chain. These technologies have to work in one direction of enhancing customer satisfaction. This will be a win-win situation for the insurer as well as the customer.

Vote of Thanks

Mr. Kishore K. Panda,
Seminar Coordinator,
National Insurance Academy, Pune

Mr. Panda thanked the delegates and attendees from all over India and abroad who had come for the seminar. He also thanked the hotel staff who had played a crucial role in the smooth functioning of the event. He lastly thanked Swiss Re for the collaboration with the NIA and hoped that it will continue in the future.

Speakers Profile

Dr. Subash Chandra Khuntia,
Chairman, IRDAI

Dr. Subash Chandra Khuntia assumed the office of Chairman, Insurance Regulatory and Development Authority of India in May 2018.Appointed to the Indian Administrative Service (IAS) in 1981 and belonging to Karnataka Cadre… Sir has had an illustrious career in Civil service spanning over 36 years. Sir has been Chief Secretary, Government of Karnataka and before that In Government of Karnataka, Sir has served in various capacities in Departments of Finance, Revenue, Personnel, Urban Development, Rural Development, and Public Works and Ports. In the Government of India, Sir has served in Ministry of Finance, Ministry of Human Resource Development and Ministry of Petroleum & Natural Gas he worked as Secretary (School Education and Literacy), Government of India in Ministry of Human Resource Development. He also served as Government Nominee Director on the Boards of Indian Oil Corporation, ONGC and Hindustan Petroleum Corporation. Dr. Khuntia is an alumnus of the Indian Institute of Technology, Kanpur from where he did his post-graduation in Computer Science and Physics. He has a Ph.D. in Economics and is also a Law Graduate.

M. R. Kumar,
Chairman, LIC of India

Mr. Kumar took charge as Chairman, LIC of India on 14th March 2019. Having joined the reputed organization in 1983 as a Direct Recruit Officer, Sir has served LIC of India in different capacities and functions across the country... Sir has had the unique privilege of heading its three big Zones namely the Southern Zone, North Central Zone, and Northern Zone. As an Executive Director Sir headed the Personnel Department as well as the Pension and Group Insurance vertical of the Corporation. During his tenure, several initiatives were rolled out for the benefit of the employees and the reputed corporation. …An avid reader, Sir considers people to be the biggest assets of an organization.

G. Srinivasan,
Director, National Insurance Academy

Mr. Srinivasan assumed charge as Director of National Insurance Academy on 11th Dec 2018. Before joining NIA, Sir had a distinguished career spanning over 38 years in General Insurance Industry in India and abroad…. Having the coveted and prestigious distinction of being the longest-serving CMD amongst all the public sector insurance undertakings… Before joining NIA, Sir led India's largest general Insurer the New India Assurance Co Ltd and the famous United India Insurance Co Ltd as CMD.as Managing Director, Sir has also led the New India Assurance Co Ltd.'s Trinidad and Tobago subsidiary at Port of Spain

G. Satish Raju,
CEO, Swiss Re India Branch

Mr. G Satish Raju, is Chief Executive Officer of Swiss Re India Branch in Mumbai.

Based in Mumbai, Sir also heads the Global Partnerships function in South Asia, responsible for disaster-risk financing solutions for the public sector.

A graduate in Chemical Engineering from IIT Kharagpur and an alum of prestigious Indian Institute of Management (IIM), Sir has a rich experience of working in the healthcare, financial and Oil and Gas sector in addition to working in the Reinsurance sector

A.V. Girija Kumar,
CMD, Oriental Insurance Co. Ltd

Mr. Girija Kumar joined   Oriental Insurance Company Limited in May 2017. A member of the NIA governing body and GIC Housing Finance Limited. He was also on the board of ITC Limited and National Insurance Company Limited