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Newsletter of GIC Re

GIC Re NEWS

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APRIL 2017

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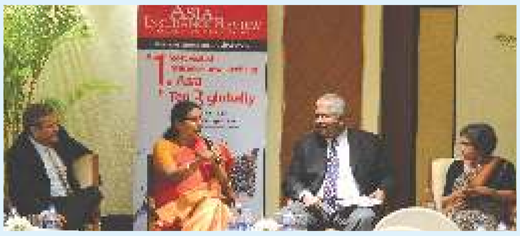
HIGHLIGHTS

CMD, Mrs Alice G Vaidyan delivering the Keynote Address at the 10th India Rendezvous, Taj Lands End, Mumbai held on 19th January 2017. Seated are Mr. Sivam Subramaniam, Editor-in-Chief, Asia Insurance Review and Mr. Denis Kessler, Chairman & CEO, SCOR.



CMD, GIC Re, Mrs Alice G Vaidyan speaking at the Journalists' Event organized by AIR in January 2017. Flanked by (R) Mr Bhargav Dasgupta, CEO, ICICI Lombard Gen Ins Co. Ltd. (L) Mr Sivam S, Editor-in-Chief, AIR, Mrs Mythili Bhusnurmath, Consulting Editor at ET.

Alpesh Shah, BCG, Sakate Khaitan, Khaitan Legal Associates, CMD GIC Re - Alice G. Vaidyan, G Srinivasan, CMD, New India Assurance Co. Ltd., Neelesh Garg, CEO Tata-AIG, Rajesh Sud, MD Max Life Insurance at FICCI's Annual Insurance Conference 2017, 'The Changing Face of Indian Insurance'.

Team GIC Re consisting of GMs - Mr.Pauly N Sukumar, Mr Y Ramulu, Mr. D R Waghela, CMD, Mrs Alice G Vaidyan, GMs Mr VC Jain, Mrs.Usha Ramaswamy, Mr Sushil Kumar and other officials at the Inaugural of IFSC Office in Gujarat International Finance Tec-City (GIFT City) on the 21st April 2017.

Editorial

Data and information are the lifeblood of insurance and reinsurance industry. It is an interesting dynamic that while on the one hand data and information availability are growing to facilitate analytics, these are becoming obsolete at a faster rate than ever before, for analytics. Technological advances are changing every single facet of life including in the area of risk mitigation. Technological advances have taken safety to unprecedented levels for aviation industry and these advances with some more adaptations are making automated driving possible. Such possibilities upend utility of all risk analytics based on old ecosystem.

The growth of data availability together with data-storage and data processing capabilities affects business processes and business models in very fundamental ways. These open up unprecedented opportunities. It has been widely believed that emerging economies including India are lagging in data availability. However, India is most likely to become data rich country from data poor country faster than one might realise, what with increasing adoption of smart phones, web access and increasing government mandated utilisation of aadhaar card. First mover advantage is increasingly losing its viability since empirical evidence suggests that first mover ultimately ends up with legacy issues and a start up may surpass and take the lead since it does not have to contend with legacy issues. This is where emerging economies have an opportunity.

Another paradox that is being observed is that technology is providing so much more information and useful information that commercial entities, in our case insurers, may need to be restrained from utilising all the information. A case in point is the genetic testing which is becoming increasingly affordable and legislature had to step in to prevent "discrimination" based on such test results. Law had to be enacted in USA on Genetic Information to prevent discrimination by health insurers and employers. The law however allows "discrimination" by life insurance, disability insurance and long term care insurance. Genetic testing with its growing affordability and wide spread adoption throws up significant issues on adverse selection and fairness of risk classification. On the opposite side is the development of precision medicine. If precision medicine develops fast enough, the issue of genetic test results may not create major disruptions. However, if it lags, it throws up significant challenges.

Future is quite possibly closer than futurologists have been predicting and we realise. And this momentum is going to increase. Adoption of InsurTech, technological innovations put to use by insurance industry, are a growing imperative for managing cost, managing risk and managing viability of an insurance organization. This issue contains a write up on InsurTech.

Another important challenge faced by insurance industry is the adverse selection. This is particularly relevant for perils such as flood, susceptibility to which to an extent is known and such exposed individuals and entities would seek insurance. It is here that sometimes governments have had to step in to make the insurance affordable as also to manage the adverse selection. India however is in unique position in that vast geographical expanse can negate the adverse selection to a great extent. The role of government in this space however can be a great enabler. The issue features an article on flood peril.

In the context of growing protectionism, rising ultra-nationalism and global financial vulnerabilities, excess global liquidity continues to pose challenge for reinsurers with softening pricing trends. Reports indicate that 2016 accident year combined ratios for quite a few market players show a disconcerting picture. Does this indicate reversal of unsustainable soft pricing trends? If it does not, possibly we are closer than ever before.

- Hitesh Joshi

From CMD's Desk

Alice G. Vaidyan

We are perched at the threshold of transformation. As I write this, the wheels of the process of disinvestment have already begun rolling. The Government of India has decided to sell 25% of its shareholding in GIC Re and it is our endeavour to conclude the first tranche before the end of the current fiscal year. This sale is in accordance with the disinvestment philosophy of the Government - to not only meet its fiscal responsibilities but also to unlock value and improve efficiency in PSUs.

Public shareholding will bring about an enhancement in reporting standards and improvement in corporate governance, besides increasing liquidity for the corporation. Our maiden IPO will truly be an important milestone in our corporate history. We have indeed come a long way from our genesis as a holding company in 1973, growing steadily to become a global reinsurer that will soon break into the global top 10 list. Our constant endeavour is to expand our existing lines of business such as life and agriculture, while venturing into new geographies, particularly across Asia and South America, as we strive for excellence and enhance value creation for our clients and potential investors.

I am proud to announce the opening of our office in International Financial Services Centre (IFSC) in Gujarat International Finance Tec-City (GIFT), Gandhinagar. Being developed as India's first IFSC, GIFT city aims to become an international hub for finance and technology firms, providing world class infrastructure and business-friendly regulations. It is my belief that having a physical presence there will create new opportunities for expansion of business and enhance our public profile, since global corporations are expected to establish operations there in the near future. Establishment of the IFSC is in harmony with the vision of the Government of India to improve the ease of doing business in India, which, in turn, will lead to heightened economic growth and reduction of poverty in the country.

This is the age of information. And technological progress has assisted us in storing, managing and analyzing vast quantities of data, which, while easing the administration of business, delivers better value to the customer. This technological boom has affected the insurance and reinsurance industries in innumerable ways. For instance, Insurtech has enabled telemetry through the Internet-of-Things (IoT), introduced automated underwriting through Artificial Intelligence (AI) and facilitated greater customer choice in coverage through the introduction of online marketplaces. GIC Re is also exploring how best to integrate innovative technology into our operations. We are currently examining the viability of cloud computing and blockchain technologies in our daily sphere of operations. It is our belief that these technologies will lead to cost reductions and improvements in operational aspects. Blockchain technology is being increasingly adopted across the world and even in India in banking transactions. This technology allows financial institutions to execute transactions discretely without human intervention.

> **"Our maiden IPO will truly be an important milestone in our corporate history"**

In India, the idea of payments banks has taken off and licenses have been granted to operators to commence services. This will enable last-mile connectivity and ensure inclusion of large swathes of the country's population that have been hitherto left out of the formal banking channels. Digital payment volumes across the globe grew by more than 10% at the end of 2015, driven largely by rapid growth in emerging economies. Cash less payments in India had grown by 22% annually in October 2016, prior to the demonetization exercise and have exploded since. A Boston Consulting Group study opines that digital payments in India will be 59% of all consumer payments by 2025. This is, however, much lower than the almost 98% figure, by value of transactions, recorded in Sweden in 2015. India with its large population base and limited infrastructure, faces major challenges in its implementation, however, we will slowly but surely get there. To quote writer Joseph Krutch, "Technology made large populations possible; large populations now make technology indispensable".

Increased usage of technology brings about concomitant risks. It is imperative for us to establish a robust cyber-security infrastructure as a natural corollary to increasing our reliance on interconnected digital platforms. Hacking, phishing, digital identity theft, distributed denial of service (DDOS) attacks are becoming far too common nowadays. However, we must not let potential risks cloud our judgment and scuttle adoption of a mechanism that otherwise impacts our organization in a positive and meaningful manner. As Sir Winston Churchill once said, "The pessimist sees difficulty in every opportunity. The optimist sees the opportunity in every difficulty". I am confident that with the necessary safeguards in place, improved adoption of technology is the way forward.

Financial year 2016-17 has been a very productive one for us, as far as our top line is concerned. Driven primarily by the agriculture sector, our gross premium income has grown extraordinarily in FY 16-17. We are very proud to support our insurers in implementing the Prime Minister's Fasal Bima Yojana (PMFBY). This scheme aims to provide coverage to 40% of cropped area in 2017-18 and 50% in the next year, while providing financial security to farmers against perils that affect their crops. As the national reinsurer of the country we are honoured to play our part in providing assistance to this vital sector of our economy and reiterate our firm pledge towards the progress and development of the nation in all spheres. I wish good luck to all GICians in all their endeavours.

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INSURTECH

Reinsurance companies are very much aware of the FinTech revolution: 74% of respondents in a recent PWC survey see FinTech innovations as a challenge for our industry. There is good reason to believe that insurance is indeed heading down the path of disruptive innovation, whether it is the effect of an external factor, such as the rise of the sharing economy, or the ability to improve operations using artificial intelligence (AI). However, despite these emerging trends, a disconnect exists between the amount of disruption perceived and (re)insurers' willingness to invest to defend against and/or take advantage of the innovation. The key business impact that (re)insurers expect from FinTech is the challenge of meeting changing customer needs and the ability to match new offerings with their expectations. Clients now expect personalised insurance solutions, and "one size" simply does not fit all. Being active in FinTech could help incumbents discover emerging coverage needs and risks that require new insurance products and services to insure new practices. The incorporation of FinTech solutions will not only result in a better client experience, but will also bring the opportunity to have more and better touch-points in a business where experience delivery mainly happens around buying, billing and claims. Another business impact is that FinTech is enabling traditional insurers to leverage existing data to generate deeper risk insights. Embracing FinTech could help incumbent insurers gather more insightful and higher quality figures - a game changer, since insurance is a business relying on data risk insights. It would not only increase the speed of servicing and lower costs, but also open the way for ever greater product precision and customization. The following are the major trends one expects in Insurtech with an example of a start-up leading that trend adoption:

Trend 1. Massive cost savers in claims, operations and customer acquisition

Already a major trend, of course, but one that will gain even more importance in 2017. Quite a few insurers face combined ratios that are close to 100, or even exceed that number. Digitizing current processes is absolutely necessary, for operational excellence and to cut costs. Virtually every insurer, big or small, that takes itself seriously will continue to look for ways to operate more efficiently in every major part of the costs column: in claims expenses, costs of operations and customer acquisition costs. Technology purchases and investments by insurance carriers will further explode in these areas, as will the number and growth of insurtechs that cater to that need.

With Out Shared's Cyno Claim solution more than 60% of all claims can be managed automatically, resulting in lower costs as well as increased customer satisfaction. Results of the first implementations: as much as 50% decrease in costs, 40% increase in customer satisfaction.

Trend 2. A new face on digital transformation: engagement innovation

At the end of the day, digitized processes and a lower cost base are table stakes. It is simply not enough to stay in sync with fast changing customer behavior, new market dynamics and increasing competitiveness. No insurer ever succeeded in turning operational excellence into a competitive advantage that is sustainable over the long term. More and more carriers realize that engagement innovation is the next level of digital transformation. Engagement innovation not only includes customer experience, but customer-centric products, new added value services and new business models, as well.

Amodo connects insurance companies with the new generation of customers. Amodo collects data from smart phones and a number of different connected consumer devices to build holistic customer profiles, providing better insights into customer risk exposure and customer product needs. Following the analysis, risk prevention programs, individual pricing as well as personalized and "on the spot" insurance products can be placed on the market, increasing the customer's loyalty and lifetime value.

Trend 3. Next-level data analytics capabilities and AI, to really unlock the potential of IoT

Many insurance carriers have started IoT initiatives in the last few years. In particular, in car insurance it is already becoming mainstream, with Italy leading the pack. Home insurance is lagging, and health and life insurance is even more behind. All pilots and experiments have taught insurers that they lack the right data management capabilities to cope with all these new data streams - not just to deal with the volume and new data sets, but more importantly to turn this data into new insights, and to turn these insights into relevant and distinctive value propositions and customer engagement.

BigML has built a machine-learning platform that democratizes advanced analytics for companies of all sizes. You can use its collection of scalable and proven algorithms thanks to an intuitive web interface and end-to-end automation.

Trend 4. Addressing the privacy concerns

To many consumers, big data equals big brother, and insurers that think of using personal data are not immediately trusted. Most data initiatives of insurers are about sophisticated pricing and risk reduction really. Cost savers for the insurer. However, the added value of current initiatives for customers is limited. A chance on a lower premium, that's it. To really reap the benefits of connected devices and the data that comes with it, insurers need to tackle these data privacy concerns. On the one hand, insurers need to give more than they take. Much more added value, relative to the personal data used. On the other hand, insurers need to empower customers to manage their own data.

Traity enables consumers to own their own reputation. Traity uses all sorts of new data sources, such as Facebook, AirBnB and Linkedin, to help customers to prove their trustworthiness. Munich Re's legal protection brand DAS has partnered with Traity to offer new kinds of services

Trend 5. Contextual pull platforms

Markets have shifted from push to pull. But so far most insurers have made hardly any adjustments to their customer engagement strategies and required capabilities. In 2017, we will see the shift to pull platforms, as part of the shift to engagement innovation. Whereas push is about force-feeding products to the customer, pull is about understanding and solving the need behind the insurance solution and being present in that context. Risk considerations made by customers usually don't take place at the office of an insurance broker. Insurers need to be present in the context of daily life, specific life events and decisions, and offer new services on top of the traditional products. Insurtechs that provide a platform or give access to these broader contexts and ecosystems help insurers to become much more a part of customers' lives, be part of the ecosystem in that context and add much more value to customers.

VitalHealth Software has developed e-health solutions, in particular for people with chronic diseases such as diabetes, cancer and Alzheimer's. Features include all sorts of remote services for patients, insurers and care providers collaborating in health networks, access to protocol-driven disease management support. All seamlessly integrated with electronic health records.

Trend 6. The marketplace model will find its way to insurance

Marketplaces: We already see the model emerging in banking, and insurance will follow fast. Virtually every insurer offers a suite of its own products. Everything is developed in-house. More and more carriers realize that you simply cannot be the best at everything, and that resources are too scarce to keep up with every new development or cater to each specific segment. In the marketplace model, the insurers basically give their customers access to third parties with the best products, the most pleasant customer experience and the lowest costs.

AXA teamed up with Trōv to target U.K. millennials. Trōv offers customized home insurances by allowing coverage of individual key items rather than a one-size-fits-all coverage set with average amounts.

Trend 7. Open architecture

A new ecosystem emerges, with parties that capture data (think connected devices suppliers) and parties that develop new value propositions based on the data. Insurers will have to cooperate even more than they are currently doing with other companies that are part of the ecosystem. When an insurer wants to seize these opportunities in a structural way, it is no longer only about efficiently and effectively organizing business processes, but it is also about easy ways to facilitate interactions between possibly very different users who are dealing with each other in one way or another.

The Backbase omnichannel platform is based on open architecture principles. It leverages existing policy administration systems capabilities and adds a modern customer experience layer on top, creating direct-to-consumer portals and giving the opportunity to integrate best-of-breed apps as well as improving agent and employee portals. Swiss Re, Hiscox and Legal & General are some of the insurers that use the Backbase platform.

Trend 8. Blockchain will come out of the experimentation stage

When Goldman Sachs, Morgan Stanley and Banco Santander decided to leave the R3 Blockchain Group many thought this was proof that blockchain technology apparently was not as promising as initially expected. The contrary is true. We believe a similar scenario will not take place in the B3i initiative launched by AEGON, Allianz, Munich Re, Swiss Re and Zurich. Thinking cooperation and ecosystems are just much more in the veins of the insurance industry. Plus there are plenty of use cases that cut both ways: improve operational excellence and cost efficiency as well as customer engagement.

Everledger tackles the diamond industry's expensive fraud and theft problem. The company provides an immutable ledger for diamond ownership and related transaction history verification for insurance companies, and uses blockchain technology to continuously track objects. Through Everledger's API, anyone can access and supply data around the status of a stone, including police reports and insurance claims.

Trend 9. Use of algorithms for front-liner empowerment

Algorithms that are displacing human advisers generate headlines. Robo advice will for sure affect the labor market's landscape. For a costs perspective, this may seem attractive. But from a customer engagement perspective this may be different. To relate to their customers, financial institutions need to build in emotion. Humans inject emotion, empathy, passion and creativity and can deviate from procedure, if needed. Banks and insurers need to create a similar connection digitally.

AdviceRobo provides insurers with preventive solutions combining data from structured and unstructured sources and machine learning to score and predict risk behavior of consumers - for instance, predictions on default, bad debt, prepayments and customer churn.

Trend 10. Symbiotic relationship with insurtechs

Relationships between insurers and insurtechs will become much more intense. All the examples included in the previous nine trends make this quite clear. Insurers will also look for ways to learn much more from the insurtechs they are investing in — whether it is about specific capabilities or concrete instruments they can use in the incumbent organization, or whether it is about the culture at insurtechs and the way of working. We see an increasing number of insurers that are now using lean startup methodologies and that have created in-house accelerators and incubators to accelerate innovation in the mothership.

The Aviva Digital Garages in London and Singapore are perfect examples. They are not idea labs, but the place where Aviva runs its digital businesses, varying from My Aviva to some of the startups Aviva Ventures invests in - all under one roof to build an ecosystem and create synergies on multiple levels.

To conclude, in a glut of changing trends, insurance companies must prepare to embrace the revolution and start seriously addressing the disruption caused by the rise of InsurTech. Consumer habits are evolving rapidly, and more and more clients expect insurance offerings to cater to their specific needs. FinTech may be complicated and unfamiliar, yet if approached strategically, it could help opportunity-seeking incumbents reinforce their leading positions, and benefit those lower on the ladder by helping them move forward in the race for market share. The unique value proposition of FinTech capabilities within the (re)insurance industry lies in the shift from complexity and longtermism to real-time, easy-to-use, configurable, customised and cost-friendly products and services, all tied within the mobile and real-time technological era. Regardless of the strategic approach adopted, insurers should not be ignoring FinTech.

- Anant Srivastva

References:

1. Global Fintech Survey, PWC 2016: https://www.pwc.se/sv/pdf-reports/opportunities-await-how-insurtech-is-reshaping-insurance.pdf

2. Insurance Thought Leadership http://insurancethoughtleadership.com/top-10-insurtech-trends-for-2017/

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Flood: A Mounting Challenge In Changing Global Climes

A flood is defined by the Oxford English Dictionary as "an overflowing or irruption of a great body of water over land in a built up area not usually submerged." Floods are natural phenomena, but they become a cause for serious concern when they exceed the coping capacities of affected communities affecting lives and damaging property. Globally, floods are the most frequently occurring destructive natural event, affecting both rural and urban settlements. Floods are one of the most wide-reaching natural hazards in the world, affecting a large number of people across many geographies and placing very significant financial strain on economies when compared to all other types of natural catastrophes. Recent losses indicate rising trends, largely due to socio-economic factors such as urbanization, while climate change is also expected to exacerbate the impacts of flooding.

Here, it would be worth mentioning the types of Floods. Floods are broadly categorised into three types. River floods which occur when the capacity of a river system is insufficient to contain the flow of water in the river, resulting in escape of water from the normal perimeter and submergence of surrounding low-lying land. Prolonged rainfall is usually the cause along with number of other factors such as the soil permeability of the area, human interference, reduced catchment area, man-made engineering structures in the area and many more. Second category of flood is Flash floods that arise from intense, localized rainfall, and can happen practically anywhere. India has witnessed and suffered heavily from flash floods in recent past, examples being Uttarakhand and J&K floods with Chennai foods being no exception. Third category of floods is Storm Surges. These are coastal flooding caused mainly due to increased sea level which in turn is driven by tropical storm systems or by strong windstorms arising out of creation of low pressure systems.

Floods are natural phenomena caused usually by excessive rainfall beyond the retention capacity of the particular geographical area. But are floods the result of meteorological and hydrological activities only? Do human activities have no relation to increased frequency and severity of floods? The answer to these questions may differ but what is more important is that answers to these questions are becoming increasingly relevant.

Human activities have interfered with the nature's inherent balances and have left irreversible and incorrigible imprints on the very simple ways of natural processes. The result being global warming and attendant serious climate change. This has led to warmer atmosphere, warmer oceans, rising sea levels and therefore increased exposure to floods due to storm surges in coastal areas all over the world. According to Geneva Association's report titled Insuring flood risk in Asia's high growth markets, it is the oceans which are the key drivers of global extreme events. Warmer oceans mean more water in the atmosphere which increases the potential for an increased intensity of extreme events and associated precipitation. Conutries like Bangladesh where 30% of the country experiences annual flooding mainly from rivers and heavy rains are becoming more and more common.

Let's take recent chennai floods of 2015 as an example. According to Swiss re, floods in Chennai caused an economic loss of $2.2 billion, out of India's total economic loss of $6.2 billion suffered due to disasters in 2015. Indian leaders who attented the COP Climate change conference in Paris in 2016 have made it clear that they believe that climate change has been an important contributing factor. Even the Prime Minister described Chennai floods as a "Man made disaster". There are a number of factors that provides testimony to the above statement. The first and foremost being the excessive urbanisation of the region which has not only reduced the open natural spread that may act as a sponge in the event of excessive rains, it also has led to unplanned developments in catchment areas and encroaching upon many water bodies with illegal construction activity. Also insufficient drainage systems, blocking of creeks and backwater areas by excessive dumping of litter and household wastes, untimely desilting had added to the coping capability. The effect being the quantum of water that would have been otherwise soaked and retained by the earth could not be done. Authorities were forced to release 30,000 cusecs of water from the reservoir into the river whose banks were not so deep and which was not so wide because its banks have been heavily encroached upon over the years, meaning the water did not flow as expected leading to submerged neighbourhood on both sides. By some estimates, Chennai has been deprived of about 300 water bodies over the past few years by illegal constructions.

The question is: How far the changing weather pattern, increased average of global temperatures, rising sea levels should concern insurance industry? Does it need to bother with increasing urbanisation, industrialisation and high concentration of industries in few pockets and clusters that are exposed to higher risk of flooding?

According to an Aon Benfield report, Flood was the most damaging peril of 2016, causing nearly one third of USD210 billion global economic losses. The high number of events including the river flooding and flash floods accounted for 34% of over all losses. These figures are important as this is a notable increase over average of 21% seen in previous 10 years. Also 2016 was the fourth consecutive year where flooding was the costliest global peril. The higher losses were on account of major flood events such those in Yangtze river basin in China, in Louisiana in United States and floods in Europe.

In this context, the role of global climatic change and changing socio-economic structures of the world in the increased global catastrophe extremes cannot be overemphasized. 2016 was the warmest year in records and it can be anticipated that weather related catastrophe losses will further increase in coming years if current trends even remain stable, let go the increasing trends.

The changing profile of flood as a peril in the context of climate change presents different challenges for the flood insurance market. The world has realised this challenge and has reponded in various forms and manifestations. Numerous traditional as well as innovative solutions have been designed from time to time to address the problem by the risk management industry. One of the oldest and important example is that of National Flood Insurance Programme (NFIP) by Federal Emergency Management Agency-FEMA in United States. This, originally a traditional insurance programme, gradually developed into a more innovative product. The programme enables property owners to participate in communities so as to buy insurance protection. It is based on an agreement between local communities and the federal government which states that if a community adopts and enforces a floodplain management ordinance to reduce future flood risks to new construction in Special Flood Hazard Areas (SFHA), the federal government will make flood insurance available within the community as a financial protection against flood losses. An innovative aspect of this programme is that all manufacturers and builders in that community need to have insurance coverage so as to secure any loan or line of credit. The beauty of this programme lies in the fact that it not only provides insurance cover to masses at affordable rate set according to the zones of exposure in which the community lies but also enables members of the community to take measures to mitigate flood risk, thereby encouraging community flood plain management, one of the crucial factors to minimise human effect on environment. This aspect of the programme is very significant in making masses aware of the risk and educating them by practical means. This also leads to pre-disaster preparedness, a must to minimise impact of any extreme flood condition. Another such innovative solution is The Flood Re in UK. Flood Re is a reinsurance company set as a not-for-profit entity, owned and managed by the insurance industry. Although it is managed by insurance industry but it is publicly accountable. The insurance industry itself paid the set up costs of Flood Re, which are over £20 million. This exemplifies the role insurance Industry can and has to play to provide solutions to such issues. The most eye-catching aspect of the programme is that it is the World's first public/private partnership to deliver affordable domestic flood insurance through market-led solution. The scheme has attracted attention from around the world and is surely to be replicated either whole or in part in times to come. But a major criticism associated with this scheme was that it provides insurance coverage only to Home owners and not for Businesses. In December last year, The British Insurance Brokers' Association (BIBA) took a brave foot forward and launched an insurance scheme that provided flood cover for businesses as well. Given the context, Indian industry has also scope for addressing this peril which affects different parts of this vast country. This is a peril where modelling will play a crucial role to be able to assess the risk. To be able to fully leverage the modelling capabilities, India needs to improve the granularity of data by possibly incorporating geocoding as compared to widely prevalent pin codes. Accuracy in risk assessment is a crucial factor in determining actual risk exposure and this model output will certainly prove beneficial to industry.

Various regions in India are quite prone to flood. As per the Geological Survey of India (GSI), the major flood prone areas of India cover almost 12.5% area of the country. The intense monsoon rains from southwest causes major rivers like Brahmaputra, Ganga, Yamuna to swell which in turn floods the adjacent areas while the retreating North Western monsoon is a serious cause of flooding in eastern coastal areas. From Gulf of Kutch to Sagar islands in Bay of Bengal, India has a vast shoreline and therefore higher exposure to storm surges. Major urban conglomerations are located in this exposed stretch and any event of flooding is bound to cause severe socio-economic impact. Also the effect of Global Climate changes is becoming more visible and evident with flooding of areas that were not otherwise considered to be flood-prone. The question that arises here is that with such a large exposure to this peril world over, is the global community prepared to deal with the resultant losses? Is there proper pre and post disaster readiness?

The goal ultimately is to reduce the impact of such events on human welfare and build flood risk resilience in the country and this is where insurance has a major role to play. India has low insurance penetration. Government and the Insurance industry can come up new measures to tackle the issue of flood insurance coverage in areas of high exposures. A pool similar on the lines of terrorism pool may be an innovative approach.

One of the fundamental issues faced by the insurance industry of adverse selection is quite acute in case of flood insurance coverage. For small countries, this requires government to step in since the spread required for law of large numbers and homogenous risk categorisation poses challenges. However, as compared to some other countries, India has the advantage of such a vast geography and huge economy to be able to spread the risk.

Insurance has over the centuries played the role of incentivising risk mitigation. In case of floods, insurance industry can play a very major role by incentivising flood mitigation measures and dis-incentivizing migration of people, construction of new infrastructure and economic activities in the zones of hazards by levying appropriate surcharges. Developing a sound flood resilient infrastructures, proper drainage capacities, greater role of civic authorities and greater public awareness and participation are very crucial to address this risk.

The time is ripe for taking note of the link between climate change and extreme weather events. As recommended by Centre for Science and Environment, India should start climate change adaptation in all developmental policies and programmes. From building of city infrastructures to agriculture and from water supply to energy infrastructure, we will have to make changes to incorporate climate change impacts so that Indian economy is flood resilient.

- Anand Pratap Singh Yadav

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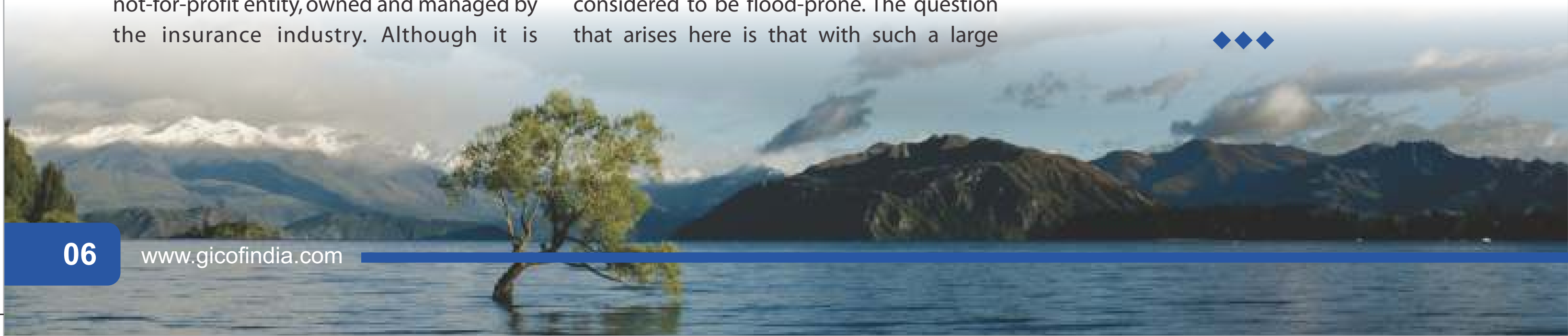

INDUSTRY NEWS

There has been hardly any change in pricing trends for the April 1, 2017 renewals as compared to the January 1, 2017 renewals, as far as market conditions are concerned. The reinsurance industry continues to witness soft market conditions with abundance of reinsurance capital, which stood at $565 bn as of January 1, 2017 including alternative capital of $81 bn. Ceding companies had access to significant capacity for their risk transfer and expansion needs. The concomitant pressure on pricing remains, and coupled with a low interest rate regime impacting investment income, profitability of reinsurers shall remain subdued through 2017. Thinning reserves also reduce the scope of their release to boost profitability. However, a further interest rate hike in the US may help boost incomes.

According to preliminary data for the first quarter of 2017, the global insurance industry has sustained losses of $7.6 bn. This is well below the average of first quarter losses recorded over the last 10 years, which stands at $14.8 bn. About 75% of the losses recorded in Q1 2017 were recorded in the US, due to a very active start to the severe weather season precipitated by mild winters and above average sea surface temperatures. Apart from the US, major losses were recorded in Greater Sydney, Australia (severe hail event), Queensland, Australia (cyclone Debbie) and Western and Northern Europe (strong windstorms).

The first quarter of 2017 has witnessed economicand political events such as, triggering of the Brexit and withdrawal of the US from the Trans-Pacific Partnership (TPP), that have added to the uncertainty prevailing in global markets. There are some developments related particularly to reinsurance that may have a lasting impact on the industry. Firstly, a 'Covered Agreeement' between the US and EU on insurance and reinsurance was finalized in January 2017 to establish parity and reciprocity between the two markets. It is however, currently under review by the US Congress. Secondly, there was a steep cut in the 'Ogden' discount rates in the UK (from 2.5% to -0.75%) which are used to calculate lump sum payout by insurers in the case of large injury claims. This cut has extraordinarily increased potential payouts and led to greater long-tail reserving by insurers and their reinsurance partners. It will also, lead to a hardening in insurance premiums.

The Indian general insurance industry recorded premium income of Rs. 1.27 lakh crore during financial year 2016-17, representing 32% growth over the previous financial year, as per data released by IRDAI. The agriculture, motor and health segments were the prime drivers behind this strong growth. Crossing the Rs. 1 lakh crore mark is a significant milestone for the industry as it seeks to expand insurance penetration in the country (non-life penetration in the country stood at 0.7% in 2015). The data released by IRDAI also indicates that the private sector (35% growth in premium income over FY 15-16) has grown faster than the industry (32%). The market share of the private sector has increased by 1 percentage point even though the public sector continues to maintain more than 50% market share.

The Indian insurance industry continues to generate significant interest amongst both international and domestic investors. This is reflected in the multitude of applications pending before IRDAI to start new ventures. Fairfax Holdings of Canada has been granted initial approval (R1) by IRDAI to float a new non-life insurance joint venture with Oben General Insurance. Fairfax will hold 49% in the new venture. Fairfax already has a presence in the Indian non-life industry through its subsidiary Lombard, which holds 36% stake in ICICI Lombard General Insurance. In addition, Acko General Insurance (promoted by Infosys founder Narayan Murthy) has received preliminary license and Edelweiss General Insurance has received second stage license from IRDAI. Also, others such as IndusInd Bank, DHFL and Arth Capital have expressed their desire to float new insurance ventures. Also, the branches of foreign reinsurers permitted to write business from India are now operational.

The IRDAI has increased motor third party rates by up to 50% across different categories of vehicles such as two-wheelers, private cars, goods carrying vehicles (both public and private), motorised three-wheelers, and trailers. These will be effective from April 1, 2017. Insurers have been barred from cancelling existing policies and issuing new ones in their place to take advantage of the revised rates. General Insurance premiums, viz. car, motor and health, are set to increase from April 1, 2017 as IRDAI has permitted insurers to revise commission for their agents. This increase will be in addition to enhanced third party motor insurance premiums from April 1 onwards. The IRDAI (Payment of Commission or Remuneration or Reward to Insurance Agents and Insurance Intermediaries) Regulations, 2016 have introduced revisions in commission rates and also introduced a reward system for agents. However, the IRDAI has directed insurers to restrict change in premiums to +/- 5% (of existing premiums) as a result of the new regulations. Revision of rates is an annual practice of IRDAI in accordance with its commitment to arrive at actuarially sound rates.

The Cabinet Committee on Economic Affairs (CCEA) has approved the listing of five state-owned general insurers viz. New India Assurance Company, United India Insurance, Oriental Insurance Company, National Insurance Company and General Insurance Corporation of India (GIC). Initially, 25% of the shareholding has been notified for sale. This is line with the Government's philosophy of fiscal prudence and improving corporate governance and risk management practices in these organisations. The capital raised can be used by the organisations for expansion. GIC and New India Assurance are expected to be the first to hit the market, in all probability before the end of financial year 2017-18. In addition, SBI has announced dilution of 10% of its stake in SBI Life Insurance Company. This comes on the back of 3.9% stake sale by SBI in the previous financial year.

Public sector insurer National Insurance Company (NIC) has raised Rs. 893 crore through subordinated debt in order to shore up its solvency ratio. This is the first ever instance of a public sector insurer raising funds by issuing bonds and was required especially in light of the announced dilution of stake in NIC by the Government of India. In addition, The Oriental Insurance Company and United India Insurance Company have also been asked to enhance their respective solvency ratios by the Government of India.

In other developments, the IRDAI has released an exposure draft on risk based capital and guidelines on information and cyber security for insurers. These guidelines, inter-alia, stress on the need for data and information security while establishing a detailed mechanism to ensure the same. Also, the Agriculture Ministry has made Aadhaar mandatory for availing crop insurance from April 1, 2017. The objective is to prevent misuse of the scheme by farmers.

- Rahul Dayal

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Inconsistent Consistent

RSPV- Driver for ART: A Legal Introduction

In mid-1990s, the World saw highly destructive natural catastrophes - Hurricane Andrew and the North ridge Earthquake which caused damage to the tune of $45 billion in 1997 dollars, with insured losses of about $30 billion. This was a substantial increase compared to the previous decade, where aggregate losses amounted to $25 billion. The Insurers came under tremendous pressure of increasing demand for providing risk coverage and contracting reinsurance supply. A need was felt that market should look beyond traditional Reinsurance channels as it lacked the capacity and that should facilitate in augmenting reinsurance capacity at reasonable prices. Structural deficiencies led to the innovation in the form of Insurance linked securities (ILS) leading to convergence of insurance markets and capital markets. ILS lays its origins to Alternative Risk Transfer (ART) [other ART instruments are Insurance derivatives and Equity linked securities]. By nature, ILS could be event based debts like Cat Bonds (catastrophic risk) or Life Bonds (longevity risk/mortality risk) or collateralised reinsurance (privately placed with a small number of investors).

The ILS are attractive to investors due to several reasons, like they provide diversification to Investors' portfolio in terms of Risk-return, are uncorrelated with financial markets such as equities and debts as their derived asset is loss-based event and provide relatively better returns.

Overall, ART market is well developed in the US and Europe but is not so common in Asia due to more reliance on traditional reinsurance channels, credible data deficit (not enough data is modelled and is available) and most importantly, not so enabling legal environment for its growth. For any market, one of the primary considerations for its growth is a stable, standard, predictive and enabling legal environment. Legal certainty in any market is indispensable and a great enabler in modelling the above characteristics.

Keeping the above points in view, an attempt is made to provide a legal overview of one of the key ingredients of ART cuisine which is Reinsurance Special Purpose Vehicle (common terminology used irrespective of cedant)- critical for the growth of ILS and achieving deeper convergence.

A.Concept

First, let's look at the world of Special Purpose Vehicles. RSPV is an important ingredient of Risk Management, which originates from the umbrella concept of ART- Alternative Risk Transfer Mechanism. RSPV is a tool of risk management to both Insurers and Reinsurers that help in providing additional capacity, especially when traditional channels are limited and difficult to come by. Two commonly used modes of accessing ART as a part of risk management involves (re)insurer either creating Captive companies (Cedant transferring risks to subsidiaries) or through a Special Purpose Vehicle - RSPV to finance its risks by securitising them - process known as 'Off-balancesheeting' through RSPVs. Looking at the functionality of RSPVs, they can perform a vital role not only in Indian (re)insurance market but also in its capital market.

In short, it allows for conversion of risks (re)insurance into tradable securities through special purpose vehicles done for three reasons, to facilitate alternative risk transfer by enabling risk alignment and increase risk tolerance, secondly, to untie the capital, which was earlier 'tethered' to the Balance Sheet and thirdly, to provide additional reinsurance capacity to a ceding undertaking. ILS are Liability based securitisation. Main parties involved are Originator/Sponsor (ceding undertaking); RSPV and third party investors. Originator/Sponsor could be one or more insurer or reinsurer or group of reinsurers. In a way, RSPVs are limited purpose reinsurers providing 'reinsurance like services' to both insurers and reinsurers. For Investors, ILS are an attractive proposition but it comes with some risk of losing/getting reduced Principal in case of no claim. Importantly, transferring of insurance risk by sponsor does not amount to any outsourcing of core activity as the sponsor still retains contractual liability.

Now, let's look at the definition. As per Malta regulations 2013 on RSPVs, they are specially designed undertakings, other than an existing insurance undertaking or reinsurance undertaking, which assumes risks from a ceding undertaking and which fully funds its exposure to such risks through the proceeds of a debt issuance or any other financing mechanism where the repayment right of the providers of such debt or financing mechanism are subordinated to the reinsurance obligations of such a vehicle.

Ireland has adopted almost similar definition for defining RSPVs. These are based on EU's Solvency II directive ("S2 Directive").

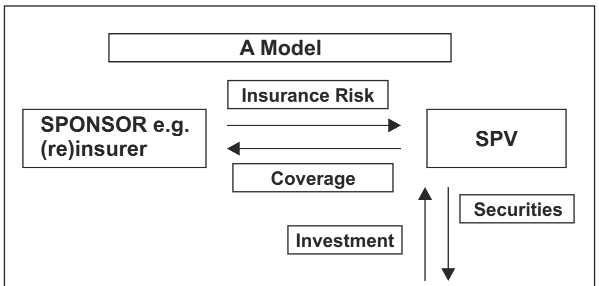
B: Regulatory Framework in the European Union and India:

The choice for legal framework is dependent upon several objectives. The primary objective is that it should be an enabler for the domestic companies to grow and a facilitator for foreign players for investment to generate capital. For example, in Bermuda and other jurisdictions like Malta etc, to name a few, they have a common running thread that these countries' laws facilitate growth of RSPVs. Their legal set-up provide encouragement through tax-exemptions, tax-holidays, and confidence inspiring legal and regulatory set-up.

We can safely conclude that the world of RSPVs cannot survive on their own legs unless provided with proper legal and regulatory support-systems as it requires legal certainty mainly due to its inherent systemic risks, secondly, the set of rules and parameters are different from traditional reinsurance and lastly, the need of having a continuous supervisory mechanism for RSPV ecosystem to flourish and protect policyholders. Let us have an overview of existing regulatory regime governing Special Purpose Vehicle in (re)insurance sector:

European Union (EU) in its S2 directive - Article 211(1) of Chapter IV under Title II, sets the goal for all its member states for establishment of RSPVs, subject to prior supervisory approval. Further, it provides for parameters for supervisory approval which includes mandatory conditions to be included in all contracts. Moreover, under Article 308a (1e) of Section 3 of Chapter I under Title VI provides for **phasing-in** which says that from 1st April 2015, all supervisory authorities shall have power to decide upon approval of RSPVs in accordance with Article 211. Most of the member states have been given flexibility in designing their arrangements for RSPV and post 31st December 2015, any new activity of RSPVs shall be subject to the Directive. EU has a well-developed system of RSPVs under Solvency II regime.

India has been slow to open its Reinsurance market due to varied reasons. As a consequence, not much has happened towards building up of ILS market in India. Of late in 2015, Insurance Act 1938 (short '**Act**') underwent overhauling and allowed foreign reinsurers to open their branches under IRDAI regulations. As per the Act, the role of Indian insurance company is to carry on life insurance business or general insurance business or re-insurance business or health insurance business. Thus, India presently lacks RSPV structure. The Act is silent on allowing



Source: IAIS Global Reinsurance Market Report August 2009

(re)insurance companies to go for special purpose vehicles for transfer of risk. The EU has modelled its RSPV system on authorisation and approval of Supervisors (Regulators). India has Insurance Regulatory Development Authority of India (IRDAI) which is already a member of International Association of Insurance Supervisors (IAIS) that can help in providing seamless exchange and coordination of information amongst different regulators across the world. If we further see, India is not new to SPV ecosystem, which it already has in place for Banking industry for distressed Assets governed by the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002. This implies that India can move towards building up a market for liability securitisations.

C. Risk Transfer Contracts/RSVP Contracts

The primary bases for any RSVP Contract or any reinsurance arrangement is, that of the assumption of risk by RSVP could be only through Reinsurance contract (somewhat different from traditional reinsurance) and that (re)insurer must not diminish its liability by transferring its risks to RSPVs.

Certain mandatory contract conditions have been suggested in **CEIOPS'** advice level 2 implementing measures on S2 RSPV and other supporting material on the issue:

1. Keep its assets at all times equal to or greater than aggregate limit of its obligations including any fee and expenses. This is **fully funded principle**.

2. Incorporation of right to recourse and no-petition (Bankruptcy Remote) clause- Creditors/Investors have no right of recourse to the assets of the ceding undertaking and no rights to apply for the winding up of the RSPV. Meaning rights of Investors are subordinate to RSPV assets - no payment will be made to Investors if RSPV does not remain fully funded. This is **Bankruptcy Remoteness**.

3. Act as per 'Prudent' principle of investment. Actuarially speaking, the assets and liabilities cash flows be matched and duration risk is appropriately managed, diversification of risks, minimum investment risk, high quality assets etc. Such terms and conditions are made a part of risk transfer contracts.

4. Have a clearly defined nature, scale and scope of risks transferred to RSPV.

5. Notification terms of any material change to supervisory authority/regulator.

6. Procedure on breach or non-adherence to compliance.

And the most important of all, such RSPV contracts must have contract certainty, which are the fundamental building blocks of any reinsurance arrangement.

D. Suggestions for Legal framework for RSPV in India:

With the formal advent of reinsurance players in the Indian market, the competition is bound to increase leading to adoption of economical, effective and efficient Risk management techniques and methods. Following are certain suggestions for establishment of legal framework for RSPVs in Indian reinsurance markets:

1. Amendment in 1938 Act, enactment of IRDAI regulations on RSPVs;

2. Incorporation of RSPV undertaking as a separate legal entity as LLP, trust or a limited company or new type of companies' structure Protected Cell Companies (PCC) or Incorporated Cell Companies (ICC) (unlike Bermuda and other jurisdictions. India lacks PCC/ICC structure);

3. Minimal/Neutral tax structure for RSPVs for encouraging RSPVs to locate in India and for offshore RSPV (as Bermuda and the like)

4. Regulation on transfer of risk to off-shore RSPV, eg- arrangement between IRDAI and Regulator of recognised destined country;

5. Pre-application discussions before giving license by Regulator;

6. Time frame for authorisation, approval and Appellate system in place in case of rejection of license;

7. Scope for supervisory review like satisfied fully funded concept, investment policy, due diligence and governance, having legal robustness of solvency requirements;

8. Guidelines for Assumption of risks from single ceding undertaking;

9. Multi-arrangement Special purpose Vehicle arrangement can be explored;

10. Manner of acceptance of risks and investment-contractual arrangements reinsurance contracts/ derivative contracts, eg: mandatory inclusions of certain contractual conditions as stated;

11. Withdrawal of license to RSPV;

12. Clear-cut jurisdiction between IRDAI and SEBI for regulating risk transfer contracts (reinsurance/derivative contracts/risk transfer arrangements);

13. Provision for independent actuarial review;

14. Actuarial Guidance notes/Actuarial Practice Standards on Asset management and solvency compliance of RSPVs;

15. Listing norms can be formulated by SEBI to make securities marketable. Similar arrangements can be explored for listing of ILS in designated country by regulator.

Above are certain suggestions which may be considered while formulating legal framework for RSPVs in India.

E. Challenges & concluding Comments

RSPV carries the features of both being a reinsurance and financial undertaking increasing the possibility of coming under dual control of IRDA and SEBI regulators as ILS and related instruments are used to transfer insurance risks to the capital markets. These include securitisations industry loss warranties (ILWs) and a variety of derivative contracts. The challenge can be met either with clear cut regulations on risk transfer contracts and various transfer arrangements to decide occupying fields of regulators.

Another challenge is the issue credible data deficit. ILS products are complex and literature is not available for Indian reinsurance market.

In light of above discussion, it is clear that with the opening of Indian Reinsurance market, the platter is becoming full with opportunities and challenges and one can expect RSPVs will mushroom in the Indian Reinsurance market provided there is an enabling regulatory set up, that will go on to play an important role in changing market dynamics and making India an attractive Reinsurance hub.

- Arpan Sharma

References:

1. Reinsurance Special Purpose Vehicles Regulations, 2013 (Malta- MFSA).
2. Insurance Act, 1938
3. Jonathan Teacher, "Insurance Special Purpose Vehicles", Nov. 2010
4. EU directive 2009/138/EC and subsequent directives and regulations.
5. Guidance Notes (Hongkong)
6. CEIOPS (EIOPS) level 2 advice.
7. Lloyds website.
8. Kevin P. Sheehan, Catastrophe Securities and the Market Sharing of Deposit Insurance, FDIC
9. http://www.insurancestudies.org/wp-content/uploads/2010/07/ISI_Insurance-Convergence-Series-Part-I.pdf
10. http://www.swissre.com/media/news_release/use_of_indices_in_insurance-linked_securities.html
11. Report on SPEs (Joint Forum), Basel Committee on Banking Supervision, Sep. 2009.
12. UK government website information on ILS.

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The Imperative of Knowledge Management

The English philosopher, Sir Francis Bacon is popularly attributed with the first use of an oft repeated phrase of the 21st century, - 'Knowledge is power'. He coined it in the 1500s much before the advent of the industrial age. The dawn of the knowledge economy was still far-far away. Such is the power of great minds. In the 21st century, knowledge is indeed power.

In the industrial era, wealth was created by using machines replacing human labour. Other than the agriculture and labor-intensive economies, the global economy is in transition to a 'knowledge economy', where rather than commercial products, services and expertise are the main business outcomes and knowledge-intensive activities are used to generate values.

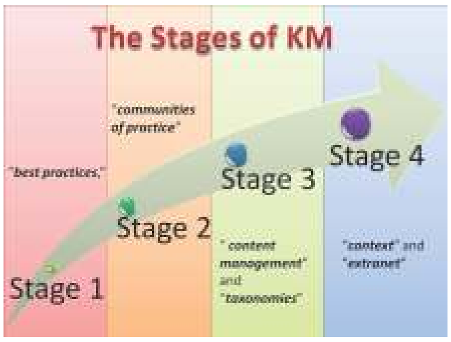
This transition is rewriting the rules of the game and the practices that determined success in the industrial economy are losing their relevance. In their endeavour to gain competitive edge in these globalised economies, companies are shifting focus from managing tangibles like physical assets and natural resources to managing the intangible intellectual inputs and capabilities. Knowledge resources have become as critical as other economic resources.

Thus, though 'knowledge is power', its benefits today are realized only by organizations where it is captured, organized, shared, applied, refined, updated, created and safeguarded. Gardiner Hempel Jr., partner with a consultancy major prefers to express knowledge management as a formula: $K=(P+I)^s$. Knowledge is people plus information, raised exponentially by the power of sharing. The systematic management of knowledge assets for the purpose of creating value and meeting tactical & strategic requirements is what is called knowledge management.

Highlighting the importance of managing and leveraging knowledge for competitive advantage, Hewlett Packard's CEO Lew Platt said 'If only HP knew what it knows, it would make three times more profit tomorrow'. Along with innovation, operational efficiency and talent management, knowledge management has been recognized by Infosys as a differentiating factor to race ahead and win in a knowledge based economy, characterised by changing dynamics and cut throat competition.

Like for all organizations world over, knowledge management is of prime importance for reinsurance companies. Global and multi-cultural they have huge amount of information present across multiple locations and languages and are flooded with an overwhelming volume of data from all quarters. Information, however, is usually not equivalent to knowledge. Knowledge is something more than mere information owing to its subjective and contextual nature. Most simply put, knowledge is the concise and appropriate collection of information in a way that makes it useful. This brings us back to, 'knowledge management'.

Knowledge management enablers



KM sits at the intersection of people, technology and processes. Knowledge management enablers are made up of two independent but correlative interacting systems, social and technical. The technical system is concerned with processes, tasks, and technology. The social system is concerned with attributes of people, relationships among people, reward systems, and authority structures.

The technical enabler

Our abilities to produce data and information have exceeded our knowledge management skills. This is where information technology comes in. Good knowledge management tools can reduce the information glut, support creative scientific synthesis, and aid effective knowledge application. Choosing the right technology platform is the key decision on which the effectiveness or otherwise of an organisations knowledge management hinges. IT solution firms offer numerous technology platforms that help reinsurance organisations achieve the desired result by helping to streamline processes like claims handling, new business underwriting and billing.

The reinsurance industry with its knowledge-intensive, complex and manual processes prone to vibrant changes of goals, information environment and limitations are seen effectively leveraging technology by investing in effective technological tools. This delivers substantial return on investments and measurable business benefits throughout the insurance value chain including visible benefits to the product, sales and marketing, channel management, contract administration, claims and benefits as well as customer products.

> **Fortune 500 companies lose roughly USD 31.5 billion a year by failing to share knowledge. - Forbes**

However, little attention is paid to the fact that when an employee leaves an organization, its information, experience, contacts, relationships and insights also leave if no attempts are made to identify and capture this knowledge inside the company. As David DeLong (2004) says "Lost knowledge is an invisible problem, so companies don't always see the threat." According to Forbes, Fortune 500 companies lose roughly 'USD 31.5 billion a year by failing to share knowledge'. This brings us to the main focus of this piece.

The social enabler

Effective knowledge management has a strong social or human component. Structure, culture, and people form an organization's social system. People with their knowledge and education are the intellectual capital which is crucial to success of reinsurers but has the peculiar characteristic of 'mobility'. Regardless of their role, employees accumulate a career worth of knowledge: about the industry, their role, the company, its products, employees, and customers, irrespective of the industry they work in, more so in reinsurance which thrives on relationships. It therefore is critical to safeguard this strategic asset from erosion.

In recent years even the public sector has begun to see high employee turnover with most employees working with only a two to five years horizon. Though there is no denying the fact that globally the 'baby boomer' generation is growing older, in the context of the Indian public sector the number of people expected to retire over the next decade is significantly high. Add to this the new phenomenon of rapidly losing employees to mid-career job changes. That means a mass exodus from the workforce with its potentially crippling loss of knowledge. Then there is the need to develop a second or third line to take care of the mandatory workforce transfer and mobility policies which these companies enforce. The situation demands long term planning: succession planning, not short term strategies. Succession planning involves systematically identifying, assessing and developing talent to ensure the leadership and management continuity for all key positions in an organization. Knowledge management is an important segment of this overall approach. These issues require the urgent attention of our human resource departments, senior management and governments. In fact any organization with scale has the need to address these issues.

All organizations are faced with this problem. Even NASA has been reported to have faced this challenge in 2004. The scientists and engineers who had originally sent man to the moon were retiring or being made redundant. As they walked out of the aeronautical giant's doors, these specialists took with them the skills and expertise. Eventually NASA was forced to bring employees out of retirement when President Bush announced plans to send man back to the moon. Desperate measures for desperate times. As retirees know the culture, history, and have the extensive social networks necessary to get the work done, it is the easiest knowledge recovery tactic to rehire them. The truth is that it only creates an illusion of control over knowledge. There is no escape from putting in place techniques to capture and transfer the critical knowledge before it is lost.

The real price for employee turnover includes direct costs like hiring and training costs as well as indirect costs like opportunity and morale costs. Some studies predict that losing a salaried employee can cost as much as 2x their annual salary, especially for an executive level employee. In short the costs can be enormous. How to minimise them is the question and knowledge management, the answer. It helps organizations bid goodbye to employees satisfied that their critical knowledge has been retained.

Organisations have peculiar nature of work, environment and resources that they can invest in knowledge management. Though there are no 'one size fits all' solutions to its implementation, the basics remain the same. To begin with, organizations identify the knowledge that is considered an asset. This is the process of sieving knowledge from heaps of information. Then, they identify the people holding the identified knowledge. In the final step, they zero in on the most suitable techniques to capture and transfer the same. This process can be tailor adjusted to suit indigenous needs.

The Process of Knowledge Management can be broken up as:
To begin with, organizations identify the knowledge that is considered an asset. Then, they identify the people holding the identified knowledge. In the final step, they zero in on the most suitable techniques to capture and transfer the same.

No amount of effort can guarantee that all vital knowledge has been captured or will be shared. That however, only means that every possible effort in this direction should be made and sustained over a period of time long enough to make it an integral part of the organisational culture. Culture is an important restraint to or enabler for successful knowledge management implementation. Resources are easy to come by but the most critical element of any such organised effort is a culture conducive to the same.

Culture formation can be seen from at least two perspectives. One is that, knowledge being their USP, there is a tendency in knowledge workers to cling on to this prized possession, lest they lose their competitive edge. The challenge is to create an atmosphere that encourages knowledge sharing, while simultaneously underscoring that transferring knowledge is a way for employees to leave a legacy that will ultimately help the organization long after they leave. The other is that, organisational attitude normally discourages employees from informing or talking about their exit plans. Such organisations lose the golden opportunity to capture critical knowledge before an employee leaves with only themselves to blame. The need is to uproot resistance and implant a culture of uninhibited sharing by integrating knowledge sharing processes into the ways of working and rewarding innovation, experimentation and reflection.

At (re)insurance organizations in particular, a great deal of knowledge gets embedded in organizational functioning through processes which are driven by management, actuarial and regulatory requirements. Underwriting though increasingly being

made into a science, to the extent it remains an art can benefit greatly from knowledge management. While the private sector needs to gear up to putting in place formal succession planning, it does invest time and energy in the routine of exit interviews and buddying. The public sector is yet to wake up even to the need to have a knowledge manager as part of their HR. One thing is sure, no organisation can afford to stand by and watch its critical knowledge walk out of the door/ en masse?

Knowledge is of two types: explicit and tacit. Explicit knowledge is more formal, codified or structured and can be preserved and transferred through on the Job Training, Job Aids/ quick Reference Guides (checklists, flow diagrams, reference tables, decision trees, Internal Wikipedia, central Information, Document and Procedure Repositories with navigation and categorization features capable of being viewed and retrieved and Apprenticeships, Internships, and Traineeships with colleges, universities and trade schools to strengthen the pipeline of talent.

Tacit knowledge includes cognitive skills such as beliefs, intuition and mental models as well as technical skills such as craft and know-how. It is considered more valuable because it provides context for people, places, ideas, and experiences. Often, people are not aware of the knowledge they possess or how it can be valuable to others. People carry it in their minds and is, therefore, difficult to access or transfer to another person by means of writing it down or verbalizing it, especially at a senior level. It is gained through experience. High level information about the company, how and why certain decisions were made, project experiences, relationships and network knowledge is difficult to articulate and capture as it is entrenched in the top management's experience. Effective transfer of tacit knowledge generally requires extensive personal contact and trust.

Mentoring, Coaching, Shadowing, Joint decision making, Interviews, Storytelling, Networking, Knowledge Blogging, Think Tanks are some strategies directed to tacit knowledge management. Expert interviews/group sessions/storytelling which can be audio/videotaped are often effective as a person can describe not only what was done but provide context and explain the judgment behind the action. It makes tacit knowledge more explicit. These are also easier for the experts than having to write down all the details and nuances. Learners can also ask questions and probe more deeply to ensure understanding. These in-depth interviews of retirees can then be posted on the intranets.

Most organizations have a notice period of one to three months, during which the leaving employee can be allocated to guiding and developing less experienced employees (mentoring) or to monitor their performance by providing feedback, direction, support and instruction

(coaching). Similarly less experienced staff can be allowed to observe the leaving employee perform its role to ensure both the 'obvious' and 'hidden' elements of that position are documented (shadowing).

Knowledge is obtained through a variety of experiences, over a period of time, and is the primary factor in exercising sound judgment and decision-making. The goal is to retain it to create value through access and reuse. It needs to be understood that the problem is not just one of headcount. It is a matter of retaining or replacing the sophisticated, context-dependent knowledge that resides with the employee who is leaving, thereby avoiding re-inventing the wheel.

A word of caution in the end. Etienne Wenger, Educational Theorist and Practitioner, indicated that 'knowledge management will never work until corporations realize it's not about how you capture knowledge but how you create and leverage it'. Knowledge management concentrates on the management of the known and may result in the neglect of other equally important factors influencing the performance of businesses – management of the unknown or ignorance.

Ignorance about an issue is said to be "rational" when the cost of educating oneself about the issue sufficiently to make an informed decision outweighs any potential benefit one could reasonably expect to gain from that decision, and so it would be irrational to waste time doing so.

In the 1950s economist Anthony Downs coined the concept of 'rational ignorance'. In many situations, Downs observed, learning isn't worth the bother. Business today is characterised by outsourcing so much so that it is a business in itself and has the potential to support entire economies. Like we outsource our day to day needs, say of a haircut or tooth extraction to professional experts, we're outsourcing memory and knowledge to the internet for the sake of efficiency and accuracy. Except the fact that it is making us meta-ignorant: unaware of what we don't know.

The Latin maxim ignoramus et ignorabimus, means "we do not know and will not know" - limitations of knowledge management.

The limitations of knowledge management are laid bare by the Latin maxim ignoramus et ignorabimus, meaning "we do not know and will not know". Many organizations do not know, or seek to know, their own ignorance. Most organizations do not manage their ignorance, or knowledge about their ignorance, in a systematic fashion.

Peter Senge, an American systems scientist and author of a seminal management book Fifth Discipline writes, 'Lifelong learning is important for an organization because learning results in creating. The more people in an organization learn, the more value they can create for the company.' We need to know that beyond knowledge management lie the frontiers of ignorance management and expertise management.

Knowledge and Ignorance

Knowledge	Ignorance	
Justified true belief	Known Unknowns (ignorance, rational ignorance)	Unknown Unknowns (nescience, natural ignorance)
	Knowledge about the limits of knowledge	Lack of any knowledge: beyond anticipation.

Tabular depiction of the relation between knowledge and ignorance.

-Swarnima Agarwal

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Landing Safely...

Airline insurance is a niche class of business where both the premium base and the customer base are very narrow with a limited number of insureds. Today IATA (International Air Transport Association which is a trade association of world airlines headquartered in Montreal, Canada) consists of only 268 airlines. Fleet Policy of an airline consists, inter alia, of the Hull Section that covers the aircraft under the fleet and Liability Section that covers the airline against legal action from third parties or customers in respect of death, injury or physical damage to property. Fleet policies are extremely broad and the potential exposures are huge. This can be illustrated by looking at maximum agreed values under the Hull section and the limits under the Liability section of a major airline. Fleet policy of a budget airline with a fleet of new generation B737s or A320s consists of Hull Maximum agreed value of USD 80 million and combined single limit under liability section of USD 750 million per occurrence / per aircraft. For a major carrier, these values are as high as USD 250 million and USD 1,500 million respectively. A fleet policy operates as if there is a separate policy for each aircraft under the fleet. And the fleet value of a major carrier can be USD 10 billion or more. Compare this against world airline premium is which is less than USD 1.4 billion! It would be interesting to look at some of the large losses that have impacted airline re/insurance business in the above context.

If we look at the post 1980 scenario (and do not apply any index to loss figures to keep matters simple), there are about 8 losses that have exceeded USD 500 million mark (Hull and Liability sections together):

Kuwait Airways - August 1990

Iraq invasion of Kuwait resulted in settlement of claim under the Hull War Risks covered. The claim amount exceeded USD 550 million.

Swiss Air 2nd September 1998

Swissair Flight 111 (McDonnell Douglas MD-11) crashed into the Atlantic Ocean southwest of Halifax International Airport, about 8 kilometres from shore. All 229 passengers mostly Americans and Europeans and crew aboard the aircraft died. It is learned that the incurred claim figure was just under USD 600 million.

Various aircraft involved in Terrorists attack in USA 11th September, 2001

09/11 cost USD 4.2 billion to aviation underwriters. The magnitude of this event was such that it changed the way aviation underwriters perceived war perils. In an aircraft policy war perils (including allied perils that provide cover against war, terrorism, hijack, malicious damage, strike, riots etc.) are excluded under the Hull and Liability sections of the policy. However, the airline gets the war perils covered by buying a separate Hull War Risks policy that covers aircraft hull and by attaching AVN 52 Clause that writes-back war perils onto the liability section of the All Risks policy. On September 17 2001, all aviation insurers issued a seven-day notice of cancellation of the air transport industry's third party war risk insurance. This action was unprecedented and threatened the shutdown of the entire aviation industry. Post 09/11 scenario, the underwriters started limiting the buy-back of war perils in respect of the third party liability, a practice that has continued till this day. Hence the liability section of the all risks cover issued today is not comparable with such a cover that was being issued in the pre09/11 period.

American Airlines 12th November, 2001

On November 12, 2001, American Airlines Flight 587 Airbus A300-600 flying from JFK Airport in New York to Santo Domingo crashed into the Belle Harbour shortly after takeoff. All 260 people on board the flight were killed along with five people on the ground. The investigation concluded that that the cause of the loss was pilot error involving overuse of the rudder mechanism leading to mechanical failure. The total amount of incurred claim including liability to passengers and third parties was about USD 700 million.

TAM 17th July, 2007

TAM Airlines Flight 3054 Airbus A320-233 was a Brazilian domestic flight from Porto Alegre to São Paulo. The aircraft overran runway at São Paulo during moderate rain and crashed into a nearby TAM Express warehouse adjacent to a Shell filling station. All 187 passengers and crew aboard died as also 12 people on the ground. (Incurred Amount appx USD 550 million)

Air France 1st June, 2009

Air France Flight 447 enroute from Rio de Janeiro to Paris entered an aerodynamic stall and fell into the Atlantic Ocean at killing all 228 passengers, aircrew and cabin crew aboard. (Incurred Amount appx USD 500 million)

Malaysian Airlines 8th March 2014

MH 370 that went missing on 08.03.2014 was a bizarre and unusual incident. This loss has invoked '50/50 Provisional Claim Settlement Clause'. This clause is attached to both 'All risks' and 'Hull War Risks' policies. The clause provides for the 'All Risks' Policy insurers and 'Hull War Risks' insurers to pay 50% of the total loss amount each in advance; in a case where it cannot be resolved within a specified number of days of the occurrence as to which policy is liable. The advance as per the clause is paid by the respective insurer groups without prejudice to their liability. The clause alsoprovides for referralof the matter to arbitration in case the cause of losscannotbeestablished. Dependingupon the reason for loss and/or arbitration decision, either the "Hull All Risks" Insurersor the "Hull WarRisks" Insurerswouldrepay the amountadvanced by the other group of Insurerstogetherwithinterest for the periodconcerned. Understandably, in this case, the matter has gone for Arbitration. By virtue of AVN 52E clause, the passenger liability would fall on the 'All risks' policy. The total incurred amount of loss may be estimated at USD 550 million. Incidentally, this is the largest loss till date for GIC Re with incurred amount at USD 15 million for share.

Tripoli Airport July 2014

Tripoli airport was under attack resulting in Hull losses amounting to approximately USD 500 million that were indemnified under the Hull War Risks cover.

Three out of eight above major incidents, viz, Iraqi invasion of Kuwait, 09/11 and Tripoli Airport; are caused by war and/or allied perils. While increased airport security is unlikely to result in another 9/11, it is also equally important to note that the underwriters have seemingly reduced their exposures on third party liability losses arising out of war terrorism perils by insisting on a sublimit on AVN 52 write-back clause (as explained above). The cause Malaysian Airways loss is still unexplained. Nevertheless, the liability claims in respect thereof would be settled under the 'All risks' cover in terms of AVN 52E. Interestingly, two of the above losses (Kuwait and Tripoli) are entirely Hull losses arising out of war perils, while the other two (9/11 and MH370) involve liability losses arising out of war perils.

We are thus left with four losses that are caused by 'accidents' as envisaged under 'All risks' covers issued to Airlines with maximum amount of loss of around USD 700 million. With technological improvements that have significantly reduced the number of fatal accidents over the years, aviation transport today is considered to be the safest mode of transport. After all, the sum insureds and limits on fleet policies are not as daunting as they seem!

- Sanjay Mokashi

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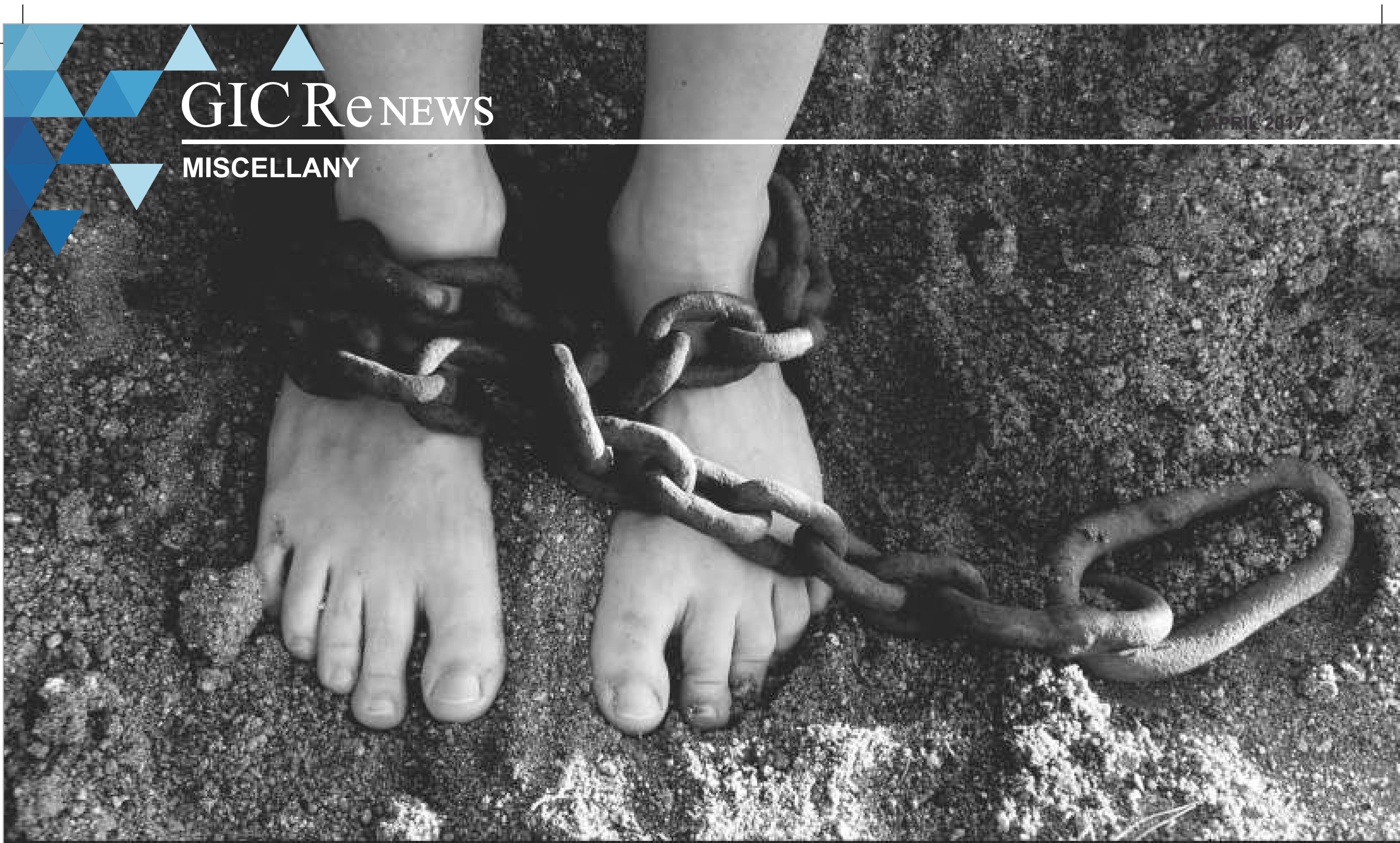

Kidnap and Ransom Insurance

Kidnapping, unfortunately, is one of the fastest-growing organized criminal activities. In fact, kidnappings of foreign nationals increased significantly, furthermore, over 80% of kidnapping cases go unreported because they are not made public. Kidnapping for ransom is endemic in many countries. A large number of multinational companies and NGOs operate in kidnapping hotspots such as Nigeria, Mexico, Iraq, Mali and Colombia. Employers have a duty of care. Many companies today have some form of K&R coverage for their employees. These indemnity policies are primarily tailored to reimburse companies for million-dollar ransom payments should a worker be kidnapped, hijacked or fall victim to a terrorist attack, the employees themselves are often intentionally kept in the dark about the coverage.

From international perspective, Mexico ranks behind only Afghanistan and Guatemala in terms of criminality index. The Criminality Index created by Verisk Maplecroft evaluates the risk to people, businesses and economies caused by violent crime in 198 countries. The index factors in widespread prevalence of organized crime, drug trafficking, kidnapping, extortion and other criminal activities. However, purely from the point of view of kidnapping and ransom, Mexico is believed to top the list.

What are the drivers for K & R Insurance?

- Increasing political unrest in countries is leading to an exponential increase in kidnapping incidents.
- Economic and global exposure to employees around the world is providing a lucrative financial option for kidnappers
- Professional, business and charity workers are the most frequent kidnapping targets (22% of total victims) as they adopt a more adventurous attitude while travelling on work.
- Social media stalking is adopted to examine activity patterns of potential victims to aid in planning their attack.

Scope of Coverage:

A kidnap & ransom policy will provide clients with cover for:

- Ransom reimbursement.
- Cover for relevant additional expenses (including medical and psychological care, temporary security and PR consultancy and legal advice)
- Immediate access to expert response consultants who will assist the client in the negotiation and management of the crisis.
- Financial support for the victim and their family during and post-event.
- PR expenses to help the company repair its image.
- Personal accident costs, Dismemberment or death, Medical care.

However, additionally a company may even provide the following coverage's namely Cosmetic or plastic surgery expenses, time away from work after release, travel expenses, reward money paid to informants and in the worst case scenario funeral expenses.

It is not common but cyber extortion can be bundled with kidnap and ransom insurance. Cyber extortion involves a threat or a series of threats to the Insured for the purpose of demanding ransom monies to damage electronic data by introducing a computer virus. This coverage usually goes with cyber insurance coverage.

The Demand Side:

Majorly K&R policies as they are popularly known are intended for high profile families, NGO's and MNC's, universities with international programs as they are the ones who due to frequent travel, for business or leisure, are more exposed to this risk. "Express" kidnappings are on the rise, unlike the protracted wrangling more familiar to movie goers, this quicker version involves fast, targeted grabs, followed by shorter periods of detention and smaller ransoms.

The security risk environment is evolving rapidly and criminals are employing more sophisticated tactics to seek financial reward. For those operating in the fine art, jewelry and specie sector, one of the most prevalent threats to employees is tiger kidnapping. Tiger kidnapping is a phenomenon that has become more widespread in the last 10 years with incidents taking place all over the world. It differs from the more traditional kidnap for ransom incidents, as the aim is not to extort them directly but to coerce the victim through the threat or use of violence on the immediate family into committing a crime. The cover for a tiger kidnap is available on both a kidnap & ransom policy as well as a specie/ all risks policy and/or jeweller's block.

In respect of the specie/all risks policy and or Jewelers block programs these insure the loss of the goods following a tiger kidnap.

Apart from globe-trotting executives and executives posted in volatile regions, professionals traveling to such regions are quite vulnerable, particularly journalists. As compared to executives, probably journalists make for more attractive targets given that there could be more publicity. During recent times, the kidnap by Islamic militants assume particular significance. Quite possibly within this category of journalists, freelancers are more at risk since they may not have the guidance and support of established organizations. As someone observed: Journalists are no longer just reporting from dangerous front lines, they are the front line for kidnappers.

The digital disruption of print news media has resulted in growing reliance by publishers on freelancers. This transfers the cost from the organization to an individual. While it is possible that the organization arranges with the freelancer to bear certain costs, freelancers usually are on their own in bearing most risks such as missing flight, losing equipment and of course, injury in a volatile region apart from kidnapping and terrorism perils. It is also fact that career aspirations and fame could lead a freelancer to take higher risks.

The Mechanics:

In most cases the perpetrators may demand that the authorities may not be notified. This poses a challenge as the incident needs to be reported for the claim to be notified under a policy. For this reason many K&R policies provide a provision that a policyholder, employer or family may notify the insurance company only once it is safe to do so. Reasons for secrecy also include the potential risk of faked kidnappings targeting covered companies.

After notification, the insurance company deploys specialists to assist in the release of the kidnapped personnel by way of negotiations, delivery of ransom, evacuation and medical/ psychiatric care.

However, the ransom is not paid directly by the insurance company to the insured but, reimbursed after the payment has been made by the insured to the kidnappers. In case the ransom expense go beyond the predetermined limit, the policyholder is responsible for covering the extra costs. As more and more Indian firms have global operations, there have been instances of Indians being kidnapped for ransom payments.

http://www.globalincidentmap.com/beta/kidnapping-for-ransom provides a view of prominent kidnap incidents across the globe.

Though it may sound very reassuring to be refunded for the ransom an individual or corporation has to part with in case of such an exigency, it actually encompasses a huge moral hazard to the insurance company as an individual may fake his own kidnap to extort money under the cover. This is why many employers do not inform their employees of such a cover being taken for them. Then again, if the employee is not aware of him being covered under K&R, his family may not notify the authorities of the kidnapping incident rendering the insurance bought worthless. Thus the information of the existence of this cover needs to be handled sensitively to prevent the abuse and misuse and at the same time ensuring that the purpose for which it was bought does not get compromised.

Trends in K&R:

- The risks with high exposure will continue to pay higher rates per million.
- Demand for higher limits with increased Incident trends and exposure in high risk areas.
- Crisis Management capabilities is of utmost importance, market choice based primarily on capabilities of retained Crisis Management firms.
- Capacity expected to remain stable

Insurance alone will not reduce the risk of kidnapping, but it is the right mix of coverage and crisis management capabilities which will really make a difference in mitigating this risk.

- Surbhi Nilekar

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Team GIC Re at its Performance Review Meetings