

The Role of Cyber Insurance in Indian Insurance Industry

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ABSTRACT

The economic development of the country is possible when the nation takes the responsibility to perform and accountability to check the functions performed by it in a responsible manner.

Digitalization means the process of integration of converting any information in e-format with the help of developed technologies. It changes the business model along with the digital technologies. In this era of digitalization there is a possibility of higher level of transparency because of digital economy. But along with the benefits of digitalization, there is a possibility of cyber risk. When the digital data is accessed by any unauthorized source with the objective of making harm to the individual, group or any company directly or indirectly, physically or mentally by using any modern telecommunication network it becomes cyber-crime. Nation's financial health and security can badly affected by it. So for the purpose of cyber security information technology act has been passed in the year 2000. The cyber laws are there as a mechanism to give punishment to the person who made a cyber-crime.

Cyber insurance is a mechanism which secures the victim of cyber-crime by mitigating and providing the coverage against the losses arising out of cyber risk or cyber insecurity or cyber-crime. IT Act 2000 provides security against cyber-crime by punishing a criminal and IRDA provides mechanism for coverage of loss by cyber insurance.

This paper will helps to understand the role of cyber insurance and awareness of it in the era of digital economy among the participants. This is a fundamental research along with the secondary data sources. I am doing this research to create an awareness regarding cyber insurance in the present scenario.

1. Introduction

We are living in the era of digitalization which has replaced traditional economy of the country. There are many advantages of digitalization like speedy transfer of funds, less time consuming, reduction in transaction costs, transparency, provides new tools which helps to digital marketing etc. But along with the benefits of it there is a possibility of cyber risk. With the demonetization process this risk is increasing day-by-day.

When the digital data is accessed by any kind of unauthorized source by using any kind of modern communication network is become cyber-crime. Cyber-crime can be in the form of hacking, virus diffusion, logic bombs, denial of service attack, phishing, web jacking, cyber stalking, data diddling, identity theft, salami slicing attack etc. It is harmful for the individuals, businesses, Government and development of the country. In the first six months of 2017, there were 27,482 cases of cyber-crime and it was reported for every 10 minutes which was 12 minutes in the year 2016. In the past three and half year our country has seen 1.71 lakhs cases of cyber-crime.

According to the article of Bhargav Das Gupta, cyber-crime leads to cyber risk and as it becomes daily event, corporates and insurance companies should work together to fight against cyber-crime because there is a question of cyber-security. Cyber criminals are punished by the cyber laws. But as a solution for victims who are left out, to manage their cyber risk, to reduce the occurrence of cyber-crime and for the

purpose of cyber security the role and awareness of cyber insurance in Indian insurance industry becomes useful.

2. Objectives

- To understand the concept of cyber insurance
- To indicate the role of cyber insurance in Indian insurance industry
- To know about the current scenario of cyber insurance in India

3. Research Methodology

This is an applied research. The data has been collected on the basis of various secondary sources like websites, journals, books etc. On the basis of collected data and available information the conclusion has been drawn.

4. Literature Review

Shree Krishna Bharadwaj H. (2016) has examined cyber liability insurance in India and its growing need. He has focused on various types of cyber risk in business and reasons behind the cyber accountability insurance. He has concluded that cyber insurance has gained its importance in modern society which is run by computers and technology.

Sasha Romanasky, Lillian Ablon, Andreas Kuehn and Therese Jones (2017), have studied on the paper titled "Content analysis of cyber insurance policies: how do carriers write policies and price cyber risk?" The objective of the study is to examine three main components of cyber insurance

policies: coverage, applications and rate schedules. They have focused on cyber insurance policies, calculation of cyber risk exposure and premiums and insurer's risk etc. for business in united states of America. They have examined that there is a rising need of cyber insurance in insurance industry and concluded that there is no standardization of policy.

Ceareth W. Peters, Pavel V. Sherchenko, Ruben D. Cohen (2018), have studied on the topic of "understanding cyber risk and cyber insurance". They have discussed in detailed about cyber-crime, cyber risk, cyber insurance and some regulatory perspectives on cyber risk and cyber insurance. They have concluded the current scenario of cyber risk classification and its evaluation as well as challenges faced while collecting data for modeling insurance design. They have also highlighted that the challenges faced by industry and a range of different regulatory guidance documents are not yet standardizes as per the requirements.

Mrs. SreemathiRaghuandanAnd Mrs. KalyaniGorti(2018), have studied o the paper titled "cyber insurance- a growing need". The objectives of the study are to understand digital economy as well as cyber insurance and coverage of and to know about the evaluation and awareness of cyber insurance. They concluded that the concept of cyber insurance is felt only in urban developed areas and few business houses. But there is need to create awareness regarding cyber insurance in rural areas.

G. Nikhita Reddy And G. J. Ugander Reddy, have studied on the paper titled "a study of cyber security challenges and its emerging trends on latest technologies". They have focused on challenges faced by the cyber security on latest technologies as well as techniques, ethics and changing trends of cyber security. They have concluded that there is no perfect solution for cyber-crimes but there should be best try to reduce it in order to safe and secure the future in information technology.

5. Analysis part

5.1 Concept of cyber insurance

The concept of cyber insurance was emerged in the year 1990s. To understand the concept of cyber insurance in a meaningful way it is necessary to understand the following terms which are related with cyber insurance.

- Digitalization: Digitalization means the process of integration of converting any information in e-format with the help of developed technologies.
- Digital economy: The economy which is based on digital technologies is called digital economy. It is also known as new economy or web economy or Economy based on internet.
- There are three elements of digital economy:

1. E-commerce: E-commerce includes sale and purchase of goods through internet.
2. E-business: E-business includes the whole business is done through computer mediate network.
3. E-business infrastructure: E-infrastructure includes hardware, software and any telecommunication network etc.

- Cyber risk: Cyber risk means the risk of financial loss, damage or disruption to the reputation of business from some sort of failure of its digital system.
- Cyber security: The protection of digital system of any kind of cyber-attacks like interconnected systems of business which includes digital data, hardware as well as software. Cyber security includes various elements like application security, operational security, network and information security etc.

The above terms are interrelated with each other. As a limitation of digitalization cyber-crime takes place and cyber-crime leads to cyber risk which will result into the question of cyber security.

Cyber insurance is a mechanism which secures the victim of cyber-crime by mitigating and providing the coverage against the losses arising out of cyber risk or cyber insecurity or cyber-crime. It provides following coverage against following cyber-crimes i.e. Information Technology Theft Loss Coverage, Malware Coverage, Cyber Stalking Coverage, Identity Theft Coverage, Social Media Coverage, Media Liability Claims Coverage, E-Mail Spoofing Coverage, Cyber Stalking Coverage, Phishing Coverage, Cyber Bullying, Privacy Breach and Data Breach by Third Party.

Cyber insurance can be hackinsurance, insurance against first party and third party, insurance against criminal cyber event or fraud and theft of data, insurance against extortion, insurance against computer data loss and restoration, insurance against forensic investigation, insurance against business interruption and reputation insurance.

5.2 Role of cyber insurance in Indian insurance industry

In today's world of digitalization, the people are sharing lots of personal as well as financial information through online. More and more people are using smartphones and do various transactions through internet and mobile which can be misused by anyone at any time. India has the largest online market with a wide scope which leads to increases the cases of cyber-attacks and cyber-crimes. So from the view point of financial safety and security, cyber insurance must have included in the financial plan of individuals and businesses. Generally cyber insurance policies are bought by banking and financial services sector but now-a-days it is also taken by manufacturing and pharmaceutical companies. It is not necessary that large scale organizations are the victims of cyber-crime but 60% of small scale businesses have also felt data breach or data destruction which can damage the reputation of the business. If any individual or business is dependent on IT sector and have heavy online transactions, there is need of cyber protection which is provided by cyber insurance.

5.3 Current scenario of cyber insurance in India

The aim of cyber-crime is financial gain through cyber-attacks on individuals and businesses.

As we already know the recent incidents of cyber-attack left Pune based cosmos bank taking rupees 94 crores hit and from the account of union bank of India 171 million rupees was debited through hacking in the year 2017 which was one of the

major incident of cyber-crime. Later this money was retrieved back with the help of government agencies.

As per the data provided by Indian Computer Emergency response team (CERT-In), the cases of cyber-attacks are increasing now-a-days. In the year 2014 there were 44,679 cases reported which was increased to 53,081 in the year 2017.

TABLE: 1

YEAR	CASES OF CYBER ATTACK
2014	44,679
2015	49,455
2016	50,362
2017	53,081

(reddy d. n., 2018)

Along with the cyber-attack the cases of cyber-crime are also increasing. As per the data provided by NCRB (The National Crime Records Bureau), there were 9,622 cases of cyber-crime in the year 2014 which was increased to 12,317 in the year 2017.

TABLE:2

YEAR	CASES OF CYBER CRIME
2014	9,622
2015	11,592
2016	12,317

(reddy d. n., 2018)

India has the second largest online market with a wide scope which leads to increase the cases of cyber-attack and cyber-crime. Netrica consulting India, CyberOps, ALTEN Calsoft Labs, Valency networks and Hicube are the companies which provides services related with cyber security in India.

Bajaj Allianz General Insurance Company Limited, HDFC Ergo General Insurance Company Limited and ICICI Lombard General Insurance Company Limited are the companies of India which offer the service of cyber insurance policies to individuals and corporates at very affordable premium prices starting from as low as Rupees 1000 and going up depending on sum insured and other aspects. After the implementation of personal data protection bills, there is 30% of growth is noticed in the sales of cyber insurance policies.

According to the report provided by the global insurance brokers, there is 25% of cumulative growth in the number of

cyber insurance policies reported over the last 4 years. 70% of the companies have transferred the threat of cyber-attack to the third party insurance companies.

Mostly cyber insurance policies have been bought by many banks and financial service sector companies. But now it is the requirement of manufacturing as well as pharmaceuticals sector also. In 2017, cyber insurance cover was bought by 250 companies including some of the top banks in India.

As compared to the year 2016, there was rise of 50% in the demand of cyber insurance in the year 2017. The size of cyber insurance premium was Rupees 200 crores in the year previous year which is expected to rise to Rupees 400 crores in the next two years. As compare to other insurance products cyber insurance product has relatively small proportion in the insurance industry. But as the cyber-crime is increasing day-by-day, the cyber insurance has wide scope in future in Indian insurance industry.

6. FINDINGS

- Cyber-crime is big emerging issue for the management of cyber risk.
- The proportion of cyber-attacks and cyber-crimes are bound to increase as compare to present scenario in near future which will result into increase in the more demand of cyber insurance policies.
- The growth of digitalization emerged the need of cyber insurance in India which is beneficial to individuals, businesses, government as well as educational institutions also.
- The awareness regarding risk of cyber-crime and cyber insurance is very low in India which is a challenge for insurance companies.
- There is a scope to cover rural areas with more strengthen and secured banking system through cyber insurance.
- Only three companies are providing cyber insurance in India thus other insurance companies should be motivated.

7. CONCLUSION

As a growing challenge of cyber risk, cyber insurance is very useful insurance product and plays a vital role in Indian insurance industry.

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