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## Cyber insurance in India: An overview

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### Abstract

Today India's identity on the world stage is "Digital India". At present, online facilities are available to work in every field, such as banking, insurance, education and health. While there has been an expansion of online facilities in the country, on the other hand, cybercrime has also increased. The rise of cybercrime has provided the opportunity to the insurance industry in the form of cyber insurance. Cyber insurance is one of the fastest-growing sectors at present time. The object of the study was to understand the various aspects of cyber insurance with reference to India. Data and information related to the study have been collected from the website of IRDAI, the Report of the working group to study Cyber Liability Insurance, newspapers and published research papers in various journals. The study found that there is immense potential for the growth and expansion of the cyber insurance market in India due to the rapidly increasing number of internet users.

**Keywords:** Insurance, cyber-insurance, cyber security, cyber liability insurance

### 1. Introduction

With the technological development where the use of personal computers and the internet increased, on the other hand, cybercrime developed as a problem. To overcome the cyber security problem insurance industry developed cyber insurance and in this sequence, the first cyber insurance policy was issued by AIG in 1997<sup>1</sup>.

In India, constructive efforts in the field of cyber insurance were started from the year 2019 by IRDAI. This was the time when India was struggling with the problem of COVID-19 and on the other hand cybercrime is increasing rapidly in the country. The traditional insurance products available in the country were insufficient to provide cyber security, so a working group was formed by IRDAI on 19th October 2020 under the chairmanship of Mr. P. Umesh to study Cyber Liability Insurance. The committee submitted its report in two parts, the first part was submitted on 23<sup>rd</sup> November 2020 and the second part on 30th December 2020, in which it made various important recommendations.

### 2. Cyber Crime

Cybercrime is an activity where criminals steal the business and personal information of other people through computer network devices and misuse this information to commit financial and other types of fraud. Online fraud, phishing, spam email, hacking, online blackmail and other similar crimes come under cybercrime. The data relating to cybercrime in India from the year 2017 to 2021 is shown in table number 1.

**Table 1:** Cases registered under cyber crimes

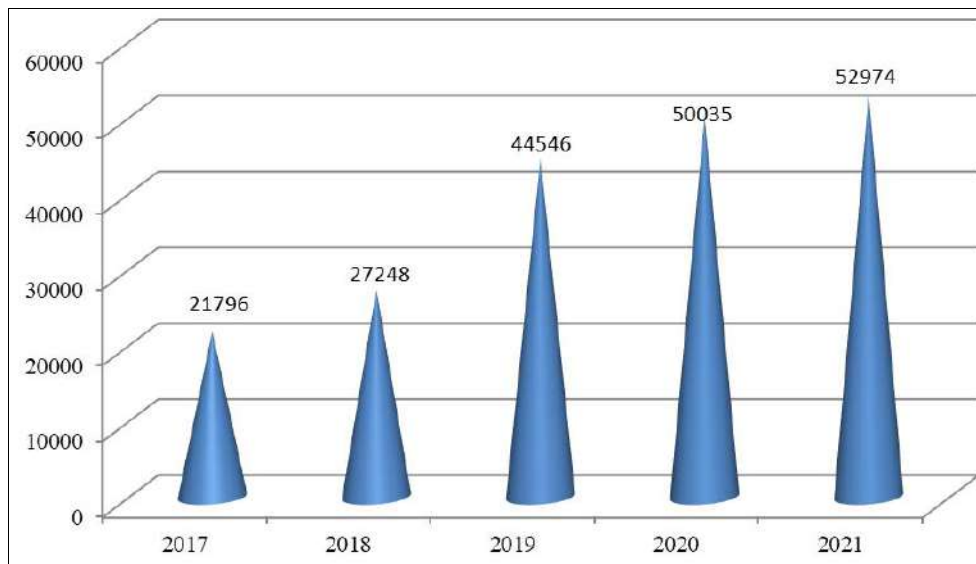
Year	State	Growth Rate	UT	Growth Rate	Total	Growth Rate	Rate of Cyber Crime <sup>1</sup>
2017	21593	77.18	203	56.15	21796	71.44	1.7
2018	27004	25.06	244	20.20	27248	25.01	2.1
2019	44395	64.40	151	-38.11	44546	63.48	3.3
2020	49708	11.97	327	116.56	50035	12.32	3.7
2021	52430	05.48	544	66.36	52974	05.87	3.9

**Source:** <https://ncrb.gov.in/en/search/node/Cyber%20crime>

(<sup>1</sup>Note: Crime Rate is calculated as Crime per one lakh of population.)

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Source: on the basis of data shown in table-1

Chart 1: Cases registered under cyber crimes

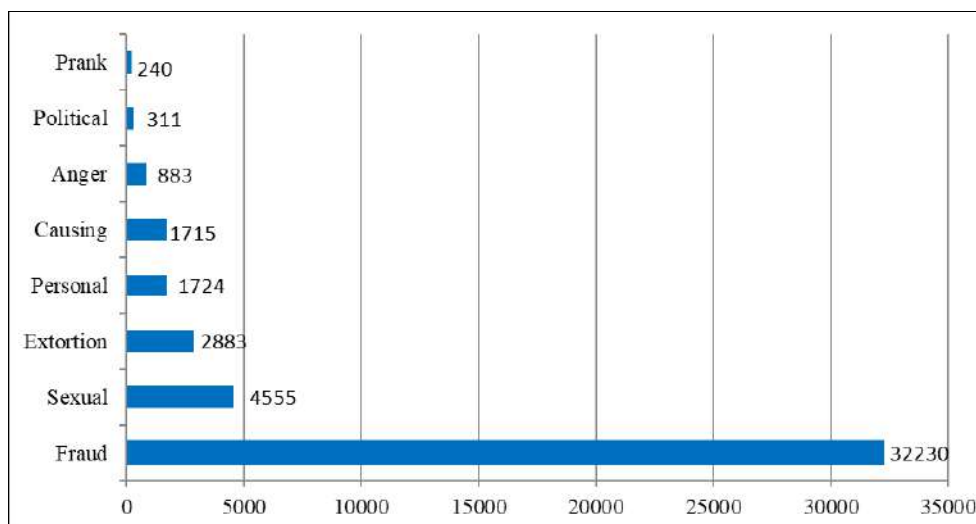
It is clear from table No. 1 that the total number of cybercrimes in the country is increasing every year, in the year 2017, 21,796 cybercrimes were registered in the country, while in the year 2021, this figure increased to 52,974. In the year 2019, India was affected by the COVID-19 epidemic, the other hand; the country was also facing the

problem of increasing cybercrime, as it is clear from the above table that during the year 2019, the total number of cybercrime had increased by about 63%. The positive initiative of the country's government has an effect that the rate of growth of cybercrime has come down in the years 2020 and 2021.

Table 2: Cyber Crime Motives

Year	Fraud	Sexual Exploitation	Extortion	Personal Revenge	Causing Disrepute	Anger	Political Motives	Prank
2017	12213	1460	906	628	1002	714	139	321
2018	15051	2030	1050	794	1212	461	218	296
2019	26891	2266	1842	1207	1874	581	316	1385
2020	30142	3293	2440	1470	1706	822	356	254
2021	32230	4555	2883	1724	1715	883	311	240

Source: <https://ncrb.gov.in/en/search/node/Cyber%20crime>



Source: <https://ncrb.gov.in/en/Crime-in-India-2021>

Chart 2: Cyber Crime Motives

NCRB figures show that there are many motivations in the country to do cybercrime. The data of the year 2021 shows that fraud is a major motivation for committing cybercrimes, about 60% (32230 cases) of cybercrimes go for this

purpose. After fraud, the second main purpose is sexual exploitation, about 9% (4555 cases) of cybercrimes go for this purpose. Thus, it is clear that most of the cyber-crimes in the country are related to cyber fraud, that is, these crimes

are directly or indirectly related to financial transactions.

**3. Cyber Insurance Meaning**

Cyber insurance, also known as cyber security insurance and cyber liability insurance coverage (CLIC), is an insurance product that protects businesses against potential losses caused by cyber-attacks. “It covers expenses arising due to data breaches, cyber-attacks, human error, business disruption, and electronic media claims.”<sup>ii</sup>

Some of the major advantages of cyber insurance are as under:

1. Its main advantage is that it provides security to an organization or individual from cybercrime.
2. Under this, protection is provided from the financial loss that occurs due to the interruption of business due to cybercrime.
3. It provides protection against Cyber Stalking, email phishing, fraud in the transfer of funds and cyber extortion, Malware attacks, Email Spoofing etc.
4. This policy is in line with the spirit of Digital India, this policy can be purchased online and premiums can also be paid online.

This insurance is very beneficial for banking companies, e-commerce companies and insurance companies because these companies store their business-related data online (information related to customers, Debit / Credit card information, PAN card etc.).

**5. Major Cyber insurance provider in India:** At present, many insurance companies are providing cyber insurance services in the country, some of the major companies are as follows:

- i. Bajaj Allianz
- ii. HDFC Ergo

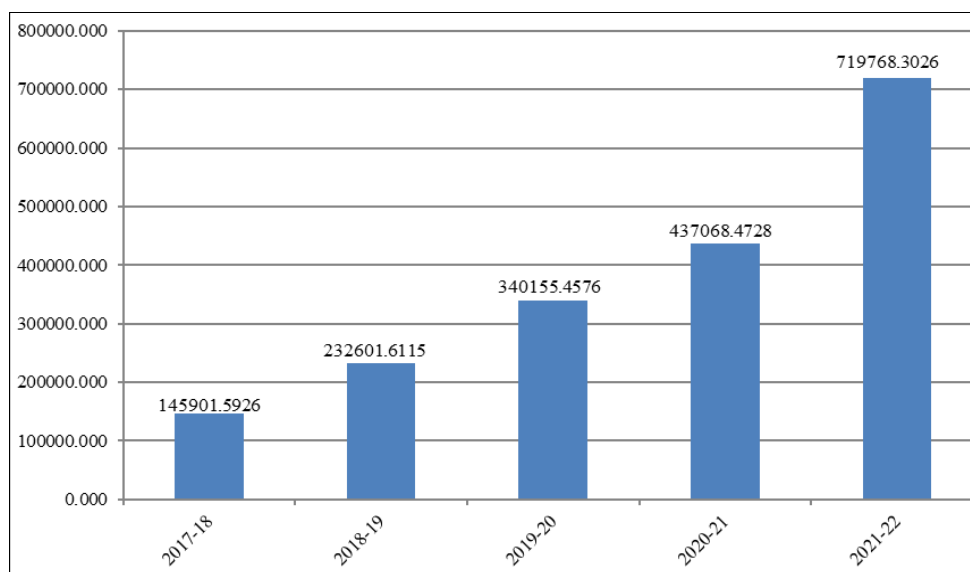
- iii. ICICI Lombard
- iv. National Insurance
- v. Reliance General Insurance
- vi. SBI General Insurance
- vii. Tata AIG

**6. Types of Cyber Insurance:** For the purpose of providing cyber security, at present two types of plans are available:

- i. **Personal Cyber security Insurance Plan** - This plan is useful for consumers who do their day-to-day work online mode. This plan provides protection against activities such as phishing, cyber stalking and credential stuffing etc.
- ii. **Corporate Cyber liabilities Insurance Plan:** “Corporate cyber insurance policy covers your losses and business liability arising out of a cyber-security breach. The policy offers complete insurance protection to your business against cyber or digital risks that can result in a financial loss to the insured and reputational loss to a third party because of a breach in the insured’s systems.”<sup>iii</sup>

**7. Reasons for the development of cyber insurance market:** The main reasons to develop a cyber-insurance market in the country are as follows:

- i. **Increase in digital payment transactions:** It is clear from chart number 3 that there is a continuous increase in the total number of digital transactions in the country, in the year 2017-18 the total number of digital transactions was 145901.59 lakhs, which has increased to 719768.30 lakhs in the year 2021-22, i.e. a period of 5 years the total number of digital transactions has increased by almost 4 times.



Source: on the basis of data extracted from [www.rbi.org.in](http://www.rbi.org.in)

Chart 3: Total Digital Payment Transactions Volume (In Lakhs)

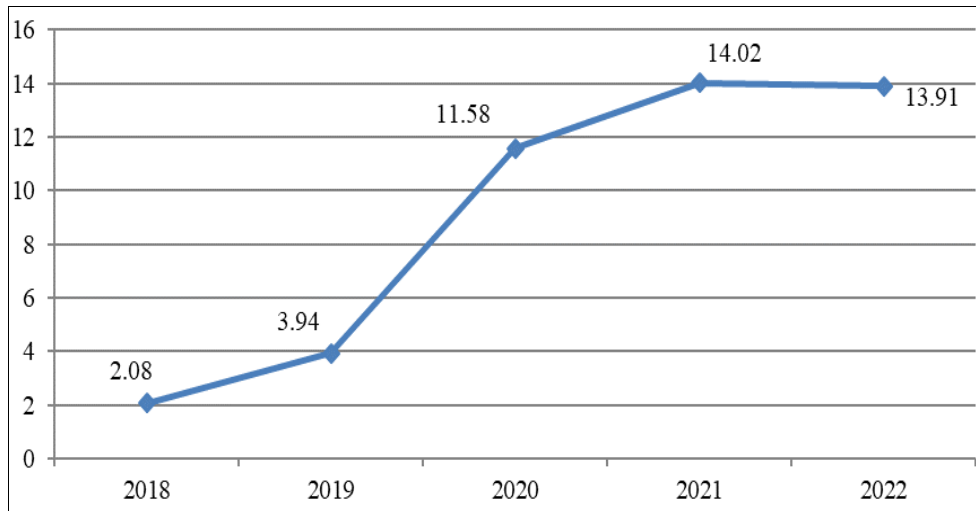
Digital transactions worth Rs. 719768.303 crores were done in the year 2021-22, which was 23.29% more than the previous year. Thus, it is clear that digital transactions are continuously increasing in the country both on the basis of

volume and value. The increase in digital transactions is attracting the attention of cyber criminals, as a result of which cases of cyber fraud are continuously increasing in the country. Increasing cyber fraud cases in the country are

developing the cyber insurance business as a new market.

**ii. Increase in number of cyber-attacks:** One of the major reasons for the expansion of the cyber insurance market in the country is the increase in cyber security

incidents every year. In the year 2018, 2.08 lakhs, 3.94 lakhs in 2019, 11.58 lakhs in 2020, 14.02 lakhs in 2021 and 13.91 lakhs in 2022 Cyber-attacks were made by cyber criminals.



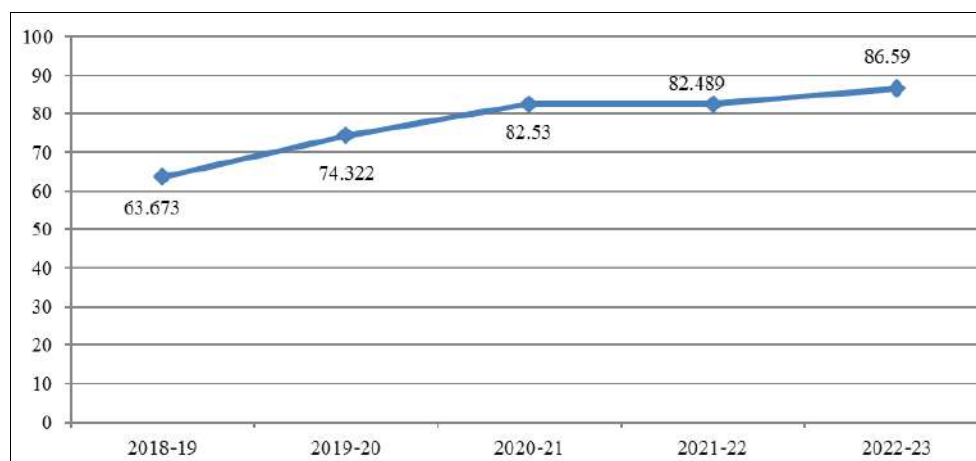
Source: <https://inc42.com/buzz/india-witnessed-13-9-lakh-cybersecurity-incidents-in-2022-govt/>

**Chart 4:** Cybersecurity Incidents in India (in lakh)

As it is clear from the above chart number 1 that the maximum number of cyber security incidents observed in the year 2021, there has been an increase of about 3.53 times in cyber security incidents in the last five years (2018 to 2022). There were 11.58 lakh cyber-attacks in the year 2020, which was 7.64 lacks more than from the year 2019. This was the time when the whole country was facing the COVID-19 pandemic. At the same time, a committee was formed by IRDAI under the chairmanship of Shri P. Umesh to strengthen cyber security in the country, which aimed to study the subject of Cyber Liability Insurance. Therefore, it is clear that increasing cyber security incidents are forcing

the corporate sector and the public to invest in cyber insurance.

**iii. Increase in number of internet users:** India has the second largest number of Internet users in the world after China. The number of internet users in the country is continuously increasing in the last five years (2017-18 to 2021-22) this number has increased by about 36%. Providing cyber security to such a large number of internet users, the country's insurance industry has new opportunities in the way of cyber insurance.



Source: <https://dot.dashboard.nic.in/DashboardF.aspx>

**Chart 5:** Internet Subscribers in India (in crore)

It is clear from the above analysis that the day-by-day increase in the number of digital transactions in the country, frequent cyber-attacks and rapidly increasing internet users in the country etc., provides a huge market for cyber insurance in the country.

**8. Loss Cover Under Cyber Insurance**

a. **First-party expenses:** If due to any cyber-attack the electronic data, software or computer program of the insured person or organization gets corrupted, then in such a situation the cost of restoring it will be borne by

the insurance company. Apart from this, the expenses related to restarting business operations will also be borne by the insurance company.

- b. **Regulatory investigation expenses:** This insurance policy also covers the expenses related to presenting your side in response to the legal action taken by the regulatory authority such as the amount paid to the lawyer or the fine imposed by the regulatory authority etc.
- c. **Crisis Management Costs:** "Forensic Expert Cover including security consultation, Reputation Damage Cover, Legal Costs Cover for matters including notification, coordination with service providers, strategy etc., Credit and Identity Theft Monitoring Cover, Cyber extortion/ Ransomware Cover, Operation of a 24x7 Hotline, Cyber Stalking, Counselling, Information removal and pursuing action."<sup>iv</sup>
- d. **Privacy and data liability:** If the confidential information of the customer or employee of the Insured Party is exposed due to a cyber-attack, as a result of which the Insured Party has to pay compensation to the customer or its employee, such loss may be covered under the cyber insurance policy.

## 9. Challenges

- a. At present, there is a lack of awareness about cyber insurance in the country because businessmen are not aware of the importance of cyber insurance, nor do they have an idea of the risk associated with cyber-attacks.
- b. Some cyber insurance policies do not provide protection from all types of cyber-attacks, so in such a situation, there is a possibility of loss to the business even after taking a cyber-insurance plan.
- c. It is difficult for businessmen to assess the level of cyber risk properly as a result choosing the right policy for the business is a difficult task.
- d. The amount of premium to be paid under the cyber insurance policy is a big expense for small and medium-sized businesses. "Cyber premiums in India have also been rising from 2019-20. The premium of Rs. 50 Crores SI commercial cyber policy rose nearly 20% and costs around Rs. 30 lakhs. The average premium increase for cyber policies has been in the 15%-20%, higher claims and consequent higher reinsurance costs are driving this increase in India, just as with other markets."<sup>v</sup>

In order to face the above challenges, insurance companies need to make consumers aware of the importance of cyber insurance. In addition to this, consumers also need to be informed about the risks associated with cyber-attacks. The current scenario demands that insurance companies bring cyber insurance plans into the market that cover all types of cyber risks at affordable prices

## 10 Conclusion

Increasing e-commerce companies in the country, promotion of online work culture, the rapid development of online education, the advent of online consultation in the

health sector, day-by-day increase in the total number of internet users and promotion of "Digital India" by the Government etc. are many causes to develop India as a big cyber insurance market. Many positive steps have been taken by IRDAI to regulate cyber insurance, which will benefit both companies and consumers working in the Indian insurance market. Efforts are also being made by the Government of the country to educate the general public about the threats related to cyber security, which will benefit the insurance market in the coming times.

## 11. Suggestions

Some of the key suggestions for the growth and expansion of the cyber insurance market in India are as follows.

- a. There is a need to make consumers aware of cyber insurance in the country, for this there is a need to make the consumer aware of the harm caused by cyber risks and how they can be prevented through various communication mediums.
- b. There is a need to bring new innovative cyber insurance products into the markets as per the requirements of the customers.
- c. Third and most important suggestion is that insurance companies will have to control the cost of cyber insurance products so that common consumers can purchase these products.

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