

## An Overview of Performance of the Health Insurance Sector in India – A Conceptual Study

Sonali Sardar

Research Scholar

University of Calcutta

Email ID - [sardarsonali672@gmail.com](mailto:sardarsonali672@gmail.com)

### Abstract

*The health insurance sector has been playing an essential role in enhancing the overall development of the insurance industry in India over the past few decades. Now, satisfactory performance in the medical insurance sector is very much needed to boost the overall activities of the insurance industry. Due to the liberalization of the Indian economy and rapidly rising awareness levels among the people of India, the performance of the health insurance sector has substantially heightened over time. The General Insurance Corporation of India (GIC) and the Insurance Regulatory and Development Authority (IRDA) have organized several awareness programs for all citizens of India that may enhance the general awareness level of medical insurance schemes and decrease the level of uncertainty and insecurity in purchasing health insurance policies. The study's primary aim is to examine the SWOT analysis of the health insurance sector in India and evaluate the level of performance of the health insurance sector. The study also discusses some comprehensive government schemes to provide easily accessible, affordable, and good-quality health benefits to all the residents of India, specifically those who live below the poverty line. The proposed study also concludes that the performance of the medical insurance sector had experienced a steady upliftment in India. The health insurance sector has fostered the insurance industry's overall performance in the last few years. Some Indian health insurance companies have achieved remarkable growth. The Government of India has launched various schemes to provide financial assistance and other benefits to the vulnerable section of society. Using AI tools in medical insurance is essential for companies to survive extra market competition.*

**Keyword:** Health Insurance, SWOT Analysis, Government Health Insurance Schemes, Artificial Intelligence (AI), India.

### Introduction

The medical Insurance sector is becoming a dynamic and innovative service sector in India. This sector has already experienced some potential benefits concerning digitization, heightening the income of the middle class, raising awareness levels in rural areas, and various government schemes that may directly influence the future upliftment of this sector. This industry is in an inaugural phase in India. This industry is exhibiting much potential for future prosperity and continuously adapting insurance coverage benefits for a large population in India. The medical insurance sector has been pivotal in enhancing India's overall insurance industry. It generates around 29% of the overall insurance industry premium income. The insurance sector is growing due to a systematic regulatory framework, need-based product diversification, and favourable government initiatives. This sector is progressively increasing the country's economy (Singh, 2023). Health insurance is an emerging component that offers policyholders financial assistance, including medical, transportation, pre- and post-hospitalization, and surgery-related costs. It is a potential market where a policyholder such as family, individual and group members can purchase their need-based medical insurance coverage, and they need to pay insurance premiums to the insurance companies. Policyholders can claim cashless benefits for their medical treatments or take reimbursement for the cost of medical treatment under the terms and conditions of specific schemes (Singh & Singh, 2020). The Government and regulatory bodies of the country are primarily responsible for providing accessible and affordable medical assistance to all households by offering several medical insurance coverages. The Government of India has introduced

very affordable and good-quality health insurance programs to all residents of India, especially those who are living below the poverty line (Phalswal. et al., 2023). Artificial intelligence (AI) is a very innovative and comprehensive technical method. AI is widely used in various areas, including healthcare, defence and banking. AI is applied to detect structural activities, including lack of adequate professionals, unavailability of quality healthcare facilities, and scarcity of healthcare facilities. (PwC, 2018).

### **Review of the Literature**

Swathi and Anuradha (2017) discussed the theoretical background and overview of the medical insurance sector in India. The Study also demonstrated the functionality of sector-wise and segment-wise health insurance schemes. The Study recommended that IRDA introduce comprehensive initiatives to improve market competition among health insurance companies. The Government of India should commence several awareness programs to announce the benefits of adopting appropriate health insurance policies. Binny and Gupta (2017) explained the current trend in the medical insurance sector in their Study and discussed relevant opportunities and threats. Insurance companies should expand their business activities by launching emerging product innovations in the Indian insurance market. Rodriguez et al (2020) highlighted in their Study the foremost role of AI in the medical insurance sector and how AI can increase the functionality of the medical insurance sector, including consumer satisfaction and faster settlement of claims through the appropriate application of various technologies. The Study emphasizes the theoretical concept of the influence of AI techniques in medical service systems. The Study concluded that AI could improve insurance services in India. AI can also play a role in comprehensive activities in the health insurance sector. Dutta (2020) discussed a detailed overview of the functionality of the medical insurance sector in India and also exhibited the number of management expenses and claims required to earn against the premium amount. The Study concluded that there is an association between expenses and the amount of premium. Singh and Singh (2020) described in their Study the understanding of the current situation of the medical insurance sector in India and focused on the in-depth structure of this sector along with sector-wise and segment-wise performance of the health insurance sector. Phalswal.et al (2023) explained in their Study a detailed overview and benefits of Government funded several health policies that may help the welfare of vulnerable sections of society, including Rashtriya Swasthya Bima Yojana (RSBY), Pradhan Mantri Suraksha Yojana (PMSBY). The Study also suggested that the Government should promote several initiatives and programs to boost the health insurance sector.

### **Research Objectives**

1. To examine the SWOT analysis of health insurance sector in India.
2. To overview the performance of the health insurance sector in India.
3. To discuss the government health insurance schemes that provide several benefits to all the citizens in India.

### **Research Methodology**

The Study is purely descriptive, and relevant data has been gathered from secondary sources only. The data has been gathered from several sources involving the official websites of the Insurance Regulatory and Development Authority of India (IRDA), published journal, newspaper, magazines, different websites, books. The annual reports of the Insurance Regulatory and Development Authority of India (IRDA) from 2018-2019 to 2022-2023 has been analysed and the collected data refers to the performance of health insurance sector in India in terms of health insurance premium, Net incurred claim ratio, claims paid and also state wise, company wise performance of these sector specifically in 2022-2023. To meet the specified objectives of the Study, the researcher conducted some analysis based on the relevant data. Researcher have explored some prominent conclusions based on the Study's findings that may help future researchers in improving the contribution of literature.

**Analysis of the Study**

Based on the study objectives and its significance, analysis has been done by the researcher.

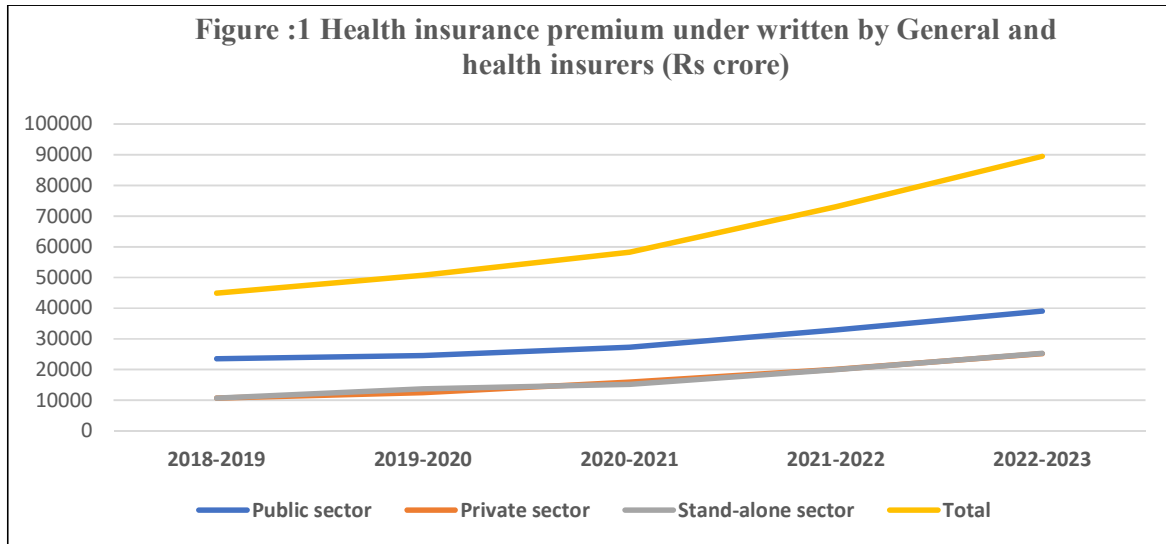
**Objective: 1****SWOT Analysis**

<b>Strengths</b>	<b>Weaknesses</b>
<ol style="list-style-type: none"> <li>1. Due to improve per capita income and the rising new middle-income group of the country, the future performance of the health insurance sector is to be enhanced day by day.</li> <li>2. Nowadays, social media significantly enhances consumers' awareness levels and increases their knowledge about different health insurance schemes through advertisements.</li> <li>3. The Government of India continuously introduces several health insurance schemes or programs to strengthen this sector.</li> </ol>	<ol style="list-style-type: none"> <li>1. Due to inadequate investment in the medical insurance sector, the financial environment of this sector is continuously declining.</li> <li>2. Due to better infrastructure quality, public sector companies engage in more prominent activities than other industry sectors.</li> </ol>
<b>Opportunities</b>	<b>Threats</b>
<ol style="list-style-type: none"> <li>1. Adapting to modern technological infrastructure and using high internet facilities can enhance the future Growth of this sector.</li> <li>2. Various product innovations and other cashless benefits can positively improve the future performance of this sector.</li> <li>3. Health insurance companies try to adopt paperless regimes that directly influence environment-friendly zones.</li> </ol>	<ol style="list-style-type: none"> <li>1. One of the most critical challenges of this industry is the rapidly changing Government policies or regulations.</li> <li>2. Due to the increase in expenses or claims ratio, the extra profit of this industry has gone over the last few years.</li> <li>3. The development of this industry has been adversely affected by the economic recession.</li> </ol>

**Objectives: 2**

<b>Table:1 Health Insurance Premium Underwritten by General and Health Insurers (Rs Crore)</b>					
SECTOR	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Public Sector	23,536	24,632	27,228	32,942	39,058
Growth (%)	-	4.65	10.54	20.98	18.56
Private Sector	10,655	12,391	15,875	20,107	25,182
Growth (%)	-	16.29	28.11	26.66	25.24
Stand-alone Sector	10,681	13,736	15,135	20,001	25,251
Growth (%)	-	28.60	10.18	32.15	26.25
Total	44,873	50,758	58,238	73,051	89,491
Growth (%)	-	13.12	14.74	25.44	22.51

Source: Annual Report of IRDA

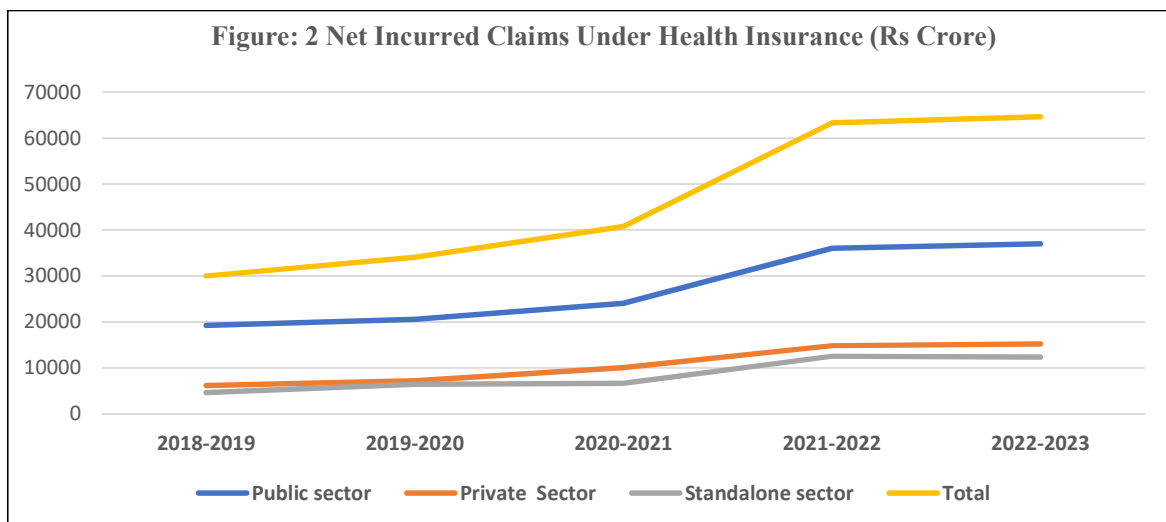


The above table represents the current trend of health insurance premiums for 2018-2019 to 2022-2023. Insurance companies earned Rs 89,491 crore in 2022-2023, and the growth rate of total health insurance premiums followed an upward trend, from 13.12% in 2019-2020 to 22.51% in 2022-2023. The growth rate of public sector companies' health insurance premiums has rapidly increased from 13.12 % in 2018-2019 to 22.51% in 2022-2023. Health insurance premiums of private sector companies have experienced rapid Growth and reached 26.25 % in 2022-2023. In the standalone sector, notable Growth has been exhibited from 28.60% in the financial year 2018-2019 to 26.25% in 2022-2023. The standalone sector has performed well, and its growth rate is high compared to the other two selected sectors. This has happened due to superior marketing techniques and high-quality providers to their policyholders in the Indian insurance market.

**Table :2 Net Incurred Claims Under Health Insurance (Rs Crore)**

Insurers	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Public Sector	19,275	20,559	24,046	36,020	37,020
Private sector	6,158	7,244	10,021	14,845	15,204
Standalone Health	4,593	6,452	6,651	12,496	12,340
Total	30,027	34,057	40,718	63,361	64,631

Source: Annual Report of IRDA



The above table basically scrutinizes the trend of incurred claim ratio (ICR) which is an essential baseline for assessing the functionality of several medical insurance sector in India. ICR mainly delineate the ratio of the insurance company’s net claims payments to its net premiums gathered over a particular financial year. It exhibits how fast an insurance companies can settle their claims. There is exhibit an upward trend of net insurance claims under health insurance, spanning from the year 2018-2019 Rs 30027 crore to Rs 64631 in 2022-2023. In comparison to remining sector, the trend of net incurred claims of public sector has experienced an improvement ranging from 2018-2019 Rs 19275 crore to Rs 37020 in 2022-2023.

Mode of claim	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Only cashless	18,890	22,501	23,296	39,539	45128
Only Reimbursement	14,692	14,314	17,908	27,733	24,653
Both cashless and Reimbursement	1300	2,977	1,537	1,278	706
Benefits based	100	231	611	957	441
<b>Total</b>	<b>34,983</b>	<b>40,025</b>	<b>43,354</b>	<b>69,498</b>	<b>70,929</b>

Source: Annual Report of IRDA

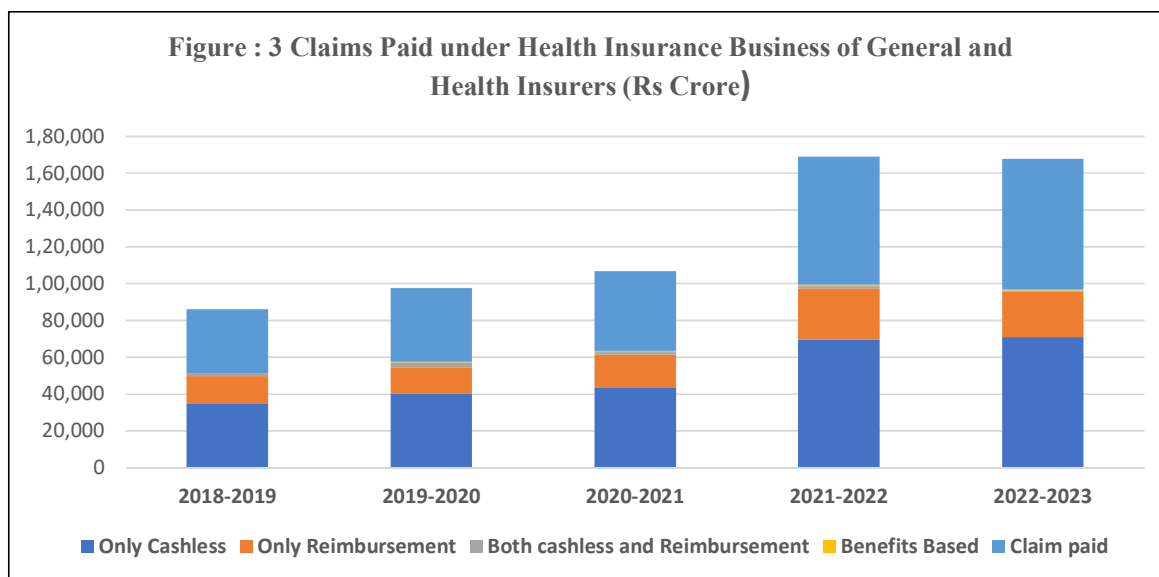
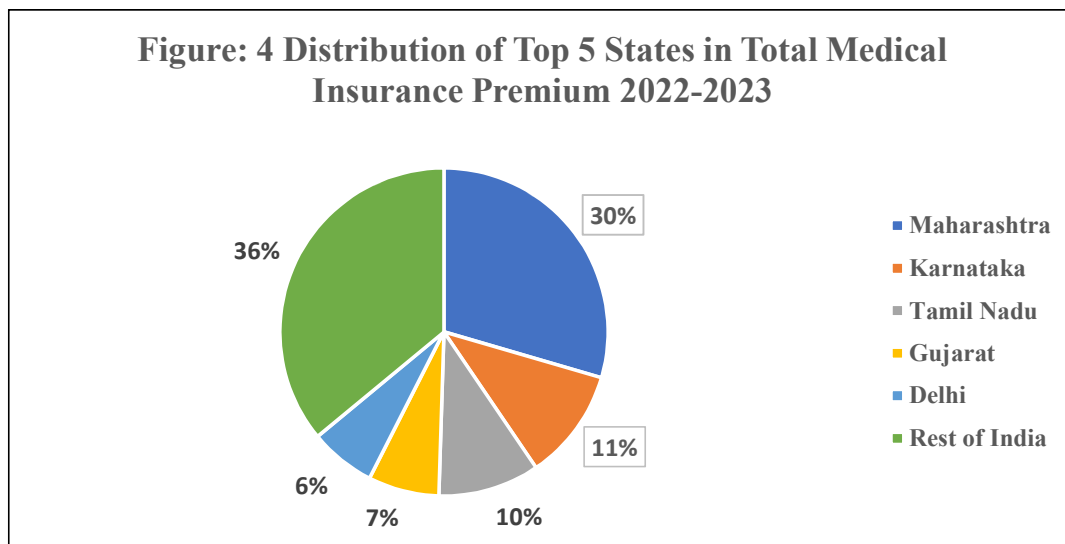


Table 3 and Figure 3 represent the number of claims that have paid under the medical insurance business of general and health insurers ranging from 2018-2019 to 2022-2023. The table mainly explores the different modes of settlement of claims used by companies. Insurers prefer to settle their claims using a cashless method instead of another mode of claim settlement. So, cashless and reimbursement methods are essential and effective to general and health insurers, and the use of both methods has significantly increased during the study period, ranging from 2018-2019 to 2022-2023. Among all the methods, the benefits-based method is adopted a minimal number of times by the insurers. Around 50% or more of total claims have been paid by using the cashless method, and only 4 % to 5% of total claims have been paid through the benefits-based method during the study period from 2018-2018 to 2022-2023.

**Figure: 4 State wise Distribution of medical insurance Premium in India**



Source: Annual report of IRDA (2022-2023)

The study also endeavors to exhibit about state wise distribution of total health premium for financial year 2022-2023. It is mainly highlighting those five states which are leading in India in terms of health insurance premium. The above chart mainly finds out that Maharashtra, Karnataka, Tamil Nadu, Gujarat, Delhi are those top five states in India which are contributing around of 66% of total health insurance premium in 2022-2023 and remaining 36% of total health insurance premium have been contributed by the rest of India.

**Table:4 The performance of health insurance companies for the year 2022-2023**

INSURER	Gross Premium	Direct	Gross premium	Direct Income of Health & Personal Accident	Equity Share Capital of General and Health	Incurred Claims Ratio of General and Health	Solvency position of General & Health	FDI (%)
The New India Assurance Co. Ltd.	37482		17338		824	103	1.87	00
ICICI Lombard General Insurance Co. Ltd.	21025		5592		491	77.33	2.51	00
United India Insurance Co. Ltd.	17644		7682		3905	89.57	(0.29)	48%
HDFC ERGO General Insurance Co. Ltd	16635		5716		712	79.04	1.81	00
The Oriental Insurance Co. Ltd.	15992		8747		4620	130.33	0.96	26%
Bajaj Allianz General Insurance Co. Ltd.	15336		3372		110	74.27	3.91	00
National Insurance Co. Ltd.	15205		7403		9375	102.35	0.29	26%
Tata General Insurance Co. Ltd.	13176		2770		994	78.33	1.94	00
Star Health and Allied Insurance Co. Ltd.	12592		12952		581	65	2.14	00

Reliance General Insurance Co. Ltd.	10339	1560	252	86.31	1.57	
-------------------------------------	-------	------	-----	-------	------	--

Source: Annual Report of IRDA (2022-2023)

In India, so many health insurance companies are running their business successfully. The above table delineates the performance in terms of Gross Direct Premium, no of Equity Share Capital of General and Health, Incurred Claims Ratio of General and Health, Solvency position of General and Health and FDI (%) of the Top 10 medical insurance companies in the year 2022-2023. It may be challenging to compare each other in terms of their performance in 2022-2023. The researcher has selected some of the largest insurance companies for their Study for 2022-2023. The gross direct premium is very high and valued at Rs.37482,21025, 17644 in 2022-2023 for the health insurance companies of the New India Assurance Co. Ltd, ICICI Lombard General Insurance Co. Ltd, and United India Insurance Co. Ltd., respectively. In the case of equity, share capital is very high for three companies, National Insurance Co. Ltd, The Oriental Insurance Co. Ltd, and United India Insurance Co. Ltd., compared to other companies. The highest incurred claims ratio is Rs 130.33 crore for Oriental Insurance Co. Ltd. compared to the remaining companies. Bajaj Allianz General Insurance Co. Ltd., ICICI Lombard General Insurance Co. Ltd, Star Health and Allied Insurance Co. Ltd. and Tata General Insurance Co. Ltd. have powerful solvency positions as compared to other companies and are valued at 3.91, 2.51, 2.14 and 1.94 respectively. Only for United India Insurance Co. Ltd. companies is a negative solvency ratio for 2022-2023. In India, only three companies have engaged from outside (FDI).

### Objectives: 3

#### Government health Scheme

Government of India has been introduced several health schemes for proving benefits to the citizens in India especially poor and middle-income families. The study also discusses about the relevant objectives of the schemes in the below.

Health Schemes	Objectives of the Schemes
1. Ayushman Bharat Yojana	<ol style="list-style-type: none"> <li>1. This scheme provides dynamic need-based health benefits to the poorest families in Indian society.</li> <li>2. This program has started Universal Health Coverage (UHC).</li> <li>3. It has introduced accessible medical facilities in Government and non-government hospitals for poor and middle-income families in India.</li> <li>4. These schemes also offer financial benefits up to Rs.50000 per family for medical- treatment-related expenses, including diagnostic checkups, medicine-related expenses, surgical, transportation, and accommodation expenses.</li> </ol>
2. Rashtriya Swasthya Bima Yojana	<ol style="list-style-type: none"> <li>1. The Government of India has introduced these policies to assist families below the poverty line (BPL) through comprehensive health insurance coverage.</li> <li>2. The scheme's main aim is to protect the vulnerable section of society from extra financial</li> </ol>

	<p>liabilities in case of hospitalization for emergency health treatment.</p> <p>3. RSBY facilities annual health insurance coverage up to Rs 30000 per household.</p> <p>4. This scheme also provides transportation expenses up to Rs. 100 per visit.</p>
3.Pradhan Mantri Suraksha Bima Yojana	<ol style="list-style-type: none"> <li>1. This scheme is a central government-sponsored accident insurance policy.</li> <li>2. It assists insurance coverage for accidental death, permanent disability and partial disability.</li> <li>3. This scheme provides insurance coverage benefits to Indian citizens between 18 and 70. The eligible person can get yearly insurance coverage up to of Rs. 2 Lakh for disability or death and Rs 1 lakh for partial disability.</li> <li>4. Around 16.19 crore Indian people have already been enrolled in 2023 under this scheme, and Around Rs. 13,290 crores have been issued to the policyholder against their insurance claim.</li> </ol>
4.National AYUSH mission (NAM)	<ol style="list-style-type: none"> <li>1. The Indian Government has launched this scheme to provide affordable accessibility to Ayurveda, Homeopathy Yoga, and naturopathy systems to Indian people.</li> <li>2. This scheme contributes financial assistance for improving the infrastructure of the AYUSH sector.</li> <li>3. This policy mainly focuses on the availability and accessibility of AYUSH services in rural areas in India.</li> <li>4. This scheme emphasizes the adequate research and development function in the AYUSH sector and tries to incorporate comprehensive and modern techniques in the health care system.</li> </ol>
5. National Health Protection Scheme	<ol style="list-style-type: none"> <li>1. This national health policy provides financial assistance to vulnerable households in India through yearly health insurance coverage of Rs. 5 lakhs per household.</li> <li>2. This program helps reduce out-of-pocket expenses and provides financial benefits against health care emergencies.</li> <li>3. Pre- and post-hospitalization expenditures have been covered under this policy in the form of transportation expenses, medicine-related expenses, and diagnostic checkups.</li> </ol>



	4. This scheme also provides free treatment to senior citizens in India.
6. Employment state insurance scheme	<ol style="list-style-type: none"> <li>1. This scheme intends to provide medical insurance coverage to all labourers or workers in India.</li> <li>2. The Government of India has mainly designed this scheme to provide several medical care benefits and socio-economic safeguards to all workers and their family members.</li> <li>3. This policy also provides monthly pensions to dependent women who have lost earning ability.</li> </ol>

**The benefit of using Artificial Intelligence (AI) for improving the potential performance of the health insurance sector.**

**1. Faster Settlements of policyholders claims:**

The biggest threat to the health insurance sector is settling medical insurance claims of policyholders on time. This threat may arise due to extensive manual procedures or fraudulent claims. AI can significantly settle all eligible policyholder insurance claims in this critical situation with little time and effort. So, AI can also find fraudulent claims as early as possible based on past historical data to improve the efficiency of this service sector.

**2. Identifying suitable health insurance policies:**

Insurers can easily recognize suitable and required health insurance coverage for a person based on their past performance and existing health situation. Using AI tools, it will be easy to select an appropriate health insurance plan rather than selecting a wrong and inadequate insurance policy that may or may not be helpful to the insurer.

**3. Cost Efficiency**

AI techniques can provide several health insurance facilities, including fraud identification, faster settlement of claims, suitable underwriting, and effective administrative procedures. So, Insurers can get high-quality service and adequately utilize their sources of funds and costs.

**4. Fraud detection**

AI techniques can scrutinize previous claims data patterns that may help identify fraudulent activities and reduce extra financial damage. AI helps meet eligible claims faster.

**5. Faster Underwriting**

Completing the underwriting procedure takes much time. However, using modern technology and A.I. devices, much previous data has been analysed quickly and shared with health insurance companies. Companies can save money and time by using that information efficiently. On the other hand, by using that information, insurers find a new innovative method to underwrite consumers.

## Conclusion

The study shows that the functionality of the medical insurance sector has experienced a steady upliftment in India. The medical insurance sector has fostered the insurance industry's overall performance in the last few years. Some Indian health insurance companies have achieved remarkable Growth in insurance premium income, the value of equity shares, and FDI. The performance of the private and standalone sectors is better than that of public sector companies. However, it is also noted that a significant part of the population of India does not know about the benefits of insurance coverage that Indian insurance companies provide to reduce financial losses from expensive medical treatment. The Government of India has launched various schemes to provide financial assistance and other benefits to the vulnerable section of society. The medical insurance sector in India is challenging and complex regarding data analysis and drawing predictive results from the dataset. AI technology can enhance productivity and upgrade medical treatment. So, AI is continuously playing an essential role in upgrading the health insurance sector by experiencing several modern techniques and devices. Using AI tools in medical insurance is considered essential for companies to survive in the highly competitive environment to achieve market excellence.

## Recommendation

1. In India, the government and other regulatory bodies must launch several universal health insurance policies to serve Indian citizens, especially those in vulnerable societies, through various healthcare benefits at the lowest cost.
2. The health insurance sector in India is in its inaugural phases and has continuously improved its functionality over the last few years. So, companies try to introduce several innovative products and services so that Indian citizens can assess opportunities to adopt these products and services.
3. Companies should provide quality services to meet their consumers' requirements and attract new ones.
4. Introducing innovative products, innovative services, innovative distribution authority and providing appropriate training to their employees are the key players in sustaining a competitive market in India.
5. Using AI technology in the Indian medical insurance sector is a comprehensive and innovative way to settle the work efficiently. Companies should try to adopt this technology as soon as possible.

## References

1. Ahlin, T., Nichter, M., & Pillai, G. (2016). Health insurance in India: what do we know and why is ethnographic research needed. *Anthropology & medicine*, 23(1), 102-124.
2. Ahuja, R. (2005). *Health insurance for the poor in India: An analytical study* (No. 161). Working Paper.
3. Binny, G. M. (2017). Health insurance in India—Opportunities and challenges. *International Journal of Latest Technology in Engineering, Management & Applied Science (IJLTEMAS)*, 6(8), 36-43.
4. Devadasan, N., Ranson, K., Van Damme, W., Acharya, A., & Criel, B. (2006). The landscape of community health insurance in India: An overview based on 10 case studies. *Health policy*, 78(2-3), 224-234.
5. Dutta, M. M. (2020). Health insurance sector in India: an analysis of its performance. *Vilakshan-XIMB Journal of Management*, 17(1/2), 97-109.
6. Ellis, R. P., Alam, M., & Gupta, I. (2000). Health insurance in India: prognosis and prospectus. *Economic and Political weekly*, 207-217.
7. Gupta, H. (2007). The role of insurance in health care management in India. *International Journal of Health Care Quality Assurance*, 20(5), 379-391.

8. Kumar, S. S., & Ramamoorthy, R. (2014). Health insurance market in India—the way forward. *Health and Medical Care Services: Claims on National Resources*, 178.
9. Mavalankar, D., & Bhat, R. (2000). Health insurance in India: opportunities, challenges and concerns. *Ahmedabad: Indian Institute of Management*, 1-16.
10. Phalswal, U., Neeraja, V. K., Dixit, P., & Bishnoi, A. K. (2023). Government health insurance schemes and their benefits to the Indian population: An overview. *National Journal of Community Medicine*, 14(05), 340-345.
11. Rodriguez, R. V., Sinha, S., & Tripathi, S. (2020). Impact of Artificial Intelligence on the health protection scheme in India. *Public Administration and Policy*, 23(3), 273-281.
12. Singh, M. H. AN ANALYSIS OF PERFORMANCE OF HEALTH INSURANCE SECTOR IN INDIA. *Commerce & Management*, 94.
13. Singh, R. R., & Singh, A. (2020). A study of health insurance in India. *International Journal of Management IT and Engineering*, 10(4), 121-134.
14. Sinha, T. (2005). The Indian insurance industry: Challenges and prospects. *Available at SSRN 792166*.
15. Swathi, K., & Anuradha, R. (2017). Health insurance in India-An overview. *IOSR Journal of Business and Management (IOSR-JBM) e-ISSN*, 49-52.
16. <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1922622>
17. <https://www.acko.com/health-insurance/ai-artificial-intelligence-in-health-insurance/>
18. <https://www.eka.care/services/list-of-government-health-schemes-in-india>
19. <https://www.sciencedirect.com/science/article/pii/S2213398420300816>
20. <https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1944287>
21. [https://www.linkedin.com/pulse/how-artificial-intelligence-benefits-health-insurance-hariprakash?utm\\_source=share&utm\\_medium=member\\_android&utm\\_campaign=share\\_via](https://www.linkedin.com/pulse/how-artificial-intelligence-benefits-health-insurance-hariprakash?utm_source=share&utm_medium=member_android&utm_campaign=share_via)
22. <https://www.pwc.com/us/en/industries/health-industries/library/ai-in-healthcare.html>
23. <https://irdai.gov.in/annual-reports>
24. <https://irdai.gov.in/annual-reports>
25. <https://policyholder.gov.in/irdai-annual-reports>.