ARTIFICIAL INTELLIGENCE IN INSURANCE – AN INSIGHT

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ABSTRACT: According to General Insurance Council, India "Indian Insurance sector is going to reach $ 200 billion by 2027 yet struggling with less penetration 3.7% life, 1% Non-life. Other issues like slow claim settlement, fraud risk and timely customer service are adding to the existing problems. These can be addressed with Artificial Intelligence, which is playing a crucial role in all the industries where insurance is not exceptional. By 2026 over 80% of customer service in Indian insurance is expected to be Artificial Intelligence driven. Innovations like video KYC, AI linked wearables and customized policy suggestions already exist. The insurance industry which is rapidly evolving, the integration of it with Artificial Intelligence has made it a new fold game changer. AI in Indian insurance sector is growing due to increased internet penetration, rising digitalization and demand for innovative products. The current state of "detect and repair" to "predict and prevent" is possible only with AI. No doubt Artificial Intelligence is reshaping the insurance sector in India.

The main objectives of the present study are to unveil the role of Artificial intelligence in insurance sector, Artificial Intelligence tools used by Indian Insurance companies, to delve into opportunities and challenges of Artificial Intelligence in Indian Insurance sector.

It is observed that AI enhances satisfaction with faster, transparent claims handling, AI agents filter low-potential leads, improving conversion and reducing acquisition costs, AI is reshaping distribution, pricing and innovation across the insurance value chain. Various AI tools are being used in insurance companies to provide better service and to boost sales in the sector. Opportunities and Challenges involved in the implementation of Artificial Intelligence are delved in the present article.

Keywords: Claims handling, insurance value chain, video KYC, insurance penetration, customized policy services.

INTRODUCTION:

According to General Insurance Council, India "Indian Insurance sector is going to reach $ 200 billion by 2027 yet struggling with less penetration 3.7% life, 1% Non-life. Other issues like slow claim settlement, fraud risk and timely customer service are adding to the existing problems. These can be addressed with Artificial Intelligence, which is playing a crucial role in all the industries where insurance is not exceptional. By 2026 over 80% of customer service in Indian insurance is expected to be Artificial Intelligence driven. Innovations like video KYC, AI linked wearables and customized policy suggestions already exist. The insurance industry which is rapidly evolving, the integration of it with Artificial Intelligence has made it a new fold game changer. AI in Indian insurance sector is growing due to increased internet penetration, rising digitalization and demand for innovative products. The current state of "detect and repair" to "predict and prevent" is possible only with AI. No doubt Artificial Intelligence is reshaping the insurance sector in India.

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- To unveil the role of Artificial intelligence in insurance sector
- Artificial Intelligence tools used by Indian Insurance companies
- To delve into opportunities and challenges of Artificial Intelligence in Indian Insurance sector

The Role of Artificial Intelligence in Insurance Sector

According to Boston Consulting Group (BCG), Artificial Intelligence (AI) leaders generate significantly more value than other companies by focusing on few core areas like underwriting, customer service, claims processing or sales. It is observed that efficiency in complex business lines can be improved by as much as 36% primarily by augmenting manual underwriting process. 3% point loss ratio improvement through better use of data and ability to factor unstructured and previously inaccessive information into underwriting decisions. By focusing their investments, AI leaders extract twice as much value as laggards. Artificial Intelligence and its related technologies will have a momentous impact on all aspects of insurance industry from distribution to underwriting and pricing Artificial Intelligence. Early adopters will gain or regain a competitive edge in innovation and delivery.

Productivity gains of more than 30% from equipping workers with Artificial Intelligence empowered tools. Complex claims with Artificial Intelligence (AI) reduce cost up to 20% and increases in the speed of claims processing as much as 50%. For most simple claims a fully automated end to end process redesignated automated decision making and settlement. Artificial Intelligence (AI) has cut operational costs by 30 to50% and significantly improves customer satisfaction through faster more transparent claims handling

Artificial Intelligence (AI) can efficiently process large volumes of data and AI- assisted agents can deprioritize low potential leads, enhancing conversion rates and reducing customer acquisition costs. The insurance industry has long been built on risk assessment customer service and complex data analysis. Many insurance companies CEOs acknowledge that AI and Generative AI technologies have huge potential for their business as they touch most of the key elements of business. AI models augment accuracy of risk estimation and facilitate in better pricing. AI can also identify false claims more competently. Centralizing data and transitioning outdated systems to cloud architecture is done with AI. Artificial Intelligence (AI) is making human in the loop processes.

indian companies using artificial intelligence (ai) applications

Insurance company	Artificial Intelligence Application
ICICI Lombard	AI chatbot MyRA for instant policy queries and customer support
TATA AIG	Applies machine learning for fraud detection and faster underwriting
Canara HSBC Life Insurance	Offers AI driven chatbots for customer engagement and support
HDFC Ergo	Uses AI bot DIA for real time claims assistance and policy renewals
Bajaj Allianz	Implements voice AI to serve rural customers in regional languages
Max Bupa Health Insurance	Uses AI for health risk assessments and personalized Policy recommendations
Digit Insurance	Uses AI powered underwriting, instant claims processing, predictive analytics in fraud detection,24/7 chatbots

Opportunities and Challenges for Indian Insurance through Artificial Intelligence

Opportunities

- Fraud detection and prevention

AI is a powerful weapon in detecting patterns and anomalies in date helping identify potentially fraudulent activities. This not only safeguards the interest of the insurer but also contributes to maintaining the integrity of the entire insurance ecosystem.

- Improved efficiency through automated processing

AI has dramatically transformed claims processing, enhancing both efficiency and accuracy. By automating routine tasks, AI enables insurers to process claims faster reducing the time from submission to resolution. This

acceleration not only improves customer satisfaction but also decreases operational costs. AI also reduces human errors ensuring more accurate claims assessments and payments.

- Predictive analytics for better decision making

Through historical data analyses and trends insurers can predict future risks and market changes, thereby making them to adapt new strategies proactively. This can be particularly beneficial in the dynamic and evolving Indian insurance market

- Enhanced customer experience

Embeddings can facilitate in identifying similar customer profiles based on their behavior, demographics and interaction history with insurance services. By analyzing these embeddings companies can predict potential risk levels and tailor insurance products accordingly

- Data driven underwriting

AI algorithms can analyze vast amounts of data in real-time, allowing for more precise underwriting decisions. This not only reduces the risk for insurers but also enables them to make more customized and affordable policies to a large range of customers

- Automated claims processing

By reducing manual intervention minimizing errors and speeding up the overall workflow AI-powered automation can streamline processes and facilitate in automated claims processing thereby improving customer satisfaction

- Enhanced product development

Insurance companies no longer follow the one-size-fits-all model. Customers with high risk get a different policy plan compared to low risk customers. AI intelligence insurance algorithms are used to build tools that create customized prices in a few seconds.

Challenges

- Data privacy and security concerns

As per the source of KPMG International it is read that 28% of insurance companies CEOs consider security and compliance issues as highly challenging when AI is involved in the systems. An artificial intelligence system when fed with confidential data to generate reports it leaves a footprint on external cloud servers which would be available to competitors. Therefore privacy of data is lost and leads to ennumber of security issues.

- Regulatory compliance

The source of KPMG International reveals that 52% of insurance companies CEOs believe that there is lack of regulation within the space to implement AI in insurance sector. The insurance industry has a regulatory framework which has stringent rules in order to protect the interests of the policyholders. Implementation of AI requires to adhere to these stringent regulations, maintaining balance between innovation and compliance is very crucial for successful implementation of AI in insurance

- Skill gap and workforce transformation

Adoption of AI technology amongst employees is 34% highly challenging, according to the source of KPMG International report. Implementation of Artificial Intelligence requires skilled personnel capable of implementing and maintaining AI systems, however insurance industry lacks skilled employees and it is a big challenge to attract new talent who has expertise in AI technologies

- Ethical considerations

According to KPMG International 52% of insurance company CEOs consider ethical issues as highly challenging. Ensuring transparency in AI models is very crucial. Ethical considerations must be in the forefront for adopting AI to prevent unintended consequences and to build trust among policyholders

- Integration costs and ROI concerns

According to KPMG International reports 46% of insurance companies CEOs believe it is highly challenging to integrate costs of AI with its returns. Though AI has many advantages the initial costs of integration can be a barrier for companies' particularly small insurance companies. The time it derives benefits and return on investment is one more challenge which bothers most of the insurance companies

To derive the full potential of AI in the insurance sector strategic approach of striking a balance between risks and return is crucial. Prioritizing data security and privacy, Collaborating with regulators, investing in workforce development conducting cost-benefit analysis plays an important role.

Insurers should mind that they do not over strategize the technology, do not get stuck in a tech silo.

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