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INSURANCE 2030 – THE IMPACT OF ARTIFICIAL INTELLIGENCE ON THE FUTURE OF INSURANCE

DEPARTMENT OF COMMERCE - BPS & RM

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ROLE OF ARTIFICIAL INTELLIGENCE (AI) IN INDIAN INSURANCE INDUSTRY

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Abstract

Artificial Intelligence (AI) has become a buzzword in the insurance industry. Artificial Intelligence (AI) is a set of computerized tools designed to achieve objectives that usually require human intelligence. Insurers are using AI to provide better, faster and cheaper services to customers. From a business perspective, AI can be used to conduct operations in a faster, cheaper and more accurate way. AI can help automate labor intensive processes, leading to lower costs and saved time. AI can also be used to understand customers better — companies can use AI to analyze the data they have on customers to predict customer behavior, understand preferences and optimize price and product offerings. AI in India has a lot of potential. Greater adoption of AI in the sector will help streamline the customer acquisition process as well as servicing process. Insurers will be forced to redefine age old processes while customers would find things much easier - like faster underwriting or claims settlement. The advent of technology and growing adaptation of digital usage will lead to a lot of online interactions and claims and AI seems to be the right answer for insurers to provide the best customer service.

Keywords : Artificial Intelligence, machine learning, insurance, chatbots.

Introduction

Artificial Intelligence (AI) has become a buzzword in the insurance industry. Artificial Intelligence (AI) is a set of computerized tools designed to achieve objectives that usually require human intelligence. Insurers are using AI to provide better, faster and cheaper services to customers. From a business perspective, AI can be used to conduct operations in a faster, cheaper and more accurate way. AI can help automate labor intensive processes, leading to lower costs and saved time. AI can also be used to understand customers better — companies can use AI to analyze the data they have on customers to predict customer behavior, understand preferences and optimize price and product offerings.

AI is comprised of many related technologies, some of which are: Machine learning which involves training computers to identify patterns in data and/or predict outcomes. Other AI technologies are applications of machine learning. Machine learning is often used to develop quantitative trading strategies. Deep learning is an application of machine learning where a model can analyze and draw conclusions from data, and solve problems without being trained or given explicit instructions or frameworks. These models learn by themselves. Neural networks in which algorithms are designed to mimic the human brain and recognize patterns in data. They can identify, classify and analyze diverse data, and can find patterns that are too complex for human programmers to write code for. A fun example of deep learning and neural network is Goolge's QuickDraw, a sketching game which uses a massive database of user sketches to accurately guess what you're drawing. Natural language processing helps computers understand, interpret, and respond in written text or speech. This tech is commonly used by chatbots.

Need For Artificial Intelligence In Insurance

Insurance is an old and highly regulated industry. Perhaps because of this, insurance companies have been slower to embrace technological change compared to other industries. Insurance is still steeped in manual, paper-based processes that are slow and require human intervention. Even today, customers are faced with time-consuming paperwork and bureaucracy when getting a claim reimbursed or signing up for a new insurance policy. Customers may also end up paying more for insurance because policies are not tailored for their unique needs. In an age when most of our daily activities are online, digitized and convenient, insurance is not always a happy customer experience.

That said, we are starting to see a global push by insurance companies to augment their technological capabilities so that they can do business faster, cheaper and more securely. In the past few years, there have been some prominent examples of insurers investing heavily in Artificial Intelligence solutions.

Benefits Of Artificial Intelligence In Insurance

McKinsey estimates a potential annual value of up to $1.1 trillion if AI tech is fully applied to the Insurance industry. Of this, the business areas that can benefit the most are:

Sales and marketing

Machine learning can be used to price insurance policies more competitively and relevantly and recommend useful products to customers. Insurers can price products based on individual needs and lifestyle so that customers only pay for the coverage they need. This increases the appeal of insurance to a wider range of customers, some of whom may then purchase insurance for the first time.

Claims Experience

Enabling hassle-free experiences for customers will need to be at the forefront of the change technology will drive. Smart use of AI will help smoothen claims experience and faster claim settlements. From data capture, authorization and approval, payment tracking, legal matter processing to communication management, AI can bring in efficiency in every aspect. We are already seeing Bots being used to review claims, verify policy details, check for fraud and process payments, thereby making the claims process faster and efficient.

Customers Engagement

AI can help mine and process the internal and external data towards creation of personalized product, service and experiences for customers. NLP is helping organizations understand human language, emotions, behaviour and expressions consistently and in real time. The applications of this capability in a business such as Insurance are limitless. With chatbots, customer queries related to their policy, complaints, registering grievances, etc. can be attended to 24×7. The bots can be integrated with various channels such as websites, social media, and others, allowing better engagement and conversation with customers in their preferred mode of communication, to create a more seamless, automated and personalized experience.

Operating Efficiency:

Automating intelligent decision making at scale can be enabled by AI. This will help increase the scalability of all processes. Decisions involved in underwriting, claims adjudications, premium loading, etc. can be executed through a combination of AI and ML, which can lead to tremendous operating leverage for a business. Chatbots using neural networks can be developed to understand and answer the bulk of customer queries over email, chat and phone calls. This can free up significant time and resources for insurers, which they can deploy towards more profitable activities.

Product innovation

The millennial digital-savvy customer demands quick, convenient, pocket friendly solutions to their ever-changing needs. There is a huge opportunity in personalization and efficient use of analytics to bring relevant products to today's consumer. The advent of AI, ML and Big Data will only help insurers to optimally leverage these and build products that are relevant. The availability of data helps better understanding of customers, in identifying behavioral patterns, insights, etc., that further enable designing and offering value-based solutions and engage with customers with personalized solutions.

Fraud Detection and Prevention

AI can help insurers spot unusual patterns and uncover hidden correlations and patterns missed by the human eye, making it useful for detecting suspicious activity or fraudulent behavior. AI can also be used to interpret behavioral cues and look for patterns indicating a potential fraud, to help insurers take steps to mitigate such risks. For eg: a customer filing unusual claims or a sudden spike in claims in a specific segment/ geography, etc. are potential red flags that can be detected with smart deployment of AI. Even video recording of customer's claim narration can be translated using AI as an input towards the veracity of the claim.

Indian Insurance Industry And Artificial Intelligence

Technology has led to many positive changes around us and insurance industry is not staying behind in making the most of the technology to improve their functioning and services to customers. Traditionally, the insurance industry's focus has been around the policy and product but there's now a shift in the trend. The insurers are more and more leaning towards becoming a more customer-centric organisations and Artificial Intelligence (AI) has been at the forefront of this mission.

AI has also been playing a major role in helping the insurers tackle its two biggest challenges — penetration and simplifying the customer servicing at various touchpoints. The insurance continuum starting with marketing to lead generation to quotes to underwriting and the various aspects of servicing a customer has many touchpoints and this where AI can simplify and address routine tasks thus taking the insurer's reach deeper in the market. The industry is using AI to rationalize its operations and connect with the audience in an effective manner. Yet, we must understand that these are still early days for AI in insurance industry in India. Insurers have just started experimenting. Several insurance companies are using AI/Big Data only for their marketing or sales campaign or simple claims handling tasks. Some of the most common usage of AI in India is usage of chatboxes that helps in faster claim processes, providing policy informations, documentations and others.

AI in India has a lot of potential. Greater adoption of AI in the sector will help streamline the customer acquisition process as well as servicing process. Insurers will be forced to redefine age old processes while customers would find things much easier - like faster underwriting or claims settlement. The advent of technology and growing adaptation of digital usage will lead to a lot of online interactions and claims and AI seems to be the right answer for insurers to provide the best customer service.

Future Of Insurance With Artificial Intelligence In India

Given our country has one of the lowest insurance penetrations in the world, insurers find it difficult to reach out to prospective customers at the right time, provide the right set of solutions/products to suit customer requirements and facilitate speedy claims support. When customers interact with an insurance agent, the benchmark is not one carrier vs another anymore but is the expectation of a much faster, more transparent and intuitive experience than one they have had before. Not only is this a tremendous shift in customer mindset, but with artificial intelligence, it has also presented the industry with an opportunity – and the challenge of – an elevated level of engagement. Can artificial intelligence and cognitive technologies live up to the hopes and respond to changing times? Its believed that by following the core technology

trends, tightly combined with AI, will reshape the insurance industry over the next decade.

Some Key Points

1. Data explosion and the situation of the next-billion Indians

India's low insurance penetration, especially in the general insurance industry is not a new story. In close to two decades, India's insurance market has grown about 3%. To try and solve this issue, several distribution channel-level propositions such as insurtech sandbox are being brought into the fray by IRDAI to help the industry reach a larger population. The unprecedented rise of the internet and smart-phone penetration in India over the last five years present both a challenge and an opportunity. On one hand, the resulting avalanche of new data created, allows underwriters to understand their customers more deeply – leading to new product categories, tailored pricing packages and real-time service delivery. For example, small-ticket or bite-sized insurance products have shown improvements in speeding operations after the success of sachet products in the FMCG sector. On the other hand, ethical considerations for data privacy, misappropriation of data, and fraud detection of each customer and extending simple yet valuable experiences continue to be a hot agenda.

2. Distribution & AI-based risk profiling

User experience in the insurance industry is key at the front end. Technologies such as NLP (Natural Language Processing) and intent-driven chatbots have revealed real progress in this regard. RGI, for example, uses RIVA (Reliance Interactive Virtual Assistant), an AI-enabled chatbot on Whatsapp and Facebook messenger to facilitate effortless claim experience, easy access and transparent grievance redressal process. Additionally, to address the concern of accuracy in risk profiling, AI and machine learning technologies are providing in-depth risk, fraud and customer models. This is done by finding hidden risk spots and decreasing the individual's or business' cost of recovery after a tragic impact. One such case is the recent launch of an AI-enabled car inspection feature on an insurance app by a leading General Insurance player towards speeding up renewal and claims processing in motor insurance. That said, we are still at the nascent stages of hyper personalised products coming in to address grievances or

provide a risk profile and quotes in real-time, akin to checking your phone balance.

3. Open source & data ecosystems for faster and accurate claims processing

Over the past few years, embedding AI in processes, services and products has become almost mainstream to deliver an intelligent and customised package, one which attracts a lot of attention and will continue to do so. In insurance, automated claims processing is playing that role to reduce operational cost and provide speedy solutions to customers. This is the model in the open source and data ecosystems that aims for a paperless, error-less and instant claims processes. Simple claims will get approved and paid out in seconds, while the complicated ones get reviewed by the human team.

4. Future is customer centricity, yet challenges remain

AI is here to stay. Underwriting talent is set to work with Robo-partners and adoption of AI to boost performance, and insights are steadily reaching a tipping point. A majority of clients are also comfortable with AI using personal data to improve customer experience, that it is well protected. Then there is AI-bias – a challenge that is created from prejudiced data inputs. A sexism bias, for example, can conduct a varying risk profile for men vs women for motor insurance. The new-age customer of the future demands simpler terms, transparent underwriting and easily comprehensible benefit structures in one simple risk cover – from which they can choose discrete individualized need-based covers. Product innovation in this regard will require unified efforts towards simplifying and connecting to the customer in a hyper-personalized manner like never before.

Conclusion

AI has the potential to transform the insurance experience for customers from frustrating and bureaucratic to something fast, on-demand, and more affordable. Tailor-made insurance products will attract more customers at fairer prices. If insurers apply AI tech to the mountain of data at their disposal, we will soon start to see more flexible insurance such as on-demand pay-as-you-go insurance, and premiums that automatically adjust in response to accidents, customer health, etc. We will see insurance become more personalized, because insurers using AI tech will be able to understand better what their customers need. Insurers will be able to realize cost savings by speeding up workflows. They will also discover new revenue streams as AI-driven analysis opens up new business and cross-selling opportunities. Most importantly, the AI solutions described above can make it easier for customers to interact with insurance companies. This could result in people being more likely to purchase insurance.

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