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

DEPARTMENT OF COMMERCE - BPS & RM

SRI RAMAKRISHNA COLLEGE OF ARTS AND SCIENCE

AVINASHI ROAD , NAVA INDIA, COIMBATORE- 641006

International Level

Virtual Conference On

"Insurance 2030 – The Impact of Artificial Intelligence on the Future of Insurance"

Editor-in-Chief

Dr V PADMANABHAN

DEPARTMENT OF COMMERCE - BPS & RM

SRI RAMAKRISHNA COLLEGE OF ARTS & SCIENCE
Avinashi Road, Nava India, Coimbatore- 641006

29 OCTOBER 2021

Disclaimer

PREFACE

This book intends to publish and out tell the innovative ideas presented in the **One-Day International Level Virtual Conference** on the topic **"Insurance 2030 - The Impact of Artificial Intelligence on Future of Insurance.** The conference is held in connotation with the **Insurance Institute of India and Coimbatore Insurance Institute** on 29 October 2021 at Sri Ramakrishna College of Arts and Science. This book comprises of a spectrum of the experiences of various topics presented in the conference. This spectrum appends in the topics Artificial Intelligence and future Insurance industry.

The main theme of the conference was to establish a virtual relationship between the budding corporates and the scholars who has an aspiring heart in field of Insurance in this digitally transforming era. This conference contained a number of sub themes that could intricate the knowledge on advancement of insurance industry in this digitalized world. The chain that connects people from every nook and corner that plays a role in reducing the risks associated with life and its assets has been presented by the budding competitors.

The human robotic interaction with the artificial intelligence in E-Commerce is the common trend that has become an essential part of every human life and we hope this conference would have helped the strivers to grow wisely and express futuristically.

I express my gratitude to the Insurance Institute of India and Coimbatore Insurance Institute for their sponsorship in this pandemic. I also thank the participants who whole heartly contributed and the editorial board members who shaped their contributions in the form of a book.

I strongly believe that this compilation would be a priceless hand in help for further research in future insurance industrial aspects.

CONVENOR

CHAPTER4 : INNOVATIONS IN INSURANCE INDUSTRY

INNOVATIVE TECHNOLOGIES IN INSURANCE INDUSTRY

Gomathi A., Assistant Professor of Commerce, Nallamuthu Gounder Mahalingam College ,Pollachi.

Abstract

The insurance industry in India has witnessed an impressive growth rate over the last two decades. Insurtech companies have impacted nearly every segment of the insurance business, sparking the development of simpler products and consumer-friendly services. The recent pandemic has emphasized the importance of healthcare on the economy. Digitization has tended to change the level of engagement between insurance companies and policyholders. The options are boundless: a blockchain pilot program, IoT, micro-insurance, robo-advisors, gamification etc, The present research paper aims to explore current scenario of Indian insurance industry, its digital technology and the role of Insurtech companies in digital technology innovations.

Key Words

Insurance Industry, Insurtech, Digitization in Insurance, Technology Innovation in Insurance, Blockchain , IoT, Micro-insurance, Robo-advisors, Gamification....

Introduction

Insurance has always been a valuable option for those looking to protect themselves from potential threats, and the pandemic has even further re enforced the importance of preparing for the unexpected[5]. Pandemics can be short-lived, but the economic impact can be long-term. The impact can be felt across society (socio-economic and behavioral impact on consumer preferences), technology (use of virtual modes regardless of distance), economic (fiscal stimulus packages). Digital means of On-boarding, Underwriting, and KYC process, use of remote sensing, and drone technologies for claims assessment and surveys are expected to increase. The rapid evolution of the industry will be fueled by the extensive adoption and integration of automation, deep learning, and external data ecosystems[3]. While no one can predict exactly what insurance might look like in 2030.

Research Design of the Study

The present paper is an attempt to understand the recent technology innovation made in insurance industry. This study is descriptive in nature. It has been done mainly on the basis of secondary data and information available from the books and published work and reports.

Objectives of the study

The following objectives are reviewed in this study

- To review the current scenario of Indian insurance industry and its digital technology.
- To explore the role of Insurtech companies in digital technology innovations
- To explain the importance innovative technologies in Indian insurance industry.

Insurance Industry in India – Current Scenario

The insurance industry of India has 57 insurance companies 24 are in the life insurance business, while 34 are non-life insurers[1].In India, gross premiums written of non-life insurers reached US\$ 26.52 billion in FY21 (between April 2020 and March 2021), from US\$ 26.49 billion in FY20 (between April 2019 and March 2020)[1].

The general insurance industry is expected to increase by 7-9% in terms of gross direct premium income in FY22, backed by healthy growth from the health and motor segments[1]. In August 2021, the Parliament passed the General Insurance Business (Nationalisation) Amendment Bill. The bill aims to allow privatisation of state-run general insurance companies.

Union Budget 2021 increased FDI limit in insurance from 49% to 74%. India's Insurance Regulatory and Development Authority (IRDAI) has announced the issuance, through Digilocker, of digital insurance policies by insurance firms.

Digital Technology in Insurance Industry

Digital technology can cater to demand more precisely so that customers are no longer obliged to buy elements of a package they do not want. Digital technology is pushing insurers toward new types of business that help consumers mitigate risk rather than simply protect against it.

There are myriad ways of using digital technology to improve value and offer new propositions, such as making purchases simpler and faster, adding fresh elements to a product or service, using data and analytics to make products more relevant, or removing costs incurred by intermediaries.

Insurers' success has always depended upon their ability to analyze data, and thus to price and underwrite policies accurately.

India's Insurance Regulatory and Development Authority (IRDAI) have announced the issuance, through Digilocker, of digital insurance policies by insurance firms[1].The disruption from COVID-19 changed the timelines for the adoption of AI by significantly accelerating digitization for insurers[3].Virtually overnight, organizations had to adjust to accommodate remote workforces, expand their digital capabilities to support distribution, and upgrade their online channels[3].

Role of Insurtech companies in Digital Technology Innovations

A combination of the words insurance and technology, *Insurtech* refers to new insurance technology that improves the customer experience, simplifies policy management, and increases competition[7]. Insurtech is the emergence of new technologies that are transforming the insurance industry, reducing costs for consumers and insurance companies, improving efficiency, and enhancing customer satisfaction[7]. Currently, there are 110+ InsurTech start-ups operating in India[1].

It has been most visible in the personal insurance world, where customer-facing phone apps, auto monitoring devices, and wearable activity tracking tools have allowed consumers to find new benefits from their insurance[7].

Insurtech innovators leverage technologies like AI and data science to reduce the need for repetitive processes and tailor plan options to what each customer needs, streamlining the journey from inquiry to enrollment. Insurtech has enjoyed a steady rise to power as insurance companies work to provide better experiences for their customers[6].

Insurtech companies have made the process of buying all types of insurance easier and more convenient, from consumer products to small business insurance. Customers can research, compare policies, and make a purchase online whenever they want without having to physically visit a local agent[7].

Insurtech companies have sparked innovations in commercial insurance as well, allowing small business owners to shop for multiple types of insurance with one application, saving time and aggravation in the process[7]. It also has been successful in making underwriting (evaluating and pricing risks), claims processing, and asset management more efficient for insurance professionals[7]. InsurTech companies are leveraging Artificial Intelligence (AI) to conquer more ground in today's digital world.

According to S&P Global Market Intelligence data, India is the second-largest insurance technology market in Asia-Pacific, accounting for 35% of the US$ 3.66 billion insurtech-focused venture investments made in the country[1]. Some of the Insurtech companies are

- Next Insurance
- Zipari
- MetroMile
- Corvus Insurance
- Kin Insurance
- Policygenius
- Clearcover
- Lemonade
- Circulo Health
- Bought by Many
- Slice Labs
- Shift Technology
- Cuvva
- Steppie/ WeSavvy
- Knip
- Roost
- Kasko
- Teambrella
- Fitsense
- Friendsurance
- Cocoon

Innovative Technologies in Insurance

There are numerous insurance industry trends and technological innovations can adopt to prevent customer churn and improve the experience for the existing user base. The options are boundless: a blockchain pilot program, IoT, micro-insurance, robo-advisors, gamification etc,

Big data

Insurers use big data in a number of ways. Insurers can use it to: More accurately underwrite, price risk and incentivize risk reduction. Telematics, for example, allows insurers to collect real-time driver behavior and usage data to provide premium discounts and usage based insurance[8].

According to Yes Magazine, the implementation of big data results in 30% better access to insurance services, 40-70% cost savings, and 60% higher fraud detection rates that benefit both customers and stakeholders. We can say that big data has revolutionized the insurance industry for good.

Machine learning Software as a service

Insurers use machine learning to predict premiums and losses for their policies. Detecting risks early in the process enables insurers to make better use of underwriters' time and gives them a huge competitive advantage[9].

Some of the emerging AI use cases for auto insurance include: Predictive cost analytics for claims: Leverage machine learning techniques and data science to estimate the average claims cost per different customer segments. Adjust premiums respectively and manage your cash flow better.

Cloud Usage-based insurance

Usage-based insurance is predominantly applicable to the auto insurance space, though it is slowly gaining momentum in the life and health insurance market as well. A usage based insurance system is comprised of carrier, cloud and client referring to the internet of thing architecture. It described from low sensor level to topmost business model. It makes insurance consumers enjoy discounts or surcharges referring to driving safety standards. It is believable in promising and sustainable owing to safe awareness enhancement for driving safety, reasonable premiums and personalized insurance services for consumers and profit improvement for insurance companies.

IoT

The scope of IoT in Indian insurance market continues to go beyond telematics and customer risk assessment. IoT-connected insurance uses the data from internet-connected devices to improve the understanding of risks. According to Forbes, IoT could help insurers cut the cost of the claims process by 30% and also lower premiums for consumers. Internet of things (IoT) for Insurance companies is being used to streamline field operations, predictive calculate risk, improve customer engagement, keep pace with compliance, and boost competitive advantage. IoT can also be useful in the life and health insurance space. Health professionals are using wearables like smart or implantable devices for patient monitoring, diagnostics, and drug delivery[8].

Gamification

Gamification is the concept of applying game-like elements and techniques to real-world business problems. The concept of gamification has a key role in the insurance industry that demands emotional connect with stakeholders even in this era of digitization[10]. In insurance, this interactive technology is used to motivate the work force and to attract new clients. Gamification is not a very new concept to the insurance industry, with telematics apps having been used for since long to identify and reward safer drivers in case of say auto insurance[11].

Peer-to-peer insurance

Peer-to-Peer (P2P) insurance is a risk sharing network where a group of individuals pool their premiums together to insure against a risk. Peer-to-Peer Insurance mitigates the conflict that inherently arises between a traditional insurer and a policyholder when an insurer keeps the premiums that it doesn't pay out in claims. P2P insurance may also be referred to as "social insurance."[12].

Blockchain

Blockchain is a data structure that enables the creation of a digital ledger of transactions and the ability to share them among a distributed network of computers[13]. Insurance companies which can lead the pack in implementing ledger technology using blockchain. Blockchain has the ability to help automate claims functions by verifying coverage between companies and reinsurers[13]. It will also automate payments between parties for claims and thus lower administrative costs for insurance companies. Blockchain added security and ability to establish trust between entities.

Micro-insurance

Micro-insurance is the practice of providing coverage to low-income households or people with meager savings. The policy compensates for death, injury, fire, illness, earthquakes, and other calamities. Technology has proven to be a huge enabler for microinsurance distribution, especially through mobile telephones. It can be developed platform-agnostic (web and mobile) to make client on boarding, pricing, behavior tracking, marketing, and data mining[14]. Micro-insurance through a blockchain platform, intending to make claim processing practical, fast, and straightforward. It is suitable for small volume of insurance business.

Digital/Roboadvisory

Robo-advisors, artificial intelligence-driven digital platforms, use sophisticated algorithms to automate the guidance process. Human involvement is minimal or non-existent. It is an integral parts of the insurance provider's digital sales channels. Properly deployed robo-advisors can handle routine or repetitive insurance operations that do not need human intervention, like collecting customer data, processing queries,

and even underwriting new policies. This technology could eventually replace brokers and automate most duties, while still offering customer support similar or better than that provided by humans[14].

Conclusion

The insurance industry has been stuck in the past for too long and continued disregard of technological improvements and evolving customer expectations will stymie its growth. Customers are now prioritizing insurers who process claims and address their specific issues as quickly and conveniently as possible. Health insurance would play a critical role in the effort to strengthen the healthcare ecosystem in future, for that purpose above the digital technologies innovation will help the insurance industry in move the next level.

Reference

1. https://www.ibef.org/industry/insurance-sector-india.aspx
2. https://unit8.com/resources/the-impact-of-ai-in-insurance/
3. https://www.mckinsey.com/industries/financial-services/our-insights/insurance-2030-the-impact-of-ai-on-the-future-of-insurance
4. https://www.acko.com/articles/general-info/impact-of-artificial-intelligence-on-the-insurance-industry/
5. https://www.insiderintelligence.com/insights/insurtech-companies-to-follow/
6. https://builtin.com/fintech/insurtech-companies
7. https://www.insureon.com/insurance-glossary/insurtech
8. https://content.naic.org/cipr_topics/topic_big_data.htm
9. https://www.accenture.com/_acnmedia/pdf-84/accenture-machine-leaning-insurance.pdf
10. https://www.mindtree.com/insights/blog/gamifications-role-insurance-domain
11. https://www.lntinfotech.com/wp-content/uploads/2018/06/Gamification-in-Insurance.pdf
12. https://www.investopedia.com/terms/p/peertopeer-p2p-insurance.asp
13. https://www.munichre.com/us-life/en/perspectives/underwriting/blockchain-implications-insurance-industry.html
14. https://blog.dataart.com/the-innovative-approaches-redefining-the-insurance-sphere