Use of AI in Determination and Settlement of Insurance Claim: A Comparative Analysis of India with Other Jurisdictions

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The expanding use of artificial intelligence (AI) in the insurance sector indicates the worldwide digital revolution that is changing numerous industries. The insurance industry is set to undergo a substantial shift as AI algorithms begin to consider risk assessment, claims processing, and client relations. Unprecedented opportunities are starting to present themselves, such as more affordable insurance products, contented insurance customers, and an overall better value proposition for the insurance industry. But AI also makes it harder to uphold the core principles of transparency, accountability, and justice. This paper explores the need to tackle artificial intelligence regulation in the insurance industry with a commitment to fostering innovation and safeguarding the interests of all parties involved in this challenging process. This study places the use of AI by insurers and its potential risks in the larger, dynamic context of regulatory frameworks across different jurisdictions. It also assesses the extent to which legislation addresses matters such as bias and discrimination. AI regulation in insurance involves more than just establishing standards and rules. It is about fostering a responsible, innovative culture; it is about maintaining customer trust, empowering them, and promoting inclusivity.

Keywords: *insurance, artificial intelligence, regulatory framework, jurisdictions, innovation.*

INTRODUCTION

Insurance serves as a safety net against unanticipated life events. An insurance policy is a legal contract between the policyholder and an insurance company to provide the policyholder with financial protection or reimbursement against losses. In an attempt to lower the owner of the policy payment costs, the company pools the risks of its customer base. There are different types of insurance coverage, few are – Health Insurance, Life Insurance, Disability Insurance, Travel Insurance, Pet Insurance, and many more.

Insurance Policies that provide a safeguard against monetary losses triggered through mishaps, injuries, or property damage. Insurance also helps with the financial strain of carrying legal responsibility for any harm or harm done to a third party. Most Insurance companies determine and settle insurance claims and perform some core functions, like underwriting risks, product and pricing, growing shareholders' value, reinsurance, distribution, managing claims, and supporting customers. These are foundational building blocks for an insurance company to perform out of which the most difficult, time-consuming, and costly function is to manage claims and customer support.

CHALLENGES FACED BY INSURANCE COMPANIES IN THE DETERMINATION AND SETTLEMENT OF INSURANCE CLAIMS

A typical claims registration process is data-intensive, demands a ton of paperwork, and repeats itself frequently. These elements are responsible for inadvertent inefficiencies and hinder the evaluation of claims. Furthermore, because the assignment of insurance investigators is largely dependent on their availability, workload history, and geographical location, it is observed that the duty of insurance investigators frequently results in additional inefficiencies. Customer patience is most challenged by claim settlements, even when using the offline branch-led model. It is also an important reason why people are still reluctant to buy insurance, despite a gradual rise in consumer awareness of the product.

Insurers should aim to adopt a faster, analytics-driven approach to claims handling and fully

automate the claims handling processes for clear and simple cases[1].

Reports show that 38% of health insurance companies settle claims in an average of 5 business days, though further delays cannot be ruled out. If no further investigation is needed, insurers are required by IRDAI regulations to settle claims within thirty days of receipt of the documentation[2].

Filing claim forms that lack supporting documentation or are incomplete - Completed reimbursement processing forms need to be filed with copies of your insurance card, medical documents, any required bills, and other necessary proof. The claims can't be established due to the lack of appropriate supporting evidence. Occasionally, customers face significant obstacles due to ambiguous requirements regarding the necessary documentation. A few documents often go unnoticed, particularly in hospital cases where the patient and their family are already under stress. This is susceptible to last-minute problems with claim settlement.

Manually, handling claims is inherently slow and outdated since much time is spent on gathering and preparing data rather than claim analysis, which, if left to Artificial Intelligence (AI), can easily solve the problem.

Providing fictitious information and delaying submitting a claim - When buying insurance, some people fail to recognize how important it is to give accurate information; others deliberately ignore this prerequisite to get a lower premium.

However, this action raises the possibility that these claims will be rejected. Delays in filing a claim result in higher costs for both the insurer and the claimant. If there is insufficient evidence to support the claim, the claimant might be forced to settle for a smaller claim amount, and the insurer will have to devote more time and resources to the claim's investigations.

This can be solved by Artificial intelligence which gathers the information of the claimant from

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[1] Pia Brüggemann et al., 'Claims in the digital age: How insurers can get started' (*McKinsey & Company*, 04 April 2018) <https://www.mckinsey.com/industries/financial-services/our-insights/claims-in-the-digital-age> accessed 08 April 2024

[2] Layak Singh, 'Real Time Challenges in Claim Settlements Faced by the Insurance Eco-System' *The Times of India* (24 April 2022) <https://timesofindia.indiatimes.com/blogs/voices/real-time-challenges-in-claim-settlements-faced-by-the-insurance-eco-system/> accessed 08 April 2024

various sources and scrutinizes them to check whether it is true or false since this model works on real real-time basis there is no scope for delayed submission of the claim.

AI TO THE RESCUE

The definition of AI is not defined. It is an all-encompassing term that encompasses a wide range of concepts and applications, and various people will understand it in different ways. Self-learning applications statistical models and software, in general, are examples.

The ability of a machine to carry out tasks that would typically require human intelligence, such as learning, reasoning, problem-solving, and natural language processing (NLP), is referred to in this study as artificial intelligence (AI). Large-scale data processing for decision-making combined with pattern recognition and analysis to learn and adapt are the foundations of artificial intelligence[3].

Artificial Intelligence (AI) technologies improve human-computer interaction by increasing the human adaptability of information systems. In this way, AI assists insurers in managing claims more efficiently, faster, and with fewer errors.

Insurance companies can leverage intelligent technologies in the following ways to enhance claims management:

To enable:

1. Forecast patterns in the volume of claims;

2. Evaluate claims in advance and automate damage assessment;

3. Utilize richer data analytics to enable automated claims fraud detection;

4. Offer a real-time question-and-answer service for initial notice of loss;

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[3] Ashish Sabharwal A and Bart Selman, 'S. Russell, P. Norvig, Artificial Intelligence: A Modern Approach, Third Edition' (2011) 176(5-6) Artificial Intelligence <http://dx.doi.org/10.1016/j.artint.2011.01.005> accessed 08 April 2024

5. To enhance loss analysis skills[4].

The benefits of AI for insurance

Artificial intelligence (AI) can support the development of societal resilience by helping clients detect and mitigate risks and enabling insurers to expand their product offerings while reducing costs.

The use of AI in the insurance value chain and its benefits for policyholders, insurers, and the general public are examined in this section. It is intended mostly for policymakers who might not have much experience with insurance.

AI can help insurers redefine their value proposition and strengthen societal resilience. An overview of the socioeconomic benefits of AI use in insurance is provided below:

Greater Potential for Risk Pooling: As a result of improved risk assessments, insurers have a better grasp of the hazards. This can enable them to reach newly uninsured populations and offer insurance protection for risks that were previously uninsurable, such as cyberattacks.

Risk Prevention and Mitigation: AI's insights into reducing and minimizing risks can be advantageous to insurance parties.

Reduced Costs Associated with Risk Pooling: AI makes it possible to automate some processes, like as underwriting, claims processing, and risk assessment, to some extent. Both production and costs are reduced as a result. AI can also reduce claims by enhancing risk mitigation and prevention.

HOW THE INSURANCE SECTOR IS EVOLVING DUE TO ARTIFICIAL INTELLIGENCE?

Despite AI's relatively young, insurance companies have been using data for a while. For many years, the insurance business has been largely dependent on data processing and models,

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[4] Silke Genuit, 'How to Use AI in Claims Management' (*Insurance Thought Leadership*, 29 October 2018) <https://www.insurancethoughtleadership.com/claims/how-use-ai-claims-management#%3A~%3Atext%3DAI-related%20technologies%20can%20enable%20higher%20quality%20in%20claims%2Cmachines%20can%20pre-assess%20claims%20and%20automate%20damage%20evaluation> accessed 08 April 2024

primarily for underwriting and pricing risks, resolving claims, and supporting the development of new products. On the other hand, AI enables insurers to leverage old and new data more efficiently.

In the insurance sector, AI application and process digitization are tightly intertwined. The insurance industry's first wave of digitization focused mostly on improving consumer choice and information, expanding the amount of data generated by these processes, and distributing products through online sales channels.

These days, insurers can use AI apps to innovate and make use of the enormous amount of data generated by connected mobile and Internet of Things (IoT) devices, such as wearables. These applications can be categorized into three main categories:

- Translation of text or images;

- Identification of patterns, trends, images, and preferences; and

- Information processing based on content and data-driven decision-making[5].

The first category (text and language conversion) includes NLP, sentiment analysis, text analytics, and speech recognition. Applications of the second type can search for patterns and anomalies in text, images, and data sets before making recommendations. The third set of duties consists of automated underwriting decisions that are supported by data-driven findings.

BENEFITS OF AI

Applications of AI benefit insurers as well as clients: Artificial intelligence has revolutionized numerous industries and fundamentally altered our way of life. This is nowhere more evident than in the insurance sector, where the benefits are so substantial that they have completely upended the fundamentals of business. AI applications are providing customers with an

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[5] Somya Gupta et al., 'Artificial Intelligence Adoption in the Insurance Industry: Evidence Using the Technology–Organization–Environment Framework' (2022) 63 Research in International Business and Finance 101757 <https://doi.org/10.1016/j.ribaf.2022.101757> accessed 08 April 2024

entirely new experience in addition to offering insurers never-before-seen benefits. This is not just innovation; this is a full-fledged renaissance powered by AI.

Improved Value Proposition: threats are no longer just identified and fixed; they are now anticipated and avoided.[6]

A Streamlined Client Experience: AI simplifies the entire insurance purchasing process, from research to acquisition. Chatbots rapidly answer questions and provide round-the-clock client service. Insurance policies can be simple and completely personalized, giving customers a clear course of action.

Freeing Up Creativity: Insurance companies can now create products that were previously unimaginable, such as real-time insurance adjustments and plans that reward safer choices, thanks to artificial intelligence.

Rapid Registration and Claim Processing: AI's ability to expedite procedures and enable quick registration and claim processing is demonstrated by the speed at which claims are handled.

Artificial Intelligence in the Cost of Insurance: Because AI is efficient, insurers can focus on providing value, which increases accessibility to insurance. AI lowers operating costs for insurance companies, resulting in noticeably lower premiums.

LEGAL FRAMEWORK AND CONCERNS

Insurance Laws and Regulations: The insurance business is explicitly covered by a variety of jurisdictions' laws and regulations. The Insurance Act of 1938 and The Insurance Regulatory and Development Authority Act of 1999, for instance, established the legal basis for insurance operations in India, and the Insurance Regulatory and Development Authority of India (IRDAI) is in charge of overseeing these activities (IRDA Act, 1999).

Regulations for Data Protection: These guidelines are crucial for managing the collection,

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[6] Ramnath Balasubramanian et al., 'Insurance 2030—The impact of AI on the future of insurance' (*McKinsey & Company*, 12 March 2021) <https://www.mckinsey.com/industries/financial-services/our-insights/insurance-2030-the-impact-of-ai-on-the-future-of-insurance> accessed 09 April 2024

usage, and storage of private data that is needed to process insurance claims. In India, The Digital Personal Data Protection Act 2023 regulates the processing of personal data and sets standards for fiduciaries and data processors. An Act to permit the processing of digital personal data in a manner that upholds people's right to privacy protection and the requirement that the data be used for legal purposes, as well as those that are incidental or linked to those intended uses.

Laws protecting Consumers: These regulations uphold the rights of policyholders and ensure fair treatment. Customers in India now have avenues to raise complaints against insurers and other service providers thanks to The Consumer Protection Act, 2019[7].

INDIA'S POSITION IN THE REGULATION OF AI

There are currently no explicit laws, statutory standards, or rules that specifically limit the use of AI in India. To guide various stakeholders towards the proper management of AI in India, a regulatory framework for the technology must be established.

There are several frameworks tailored to particular industries that can be used to build and apply AI[8]. In January 2019, SEBI sent a circular to stockbrokers, depositories, recognized stock exchanges, and other depository participants in the financial industry that outlined reporting rules for AI and ML systems and apps that are used and offered.

The National Digital Health Mission (NDHM) strategy states that standards and norms need to be created to ensure the reliability of AI systems in the healthcare industry. The Ministry of Electronics and Information Technology (MEITY) suggested on June 9, 2023, that AI might be regulated similarly to other emerging technologies to protect Indian internet users from damage. According to MEITY, existing systems are task-oriented, devoid of human reasoning and thinking, and not intelligent enough to threaten the loss of jobs to artificial intelligence

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[7] Consumer Protection Act 2019, s 2

[8] 'Reporting for Artificial Intelligence (AI) and Machine Learning (ML) applications and systems offered and used by Market Infrastructure Institutions (MIIs))' (*SEBI*, 31 January 2019) <https://www.sebi.gov.in/legal/circulars/jan-2019/reporting-for-artificial-intelligence-ai-and-machine-learning-ml-applications-and-systems-offered-and-used-by-market-infrastructure-institutions-miis-_41927.html> accessed 09 April 2024

immediately[9].

POSITIONS ON AI REGULATION IN THE UNITED STATES, EUROPEAN UNION, AND CHINA

EUROPEAN UNION (EU): In April 2021, the European Commission proposed the first artificial intelligence (AI) legal framework for the European Union (EU[10]).

The AI Act defines an artificial intelligence system (AI system) as a machine-based system that is designed to operate with varying levels of autonomy and that can, for explicit or implicit objectives, generate outputs such as predictions, recommendations, or decisions that influence physical or virtual environments. The AI Act would regulate all autonomous technologies. Artificial intelligence (AI) systems are defined as a large class of automated decision-making tools that include algorithmic tools, machine learning, and logic.

This is the first comprehensive regulatory framework for AI and is part of the EU's goal to set worldwide standards for technology regulation. For the final form of the law on June 14, 2023, the European Parliament recently adopted its negotiation position on the proposed AI Act between the European Commission, the Council of the European Union, and the European Parliament. An agreement is intended by the end of this year[11]. The second half of 2024 is the earliest time that operators that have finished the initial conformance testing and have the standards ready may find themselves governed by regulation[12].

The AI Act aims to ensure the security of AI systems used in the EU market as well as their compliance with existing EU values and laws about fundamental rights. The AI Act recommends using a risk-based approach to guide the use of AI in both the public and private sectors. The AI Act defines three risk categories: applications that aren't expressly forbidden, applications with unacceptable risk, and high-risk applications. The law prohibits the use of AI

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[9] Gulveen Aulakh, 'India Will Regulate AI to Ensure User Protection' *Mint* (09 June 2023) <https://www.livemint.com/ai/artificial-intelligence/india-will-regulate-ai-to-ensure-user-protection-11686318485631.html> accessed 09 April 2024

[10] 'EU AI Act: First Regulation on Artificial Intelligence' (*European Parliament*, 08 June 2023) <https://www.europarl.europa.eu/topics/en/article/20230601STO93804/eu-ai-act-first-regulation-on-artificial-intelligence> accessed 09 April 2024

[11] 'AI Act' (*European Commission*) <https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai> accessed 09 April 2024

[12] EU AI Act: First Regulation on Artificial Intelligence (n 10)

in critical services that could jeopardize people's livelihoods or encourage disruptive conduct, but it allows the technology to be used in other sensitive sectors, such as health insurance, as long as it is implemented with the highest safety and efficacy standards.

USA: Seven of the leading AI firms, including Microsoft, Google, Meta, OpenAI, and OpenAI, reportedly committed to a series of voluntary actions during a meeting with President Biden at the White House. These steps are meant to assist in managing the threats that AI and the ensuing new technology pose to society. The measures, which include independent security testing and transparent reporting of capabilities, were prompted by recent worries about artificial intelligence raised by certain experts. The United States is just beginning what is expected to be a long and difficult journey toward the creation of laws to monitor a sector that is growing faster than lawmakers often have time to take action.

China: In China, restrictions on non-governmental organizations' use of AI are spreading. The Chinese Personal Information Protection Law (PIPL), which became operative on November 1, 2021, addresses data portability [13]this prohibits the use of artificial algorithms to determine prices in a discriminatory manner. Furthermore, the Chinese government is developing laws based on AI ethics[14]. Later in 2023, new rules safeguarding AI applications requiring human interaction came into force. These laws give authorities the authority to ask firms for documentation and an explanation in exchange for the source code. This legislation incorporates several ethical values, such as autonomy, security, justice, fairness, and human centricity[15].

CONCERNS AND RISKS RELATED TO AI

The rapid development of AI has prompted legislative and regulatory efforts aimed at

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[13] Alexa Lee et al., 'Seven Major Changes in China's Finalized Personal Information Protection Law' (*Digi China*, 15 September 2021) <https://digichina.stanford.edu/work/seven-major-changes-in-chinas-finalized-personal-information-protection-law/#:~:text=Below%2C%20we%20discuss%20changes%20included,large%20and%20small%20data%20handlers.> accessed 25 March 2024

[14] Karen Day, 'China unveils AI ethics code' (*Global Government Forum*, 08 October 2021) <https://www.globalgovernmentforum.com/china-unveils-ai-ethics-code/> accessed 19 March 2024

[15] Ashyana-Jasmine Kachra , 'Making Sense of China's AI Regulations' (*Holistic AI*, 12 February 2024) <https://www.holisticai.com/blog/china-ai-regulation> accessed 25 March 2024

addressing problems and lowering the risks connected with its use for the protection of consumers and society.

Threats to Justice, Bias, and Indirect Discrimination: This section makes use of information about the risks artificial intelligence poses to objectivity, prejudice, and discrimination. One benefit of AI systems is their ability to identify patterns in data.

Correlations between training and fresh data are utilized to generate predictions. Intentional or not, bias, errors, or inconsistencies in the training data of an AI model will manifest itself in the model's output. Most people agree that algorithms become increasingly accurate at predicting outcomes as they process more data.

A larger data collection may contain many correlations, but not all correlations point to causality. No matter how big, the data set is still just a picture of reality. Certain associations that have been found might potentially be undesirable since they represent proximate indirect discrimination. Even if AI technologies are neutral, applying them to the insurance sector could raise issues with discrimination, and as we know Article 15 of The Indian Constitution[16] prohibits discrimination. It's our fundamental right.

It's important to note that these issues are created by the underlying data and methods used in AI systems, not by the technology itself. When someone is treated differently because of a protected class or characteristic—such as gender, sexual orientation, or religion—that is discrimination. This is prohibited in a lot of places. Inadvertently, they can serve as stand-ins for protected groups when traits are employed to distinguish across groups. We refer to this as a proxy or indirect discrimination.

Crucially, discrimination and biased decision-making can occur in processes carried out by humans due to deeply rooted human prejudices (conscious or unconscious), which can be difficult to recognize.

Because of this, utilizing technology—including artificial intelligence (AI)—can reduce the

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[16] Constitution of India 1950, art 15

likelihood that processes that solely rely on humans would have inherent bias. To avoid indirect discrimination, rating criteria might be subjected to a three-pronged test. This establishes if the criteria used are suitable, required, legitimate, and pertinent to the risk being evaluated. Even if rating elements that are used in conjunction with standard actuarial methods can meet this criterion, utilizing AI to combine many rating factors in different combinations makes manual assessment challenging[17]. It is difficult to define since fairness is a dynamic, arbitrary idea that varies over time, between cultures, and across geographies[18].

Differentiation, which is a crucial part of the insurance business model and involves charging policyholders risk-commensurate rates, must be distinguished from discrimination[19].

An essential part of this strategy is actuarial fairness, which ensures that customers with the same risk are charged the same amount[20]. Risk factors that the insured has some degree of control over, including driving habits, serve as the foundation for the difference.

In the insurance market, differentiation is sometimes mistaken for discrimination, but the two are very different. When someone is treated differently due to something illegal—like their sex, sexual orientation, or ethnic origin—that is discrimination. These are uncontrollable circumstances.

AI has the potential to enhance the underwriting process by exposing previously undiscovered facts and relationships. However, it is important to note that these types of activities are subject to anti-discrimination laws and regulations, which set standards for insurers' conduct in this domain. Actuarial fairness and societal acceptability might inadvertently clash if artificial intelligence finds certain links. AI might, for example, demonstrate that eating vegetarianism

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[17] 'Artificial intelligence governance principles' (*European Insurance and Occupational Pensions Authority*, 20 September 2021) <https://www.eiopa.europa.eu/media/events/artificial-intelligence-governance-principles-2021-09-20_en> accessed 19 March 2024

[18] Isabelle Flückiger and Kai-Uwe Schanz, 'Responsible Use of Data in the Digital Age: Customer expectations and insurer responses' (*The Geneva Association*, 03 October 2022) <https://www.genevaassociation.org/publication/new-technologies-and-data/responsible-use-data> accessed 19 March 2024

[19] Saurabh Jha, 'Punishing the Lemon: The Ethics of Actuarial Fairness' (2012) 9(12) Journal of the American College of Radiology <https://doi.org/10.1016/j.jacr.2012.09.012> accessed 19 March 2024

[20] Antonio J. Heras et al., 'what was fair in actuarial fairness?' (2019) 33(2) History of the Human Sciences <https://doi.org/10.1177/0952695119856292> accessed 19 March 2024

lowers the chance of contracting specific diseases.

It's interesting to note that one of the benefits of AI is its ability to methodically 'ask' a wide range of questions, even if it's unlikely that humans will ask questions about this or draw such a connection[21].

Data: Several steps are being taken by insurance companies to lessen data-related issues. When asked, insurers said they carefully check and clean data to ensure accuracy and completeness. Limiting the quantity of data points fed to AI systems, some people are minimizing bias in the algorithms by figuring out whether the data points represent a protected class and removing potentially biased information. Pre-data-processing approaches are less effective at preventing discrimination based on other variables that can be used as a stand-in for a protected class, even though they can help stop discrimination based on certain characteristics[22]. As a result, insurers are also putting in place robust data governance frameworks and assigning certain employees within the organization to be in charge of monitoring and reporting[23]. Maintaining impartiality and avoiding prejudice are crucial for keeping clients' trust. As such, insurers must protect the information they collect and be transparent about how they use it. Crucial elements of the proper application of data are:

- Safe data storage and protection against unauthorized access.

- The data's resistance to errors, abnormalities, and quality variances.

- The subject's agreement is for their data to be collected and used.

- Conformity to socially and culturally accepted standards for model outputs utilized in

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[21] Matthew Hutson, 'When AI asks dumb questions, it gets smart fast' (*Science*, 19 September 2022) <https://www.science.org/content/article/when-ai-asks-dumb-questions-it-gets-smart-fast> accessed 19 March 2024
[22] 'How insurers can mitigate the discrimination risks posed by AI' (IIMD, 18 July 2022) <https://www.imd.org/ibyimd/innovation/how-insurers-can-mitigate-the-discrimination-risks-posed-by-ai/> accessed 19 March 2024
[23] Benno Keller, 'Promoting Responsible Artificial Intelligence in Insurance' (*The Geneva Association*, January 2020) <https://www.genevaassociation.org/sites/default/files/ai_in_insurance_web_0.pdf> accessed 19 March 2024

forecasting, risk assessment, and decision-making.

- Honest dialogue regarding the variables influencing choices and their outcomes.

HOW DO VARIOUS NATIONS NOW REGULATE THE RISKS INVOLVED WITH ARTIFICIAL INTELLIGENCE?

This section examines the extent to which artificial intelligence (AI) is used in insurance concerning current laws and regulations. We focus on a select few significant insurance markets and consider the concerns related to bias and discrimination, transparency, human oversight, and data privacy.

An examination of current regulatory legislation in INDIA, the EU, the US, and China shows that several statutory and regulatory procedures, both inside and outside the insurance industry, efficiently handle these risks. Key phrases include:

Anti-discrimination Measures: Article 15 of the Indian Constitution[24], the EU's Racial Equality Directive[25], several federal and state laws in the United States and Australia, as well as other legal frameworks, prohibit discrimination based on ethnic origin.

Protections for gender equality include the EU's Gender Directive[26], The Indian Constitution from Article 14 –18[27], which mentions the right to equality, and several state-level laws in the US that prohibit gender discrimination.

Consumer-centred Regulations: Several regulatory measures require insurance products to be customized to meet the needs and preferences of customers, such as to ensure that the life insurance market in India remains strong, open, and customer-focused, the Insurance

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[24] *Ibid*

[25] 'Council Directive 2000/43/EC of 29 June 2000 implementing the principle of equal treatment between persons irrespective of racial or ethnic origin' (*EUR Lex*) <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32000L0043> accessed 19 March 2024

[26] 'European Commission, EU action to promote gender balance in decision-making' (*European Commission*) <https://commission.europa.eu/strategy-and-policy/policies/justice-and-fundamental-rights/gender-equality/equality-between-women-and-men-decision-making/eu-action-promote-gender-balance-decision-making_en> accessed 19 March 2024

[27] Constitution of India 1950, arts 14-18

Regulatory and Development Authority of India (IRDAI) provides support[28]. The Insurance Distribution Directive (IDD) Article 20[29] mandate is enforced in the EU and the UK by IDD Article 24[30], which lays out standards for product regulation and supervision. In terms of underwriting standards, terms, and rates, discrimination on the grounds of race, religion, nationality, ethnic group, and, in some cases, sex, marital status, occupation, and place of residence between individuals of the same class and hazard is prohibited by the NAIC Unfair Trade Practices Act in the United States. China's Measures for the Regulation of the Internet require companies to respect customers' sincere intentions to purchase at every stage of the sales process to safeguard their right to choose[31].

TRANSPARENCY AND DATA HANDLING

A perceived lack of transparency in AI systems, combined with worries about the kind and quality of data used as input for AI models, has raised questions about justice and discrimination in AI applications.

A multitude of data governance regulations apply to the insurance industry, and various legislative frameworks highlight the importance of transparency. Crucial phrases consist of:

1. Conditions for impartial product information Insurance companies are required by laws such as the Consumer Protection (Direct Selling) Rules of India and also Section 38 of The Consumer Protection Act, 2019[32], EU's IDD Article 20 of 2021 to provide clients with unbiased

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[28] 'IRDA regulatory measures that have impacted Life Insurance' (*Acko*, 02 May 2024) <https://www.acko.com/life-insurance/irda-regulatory-measures-that-have-impacted-life-insurance/> accessed 02 May 2024

[29] 'Draft Implementing Technical Standards concerning a standardised presentation format for the Insurance Product Information Document of the Insurance Distribution Directive' (*EIOPA*, 07 February 2017) <https://www.eiopa.europa.eu/system/files/2019-04/draft_implementing_technical_standards_on_the_insurance_product_information_document.pdf> accessed 19 March 2024

[30] Directive 2016/97/EU - Insurance Distribution Directive (IDD), art 24

[31] Justina Zhang, 'China New Internet Advertising Regulation-What Do You Need to Know' (*GALA*, 27 March 2023) <http://blog.galalaw.com/post/102ibg4/china-new-internet-advertising-regulation-what-do-you-need-to-know> accessed 19 March 2024

[32] Ishan Khanna, 'India: Specific Liability Of E-Commerce Entities Under The Consumer Protection Act, 2019' (*Mondaq*, 18 August 2020) < https://www.mondaq.com/india/dodd-frank-consumer-protection-act/976972/specific-liability-of-e-commerce-entities-under-the-consumer-protection-act-2019 > accessed 19 March 2024.

information about their products[33].

2. Conditions for the open and transparent use and processing of data: Numerous legislative requirements from India, the EU, the UK, and China emphasize how crucial openness and transparency are to the usage and processing of data. These include India's Digital Personal Data Protection Act, 2023, which bestows essential rights upon Data Principals, promoting transparency and accountability. The rights of the Data Principals are emphasized in Sections 11–14, making them an essential part of this law given the evolving data privacy landscape in India and also EU and UK GDPR Articles 5[34], 13[35], and 14[36]. In China, insurers are required under the PIPL to reveal the methods, purposes, and scope of their data processing. Article 11 of China's Measures for the Regulation of the Internet also mandates that insurers notify data subjects when their information is used for marketing purposes or to increase sales[37].

3. Regulations concerning the sufficiency, accuracy, relevance, and handling of data: Chapter 3 of the DPDP Act, 2023 from Sections 11 to 15, outlines the duties of data fiduciaries. These obligations include securing personal information, ensuring its accuracy and consistency, disclosing security breaches, erasing data as necessary, appointing a data protection officer, and obtaining consent from parents or legal guardians.

GDPR Article 5 in the EU and the UK enforces the principles of data reduction and purpose limitation while requiring enterprises to use accurate personal data. Article 30 mandates that insurers maintain a record of every data processing action they perform. Similar standards for data quality can be found in Article 82 of the Solvency II Directive[38]. In the United States, a variety of federal and state legislation, most notably the Colorado Privacy Act and the California Consumer Privacy Act, regulate the use of personal information.

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[33] 'Article 20 Advice, and standards for sales where no advice is given' (*Better Regulation*, 22 February 2016) <https://service.betterregulation.com/document/209965> accessed 19 March 2024

[34] 'Regulation (EU) 2016/679 of the European Parliament and of the Council' (*legislation.gov.uk*) <https://www.legislation.gov.uk/eur/2016/679/article/5> accessed 19 March 2024

[35] General Data Protection Regulation, art 13 ch 3

[36] *Ibid*

[37] Zhang (n 31)

[38] 'DIRECTIVE 138/2009/EC (SOLVENCY II DIRECTIVE)' (*EIOPA*) <https://www.eiopa.europa.eu/rulebook/solvency-ii-single-rulebook/directive-1382009ec-solvency-ii-directive_en> accessed 19 March 2024

These laws address data quality and preservation. China has put limits on data minimization in place, including Articles 6, 55, and 56 of the PIPL[39], which stipulate that information-gathering techniques and aims must be authorized and that information collection and processing are important.

HUMAN INSIGHTS

Concerns about fairness and the potential for bias brought about by AI may originate from perceived weaknesses in human control, while they are not inherently hazardous. The possibility that computer decision-making could surpass human decision-making in its entirety is a significant concern about the application of AI. Appropriate governance and oversight are required by several regulatory requirements about the use of automated decision-making in the insurance markets that are being scrutinized. Notable phrases include:

Automated decision-making: In India, as AI is directly not governed the decision automated by AI can be rejected, and also under Article 22 of the EU's GDPR[40], data subjects have the right to contest automated decision-making, giving them the choice to reject to be subjected to AI choices. Parallel to this, Article 24 of the PIPL gives Chinese citizens the choice to refuse automated decision-making.

Governance and Supervision: India lacks governance and supervision in respect to regulating AI however in line with this, the Digital Personal Data Protection Act of 2023 was just passed by the Indian government, and it can be used to solve some of the privacy concerns associated with AI systems[41]. EU Solvency II Directive Article 41, insurers are required to establish a transparent organizational structure with clearly defined and suitably segregated duties. Possible issues with AI use are covered in GDPR Article 37[42], including the requirement to appoint a data protection officer. Insurance companies are required by EU and UK GDPR

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[39], 'The PRC Personal Information Protection Law (Final): A Full Translation' (China Briefing, 24 August 2021) <https://www.china-briefing.com/news/the-prc-personal-information-protection-law-final-a-full-translation/> accessed 19 March 2024

[40] General Data Protection Regulation, art 22 ch 3

[41] Rahul Kapoor et al., 'AI Regulation in India: Current State and Future Perspectives' (*Morgan Lewis*, 26 January 2024) <https://www.morganlewis.com/blogs/sourcingatmorganlewis/2024/01/ai-regulation-in-india-current-state-and-future-perspectives> accessed 19 March 2024

[42] General Data Protection Regulation, art 37 ch 4

Article 35 to conduct a data protection impact assessment. Article 10 of China's 'Internet Information Service Deep Synthesis Management Provisions'[43] requires that data that AI systems receive and process be subject to human oversight.

CONCLUSIONS AND RECOMMENDATIONS

When it comes to AI in insurance, legislators, and regulators need to build on existing legislation to strike a balance between innovation and consumer protection.

This study claims that prejudice, exclusion, and discrimination were issues in the insurance industry even before artificial intelligence (AI) was a thing. The novel risks associated with AI's implementation in insurance include the speed at which its effects can spread and the scope of potential consequences from misuse.

Even in the absence of rules expressly addressing it, AI in insurance is not unregulated; for example, it is already subject to laws governing data privacy and insurance distribution. When developing their approach to artificial intelligence in the insurance business, legislators and regulators should make use of and build upon current legislation to achieve the right balance between protecting consumers and encouraging innovation.

Given this, we recommend the following policies to Lawmakers and Regulators:

Provide a clear definition of AI: The idea of AI for regulatory purposes is a subject of ongoing debate. A workable definition should focus on machine learning and limit artificial intelligence to self-learning systems to avoid overregulating currently in-place insurance processes.

Put Current Regulations into Practice: Regulators must update instructions for putting these regulations into practice in an AI context and utilize the present, technology-neutral frameworks to tackle risks related to AI.

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[43] Rogier Creemers and Graham Webster, 'Translation: Internet Information Service Deep Synthesis Management Provisions (Draft for Comment) – Jan. 2022' (04 February 2022) <https://digichina.stanford.edu/work/translation-internet-information-service-deep-synthesis-management-provisions-draft-for-comment-jan-2022/> accessed 19 March 2024

Establish Principles-Based Regulation: Since artificial intelligence is a rapidly evolving science, regulating is a challenging and dynamic task. Establishing principles-based regulatory frameworks that build upon current laws is the most promising way to manage AI threats without stifling innovation or competition.

Consider the Special Characteristics of AI in the Insurance Sector: In comparison to less regulated industries like technology or places where AI choices are irreversible and could have major consequences, cross-sectoral regulation will be significantly less successful. This is due to the reversibility of insurance judgments and the established efficacy of the existing regulatory structures.

Put the client first: It's important to avoid overemphasizing the regulation of certain rating aspects that are used to assess risks and establish premiums, even while data governance frameworks can be vital in ensuring actuarial fairness and preventing discrimination. Innovation will be aided by a fair, nondiscriminatory approach to data governance that puts the needs of the customer first.

Cooperate Worldwide: Regulating organizations should team up to develop AI in insurance use-case-specific standards. The promise and challenges presented by artificial intelligence could be better handled by insurers if laws and regulations were harmonized across jurisdictions.

Furthermore, insurers play a critical role in building trust in the proper use of AI. They need to be mindful of the concerns around the use of AI. They should, for example, promote openness and make clear how AI is used in customer-facing divisions like underwriting and claims processing. Insurance providers ought to monitor the outcomes of AI models as well. Even though it is currently difficult to evaluate results for bias, insurers may work with stakeholders like regulators, supervisors, and consumer organizations to build testing protocols and address more general concerns regarding the use of AI in insurance.