WORKING PAPER

The Role of Data in Inclusive Insurance

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Contents

Executive Summary

IN THIS PAPER, WE IDENTIFY FIVE WAYS IN which data trails are being leveraged by private sector actors, including insurance carriers and technology providers, to offer "inclusive insurance" for low-income and other excluded segments, such as rural small-holder farmers and gig workers. For each approach, we highlight how data enables insurers to make business models more inclusive, helping previously excluded customers to access suitable insurance products. More specifically, we cover how innovations in the use of data are facilitating inclusive insurance in the following ways:

1. **Design new products:** Data is being used to offer insurance tailored to the needs or behaviors of individuals.
2. **Inform pricing strategies:** Data is being used to offer risk-based pricing.
3. **Acquire and retain customers:** Insurers are collaborating with local organizations and online platforms to leverage data from these organizations to facilitate the distribution of insurance.
4. **Improve customer experience:** Insurers are leveraging data to facilitate customer onboarding. For example, by making quicker initial offers on insurance products.
5. **Improve claims management and fraud detection:** Insurers are increasingly turning to data analytics and machine learning-based models to enhance and automate fraud detection.

Overall, there is an opportunity to grow the use of data in inclusive insurance and for actors in the insurance value chain to expand the use of data to serve a larger pool of underserved customers in a sustainable and scalable manner.

Introduction

The Case for Inclusive Insurance

Globally, there is a large coverage gap in the financial inclusion segment. In emerging markets alone, and within the lower-income segments, there is an estimated untapped market of 3.8 billion people (Cheston et al. 2018). Even increasing insurance penetration by one percent in this segment opens up the business opportunity for insurers to reach 38 million new customers (Cheston et al. 2018).

In emerging markets alone, there are 3.8 billion uninsured or underinsured people.

Reaching underserved women presents a business opportunity of $1.7 trillion (Grown et al. 2015). Women in ten emerging economies (Brazil, China, Colombia, India, Indonesia, Mexico, Morocco, Nigeria, Thailand, Türkiye) will represent roughly up to half of the global women's premium by 2030 (Grown et al. 2015).

The women's insurance market opportunity is estimated to be USD 1.7 trillion.

The gap is particularly stark in rural areas, affecting farmers in particular. In low- and middle-income countries, there are an estimated 515 million farms (Hazell, Jaeger, and Hausberg 2021). Some areas fare better than others in terms of insurance gaps. For example, China and India together have nearly 60 percent of the farms (of all low- and middle-income markets), and approximately 80 percent of farmers in these two countries are likely to have insurance. However, there is a significant market opportunity in the rest of Asia, Africa, and Latin America and the Caribbean (LAC), where only 10 percent of farms are insured (Hazell, Jaeger, and Hausberg 2021).

Ninety percent of farms in Asia (excluding India and China), Africa, and Latin America are uninsured.

Given the large gap in coverage, inclusive insurance creates opportunities for insurers to tap new markets and diversify portfolio risk. It is an effective way to generate impact while also contributing toward environmental, social, governance (ESG) and sustainable development goals.

Inclusive insurance can be defined as an insurance solution designed for traditionally underserved and underinsured segments. In general, a large portion of the uninsured population comprises low-income individuals. However, research has shown that factors other than income (such as education level, occupation, gender, minority status, migration status, and location) also influence an individual's access to insurance. An inclusive approach aims to understand and solve the challenges of access and usage of insurance by underserved segments.

Data as an enabler of inclusive insurance

Data is at the core of any insurance offering. Data can empower insurers to understand the unique needs and risk profiles of underserved segments, which are instrumental for designing meaningful, affordable, and commercially viable solutions. Furthermore, accurate and relevant data can help create better risk assessment and pricing models and enhance the overall accessibility and effectiveness of inclusive insurance offerings.

In this publication, we discuss five ways in which data trails are being leveraged to make insurance more inclusive. Throughout the paper, we use data as an all-encompassing term that covers personal and non-personal data, including financial and non-financial data. We have covered a range of data trails in the paper that are used in inclusive insurance, including e-commerce activity, gender, location, age, transaction, crop, and weather data.

Data trails are leveraged to:

1. Design new products.
2. Inform pricing strategies.
3. Acquire and retain customers.
4. Improve customer experience.
5. Improve claims management and fraud detection.

By leveraging data trails generated by uninsured individuals and adopting advanced analytics, insurers may be able to assess the risks of customers who are excluded from traditional actuarial risk assessment models. As a result, insurers may be able to extend insurance coverage to these individuals.

Trends shaping the insurance industry

Over the past decade, the global insurance industry's effective growth has been sluggish, with life insurance growing at 1.4 percent and non-life insurance growing at 7.1 percent (SwissRe Institute 2022).

Insurance has historically catered to wealthy, urban individuals and large businesses, as these segments are generally considered to carry lower risk and have higher purchasing power. Thus, other potential markets have been overlooked.

Traditional data sources (Smith, Pirchalski, and Golbins 2022), legacy technology systems (Ogawa 2019), and conventional underwriting practices are ineffective for designing new solutions and achieving scale. To foster progress and inclusivity, insurers must embrace data-driven, agile, and innovative strategies that adapt to the evolving needs of a broader customer base.

Technology and data-driven insurance solutions are expected to outperform conventional insurance within this decade. The global banking and insurance market is projected to grow at a compound annual growth rate (CAGR) of 6 percent between 2021 and 2030 (Goyal et al. 2023). In contrast, the fintech industry is projected to grow at a higher rate, with banking fintechs forecasted to grow at 22 percent CAGR and insurtechs at 27 percent CAGR (Goyal et al. 2023). This growth is expected to be more significant in Asia, Africa, and Latin America.

Large volumes of data are available through sensors, Internet of Things (IoT) devices, smartphones, Global Positioning Systems, etc. that can now be harnessed by insurance providers. Data analytics can

provide real-time, actionable, and accurate business intelligence across a variety of use cases. According to a Willis Towers Watson survey, over 68 percent of insurers reported benefiting from predictive analytics, resulting in an increase in sales and cross-selling, and 41 percent reported that predictive analytics helped reduce underwriting expenses and claims costs (InsurTech Insights n.d.).

To turn data into a competitive advantage, insurers must develop capacities to harness data from multiple sources and turn them into actionable insights. Insurers aiming to succeed in inclusive insurance should adopt a long-term perspective, embrace learning and experimentation, and incentivize data-driven decision-making over conventional methods, while acknowledging and addressing the inherent biases in their systems and underwriting practices.

Five ways in which data can make insurance more inclusive

WE HAVE IDENTIFIED FIVE WAYS IN which data trails are being leveraged to offer insurance to low-income and other excluded segments, such as rural small-holder farmers. These examples highlight the opportunity that data opens to create more inclusive insurance business models that leverage data-driven approaches to reach underserved segments. We acknowledge that the categories ("ways") highlighted here are not mutually exclusive, and several examples can fit in multiple categories. We have included examples that best fit each category.

1. Design new products

By integrating insurance offerings into the customer's e-commerce experience, insurance providers can access multiple sources for data, such as transaction data, data gathered through IoT devices, and e-commerce data to develop tailored value propositions for new and underserved customers.

Mercado Pago leverages customers' transaction behavior data from the Mercado Libre platform, as well as data about products sold on the platform, to price the extended warranties product and develop tailored value propositions for customers.

As an example, **Mercado Pago** (one of the largest fintechs in Latin America, wholly owned by Mercado Libre, Latin America's largest e-commerce company) offers insurtech products, such as warranties on products purchased through Mercado Libre.

> "Offering insurance products is usually inefficient since traditional insurance companies do not have the flexibility and customer-level data that fintechs such as Mercado Pago have. The data allows Mercado Pago to offer the right product at the right time and at the right price. By leveraging these capabilities, Mercado Pago expedites the process that it takes for insurance companies to launch these products."
>
> *Carlos Cernadas—Head of Mercado Pago*

Mercado Pago's pricing specialists evaluate data on the covered products and customers' preferences to price the extended warranties product. Information related to products includes a brand's reputation, the volume of sales made through the platform, the percentage of returns, and reviews about sellers to determine the price of the warranty. Additionally, customers' demographic and transaction behavior data are analyzed to assess their purchasing power. Per Mercado Pago, customers who buy higher-quality products and transact more frequently on its e-commerce app are more likely to purchase warranties and extend such warranties. Such insights help Mercado Pago to set pricing and develop more tailored value propositions to its customers.

Another example of product innovation is how providers are using new data-sharing mechanisms, such as open finance, to inform product design. **PicPay**, a Brazilian fintech, has introduced an insurance cover within its app, designed to safeguard its users from financial losses due to unauthorized or fraudulent transactions on PIX, Brazil's instant payment system. Data shared through open finance has enabled PicPay to extend this insurance coverage not only to payments from their account, but also to transactions executed through other accounts from which data has been shared. According to PicPay, the company gathers and analyzes data shared through open finance to better understand customer behaviors and needs. For example, the insurance coverage limit for the PIX product is determined by assessing the average transaction values across a range of activities, including instant payments, bank transfers, wire transfers, shopping, and other general transactions through open finance. Additionally, PicPay analyzes customers' financial behaviors, demographics, types, and amounts of transactions to tailor insurance to each customer's specific needs.

PicPay leverages data shared through open finance to design fraud insurance on unauthorized or fraudulent transactions on PIX and tailor this insurance to meet customer needs.

2. Inform pricing strategies

The lack of historical risk data on typically underinsured segments, such as gig workers, can make it difficult for insurers to project loss ratios, which are a critical metric for insurers to price insurance products.

Several fintechs are using data trails to develop specialized financial solutions targeting different segments of workers. For instance, **Moove**, a Nigerian fintech, offers mobility platform workers a range of financial services. Financial services providers (FSPs) can find it challenging to serve gig workers due to the unpredictable nature of their income, which limits their ability to assess risk.

Moove leverages vehicle telematics using remote sensors to collect data on driver behavior, vehicle usage, geographic distances covered, and other relevant variables, which enables it to assess risk and design tailored accident insurance for drivers of ride-hailing companies.

Moove collaborates with popular ride-hailing and mobility platforms like Uber, Glovo, and Careem to access data on their pool of drivers. By using specific criteria, such as their trip history, ratings, and cancellation rates, Moove identifies high-potential drivers and offers them financing for new vehicles sourced by the company. Additionally, Moove provides accident insurance as part of the package offered to these drivers. To price the accident insurance product, Moove employs vehicle telematics through remote sensors, which allows it to collect data on driver behavior, vehicle usage, geographic distances covered, and other relevant variables. This data-driven approach enables Moove to better assess risk and design tailored insurance solutions for drivers.

Agriculture is another area where data trails are being used. For smallholder farmers, predicting future risk and losses is complex, especially with the volatility of climate change. However, smallholder farmers are highly vulnerable to shocks, and farm yields depend on unpredictable seasonal rainfall. Index-based (or parametric) insurance has gained popularity due to the simpler claims assessment and lower adverse selection and moral hazard risks,[1] with approximately

1 Index insurance is a relatively new but innovative approach to insurance provision that pays out benefits based on a predetermined index (for example, rainfall level) for the loss of assets and investments (primarily working capital) as a result of weather and catastrophic events (Global Index Insurance Facility n.d.). Because index insurance does not necessarily require the traditional services of insurance claims assessors, the claims settlement processes can be quicker and more objective (Global Index Insurance Facility n.d.).

82 percent of agricultural insurance programs adopting this model over the traditional indemnity insurance approach (Hazell, Jaeger, and Hausberg 2021). Per the International Conference on Inclusive Insurance 2020 report, public-private partnerships that include engagement with governments, private insurers, and intermediaries can help farmers pay premiums while creating a scalable platform. Insurers in countries such as India (the government-sponsored crop insurance scheme, Pradhan Mantri Fasal Bima Yojana) and Uganda (the Agro Consortium) are adopting this approach (MunichRe and Micro Insurance Network 2020). Through this approach, they use techniques such as remote sensing, which leverages drone-based imagery, high-resolution satellite data, biophysical models, and artificial intelligence (AI) to estimate crop yields. These techniques, particularly remote sensing for developing index insurance, are designed to address some of the key problems in traditional crop insurance, particularly the acute lack of data and costs associated with in-person assessments of remote areas. In the following examples, data is not only used to price products but also to automate claims.

OKO Finance, an insurtech focused on Sub-Saharan Africa, develops parametric insurance for smallholder farmers by leveraging data from multiple sources to efficiently assess and process claims.

OKO Finance leverages meteorological data to develop indices that assess perils and associated trigger levels to make claims payouts.

OKO collaborates with eLEAF, a remote-sensing company based in the Netherlands, to develop weather index-based insurance. eLEAF uses meteorological data, particularly thermal data, to model water stress and create weather indices. These indices assess the peril, such as cumulative rainfall, and trigger levels to initiate claims processing. For example, in its flood insurance policy, a payout of 20 percent of the policy's value may occur if a rainfall threshold of 150mm is met, while a payout of 100 percent may be triggered if more than 500mm of rain falls within the covered period. Different payouts are possible on a sliding scale, ranging from 20 to 100 percent, depending on the actual amount of rainfall. Excess rainfall measurements rely on various datasets, while flood risk is modeled using a flood archive.

Blue Marble is an impact insurtech focused on underserved communities in emerging markets. It has partnered with Nespresso in Colombia to create Café Seguro, an index insurance solution for smallholder coffee bean farmers. Café Seguro helps address the climate risks faced by coffee farmers during key growth stages, such as excess rainfall during flowering and drought during cherry ripening. To design indices, Blue Marble integrates satellite-based historical weather activity data, spanning over 20 years and updated in near real-time, with agronomic data collected from farmer cooperatives. During the coverage period, these indices are compared to the weather to determine payouts for events that exceed a threshold "trigger." The insurance policies are underwritten by Seguros Bolívar, which ensures that payouts are duly made to those eligible for payouts. Blue Marble uses its proprietary AgSuite platform to assimilate data, design parametric solutions, and monitor parametric policies online.

Blue Marble partners with insurance companies to protect farmers against climate risks by combining historical weather data with agronomic knowledge to create insurance indices that automatically payout if adverse weather conditions occur so that farmers receive vital funds when needed.

3. Acquire and retain customers

Insurers and insurtechs can collaborate on distribution with local organizations and online platforms that already have access to a large pool of customers. Such partnerships lower the cost of customer acquisition and facilitate the design of tailored insurance products that meet the specific needs of the target segments (as we saw in the Mercado Pago

example of leveraging its ecommerce platform for key insights on customer behavior).

Inclusivity Solutions, a business-to-business (B2B) insurtech in Sub-Saharan Africa, delivers a "loyalty" hospital cash and funeral insurance product that has been developed by Inclusivity Solutions in collaboration with Orange Money and Prudential Belife Insurance in Côte d'Ivoire. Inclusivity Solutions leverages the transaction data of Orange Money's customers and offers them insurance at no charge if they meet eligibility criteria that classifies them as "loyal" Orange Money customers**.** Specifically, to qualify, Orange Money customers are required to make a specific number of transactions (typically five) and the aggregate value of transactions should meet a low threshold.

Inclusivity Solutions leverages the transaction data of Orange Money's customers and offers them hospital and funeral insurance at no charge if they meet a threshold of number and value of Orange Money transactions.

According to Inclusivity Solutions, close to 60 percent of eligible customers have registered for the product. The introduction of the loyalty product has had a positive impact on Orange Money's performance, as customers who opted for the loyalty offering notably increased spending, with a 20 percent increase in the number of transactions and a 24 percent surge in the value of each transaction versus unregistered customers.

> "By providing free insurance, Orange Money intends to increase loyalty and revenue from its customers and reduce churn rates, which would provide a sufficient financial return for Orange Money to cover the insurance premium."
>
> *Zviko Chirema—Business Intelligence Lead, Inclusivity Solutions*

Another insurtech, **Insurama,** which operates in Latin American markets such as Brazil and Colombia, as well as in Spain, works with retail stores that sell phones to distribute gadget insurance by embedding insurance into phone sales. Roughly 30 percent of customers at these retail stores are lower income. Insurama works with Foliume, an AI provider, to make personalized offers for gadget insurance and improve customer retention. Foliume develops an AI-based model using Insurama's historical policy, receipt, claims, and client data to predict which customers are more active and more likely to churn. (They compare the characteristics of new versus old customers using the different datasets and make predictions on who is likely to churn). They then recommend personalized journeys to help reduce customer churn rates depending on the churn reasons. By deploying these models, Insurama was able to bring down yearly churn rates and increase the number of insured customers.

Insurtech Insurama has partnered with technology provider **Foliume** to develop an AI-based model that uses policy, receipt, claims, and client data to predict customer churn for gadget insurance and recommend personalized journeys based on the reasons for churn.

4. Improve customer experience

Several customers targeted by inclusive insurance providers are first-time insurance buyers. Therefore, it is crucial to ensure a simple onboarding experience. Wherever possible, offering human assistance during enrollment and providing post-sales support can enhance customer satisfaction and facilitate a smoother insurance buying experience. According to McKinsey & Company, in the United States auto insurance sector, insurers providing best-in-class customer experiences were 80 percent more likely to retain customers than companies that did not (Catlin et al. 2016).

Data can help simplify the onboarding experience for first-time users. For example, **Bluezone Insurance,** a new insurtech based in the United Kingdom**,** has launched a specialized life insurance cover for those living with chronic health conditions, starting with type 2 diabetes. Traditionally, such conditions are excluded from conventional life insurance eligibility criteria, so individuals with these conditions are excluded from life insurance offerings.

Bluezone Insurance leverages proprietary patient data and deploys deep learning to provide tailored life insurance to customers who have chronic health conditions through an online process that provides initial quotes within fifteen minutes and tailored insurance coverage after customers submit results of their home-based medical tests.

The company's founding team developed a new risk engine, leveraging deep learning and proprietary data from 18 million patient records to offer cover more efficiently and expand the range of insurable cases. To provide accurate premiums, Bluezone Insurance partnered with health data company Inuvi for API-based data sharing on lab testing results, enabling quick assessments.

Bluezone Insurance offers customized premiums based on an individual's health profile and streamlines the onboarding process by removing lengthy form-filling and medical appointments. Interested customers can apply online with a simple form and receive a quote within 15 minutes (Insurtech Gateway 2023). They become eligible for a home-based finger-prick HbA1c blood test. Bluezone Insurance then uses the test results to tailor life insurance coverage for customers in a few hours, while offering free life insurance in the interim. After analyzing the blood test results, Bluezone provides a personalized quote to the customers.

5. Improve claims management and fraud detection

The claims settlement process is often a pain point for insurance customers, but smart use of data and AI-led models can help drive customer satisfaction with the claims process.

For example, technology provider **Etherisc** has developed a blockchain-based platform that allows insurance providers to deploy parametric insurance products on the blockchain. In Kenya, the platform automates parametric insurance by using smart contracts that are programmed to make claims payouts into smallholder farmers' mobile wallets based on weather, yield, and insurance-specific data. The platform tracks real-time data throughout the insurance life cycle as a "single source of truth." This means there is one single version of data in real-time that all stakeholders access.

Etherisc has developed a blockchain-based platform that uses smart contracts to make claims payouts to smallholder farmers based on weather, yield, and insurance-specific data.

The types of data points tracked by the platform include insurance-specific data, such as data on premiums paid by each farmer or policyholder, amount insured for each farmer or policyholder, claim trigger levels, claims payout eligibility, and claim amounts. Data points also include farmer or policyholder data, such as coordinates of farmers or policyholders (which can be tracked in real-time), types of crops they farm, gender, and unique farmer IDs. Such data yields powerful insights when consolidated on a single platform. Timestamps for each part of the insurance lifecycle allow automated tracking of claims payout times, helping to identify and address delays in payouts. Additionally, real-time weather data throughout

the agricultural season enables the integration of mid-season payouts. For example, a farmer can receive a payout in time to start replanting.

An example of an insurtech that leverages AI for processing claims is **Lemonade,** a US-based company that offers renters, homeowners, cars, pet, and term insurance products. Lemonade has developed a fully digital claims process and, according to Lemonade, it collects 100 times more data points than traditional insurance companies through its app (Volt Equity n.d.). When customers make a claim, they can record a video on their phone, providing critical details (for example, location, date, and time) and responses to various standard questions. Using AI and machine learning, Lemonade analyzes these videos, including non-verbal cues like tone and facial expressions. Customers experience a streamlined interaction and Lemonade is able to finetune its underwriting and detect fraud more effectively, leading to improved loss ratios and operating costs (Volt Equity n.d.).

Lemonade uses AI and machine learning to analyze videos uploaded by customers when they make a claim, as well as data points (such as location, date, and time) for processing claims.

Within the claims management process, insurers face the risk of fraudulent claims. In 2022, the US insurance industry alone lost over $308 billion as a result of fraud, accounting for approximately 10 percent of claims costs in North America (Coalition Against Insurance Fraud 2022). The insurance fraud detection market is projected to witness significant growth globally, with a CAGR of 24 percent, reaching a valuation of $28.1 billion by 2031, up from $3.3 billion in 2021 (Allied Market Research 2022).

In the context of inclusive insurance, robust fraud detection mechanisms are crucial for maintaining low operating costs and offering affordable products. Insurers are increasingly turning to data analytics and machine learning-based models to enhance fraud detection. By employing predictive analysis on historical data, insurers can quickly identify trends, patterns, and probabilities of fraudulent activities with a high level of accuracy. For instance, **Democrance**, a United Arab Emirates–based B2B insurtech, uses machine learning and AI to conduct regression analysis of claims, which helps to pinpoint correlations with abnormal claims activities. This enables Democrance to identify claims with a high possibility of fraud within a short amount of time (Democrance n.d.).

Democrance uses AI and machine learning to carry out predictive analysis on historical data to identify fraudulent claims.

Conclusion

DATA, PARTICULARLY IN THE CONTEXT of inclusive insurance, is fundamental in driving innovation, cost reduction, efficiency, and customer satisfaction. Data trails that are typically generated by uninsured customers, such as mobile app usage data, including data related to the use of ecommerce apps and airtime top-up data, enable insurers to tailor products, assess risks, and reach underserved populations, making insurance more accessible and affordable. Additionally, weather and crop-related data enables insurers to determine the probability of weather-related and other catastrophic events and allows them to offer agricultural insurance to smallholder farmers, a largely underinsured segment.

Data analytics, AI, and machine learning empower insurers to streamline processes, detect fraud, and improve customer experiences. Collaborations between insurtechs, traditional insurers, and other stakeholders have resulted in new insurance solutions and business models, propelling the insurance industry toward greater efficiency, scale, and impact. From a business case perspective, the use of data creates opportunities for market expansion for insurers and enables them to go down market. It also enables a diversification of risk portfolio for insurers. It is an effective way to generate impact and contribute toward environmental, social, governance (ESG) and sustainable development goals.

Despite the positive developments, it is important to note that the use of data and the development of inclusive insurance remain limited. There is, therefore, an opportunity for actors in the insurance value chain to expand the use of data to serve a larger pool of underserved customers in a sustainable and scalable manner. While data cannot solve all challenges in the development and delivery of inclusive insurance, it is likely to play a key role in the development of the market in the coming years.

References

Allied Market Research. 2022. "Insurance Fraud Detection Market." June. https://www.alliedmarketresearch.com/insurance-fraud-detection-market-A06948

Catlin, Tanguy, Ewan Duncan, Harald Fanderl, and Johannes-Tobias Lorenz. 2016. "The growth engine: Superior customer experience in insurance." McKinsey Financial Services Practice. https://www.mckinsey.com/~/media/mckinsey/industries/financial%20services/our%20insights/the%20growth%20engine%20superior%20customer%20experience%20in%20insurance/the_growth_engine_superior_customer_experience_in_insurance_may_2016.pdf

Cheston, Susy, Sonja Kelly, Allyse McGrath, Conan French, and Dennis Ferenzy. 2018. "Inclusive insurance: Closing the protection gap for emerging customers." Institute of International Finance, 1-49. https://content.centerforfinancialinclusion.org/wp-content/uploads/sites/2/2018/08/Inclusive-Insurance-Final-2018.06.13.pdf

Coalition Against Insurance Fraud. 2022. "Fraud Stats." https://insurancefraud.org/fraud-stats/

Democrance. N.d. "Power of Data in Micro-insurance and beyond." Podcast. https://www.democrance.com/power-of-data-in-micro-insurance-and-beyond/

Goyal, Deepak, Rishi Varma, Francisco Rada, Aparna Pande, Juan Jauregui, Patrick Corelli, Saurabh Tripathi, Yann Sénant, Stefan Dab, Yashraj Erande, JungKiu Choi, Jan Koserski, and Joseph Carrubba. 2023. "Reimagining the Future of Finance." BCG. May. https://web-assets.bcg.com/66/7e/a36d7eab41e2b4b65c3e687a17f5/bcg-qed-global-fintech-report-2023-reimagining-the-future-of-finance-may-2023.pdf

Grown, Caren, Mary Porter-Peschka, Natalie Louat, Henriette Kolb, Gaelle Olivier, and Garance Wattez-Richard. 2015. "SHEforSHIELD: Insure Women to Better Protect All." IFC. https://www.ifc.org/content/dam/ifc/doc/mgrt-pub/sheforshield-final-web2015.pdf

Hazell, Peter B., Alexander Jaeger, and Rebecca Hausberg. 2021. "Innovations and emerging trends in agricultural insurance for smallholder farmers—an update." Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) and Competence Centre Financial Systems Development and Insurance. https://www.giz.de/expertise/downloads/2021%20GIZ_Innovations%20and%20emerging%20Trends%20in%20Agricultural%20Insurance-An%20update.pdf

Insurtech Gateway. 2023. "Reinventing Life Insurance for People with Chronic Illnesses." https://www.insurtechgateway.com/portfolio/bluezone/

InsurTech Insights. N.d. "Insurers' Demand for Predictive Analytics on the Rise––WTW." https://www.insurtechinsights.com/insurers-demand-for-predictive-analytics-on-the-rise-wtw/

MunichRe and Micro Insurance Network. 2020. "International Conference on Inclusive Insurance 2020 Report." https://www.munichre-foundation.org/content/dam/munichre/foundation/publications/inclusive-insurance/2020-icii-conference-online/2020_ICII_Report_final.pdf/_jcr_content/renditions/original./2020_ICII_Report_final.pdf

Ogawa, Jillian. 2019. "Global Survey: Outdated Technology is the No.1 Threat to Insurers." Blog. September 12. https://blog.workday.com/en-us/2019/global-survey-outdated-technology-is-the-no-1-threat-to-insurers.html

Smith, Logan T, Emma Pirchalski, and Ilana Golbins. 2022. "Avoiding Unfair Bias in Insurance Applications of AI Models." SOAS Research Institute. August. https://www.soa.org/4a36e6/globalassets/assets/files/resources/research-report/2022/avoid-unfair-bias-ai.pdf

SwissRe Institute. 2022. "World insurance: inflation risks front and centre." https://www.swissre.com/dam/jcr:4500fe30-7d7b-4bc7-b217-085d7d87a35b/swiss-re-institute-sigma-4-2022.pdf

Volt Equity. N.d. "Insurance, Reimagined." Blog. https://www.voltequity.com/thesis/lemonade-disrupting-insurance-with-artificial-intelligence

African Development Bank / Banque Africaine de Développement
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AFD

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