Regulating InsurTech: Role of the Regulator in managing data risks and protecting consumers
Presenters

Technical expert

Stefanie Zinsmeyer
Lead Digital Finance and Digital Economy, GIZ
GIZ

Moderator

Janina Voss
Access to Insurance Initiative (A2ii)

IAIS representatives

Natalia Escobar
International Association of Insurance Supervisors (IAIS)

Supervisory Presenters

Case study 1: BaFin, Germany
Case Study 2: IRA, Kenya
Case study 3: NAIC, USA

Speakers:
Kathleen Koehn, BaFin
Elias Omondi, IRA
Tim Mullen, NAIC
Enter the code and participate!

Go to www.menti.com and use the code 58 69 85
**Big Data**

**Volume**
- Scale of Data
- 40 Zettabytes: 1.3 trillion (1.3Z) data will be created by 2020, an increase of 360 times from 2006.
- 6 Billion People have cell phones.
- World Population: 7 Billion.

**Velocity**
- Analysis of Streaming Data
- The New York Stock Exchange captures 1TB of trade information during each trading session.
- Modern cars have close to 100 sensors that monitor items such as fuel level and tire pressure.

**Veracity**
- Uncertainty of Data
- 27% of respondents in a survey were unsure of how much of their data was inaccurate.

**Variety**
- Different Forms of Data
- As of 2011, the global size of data in healthcare was estimated to be 150 Exabytes.
- 4 Billion+ hours of video are watched on YouTube each month.
- 400 Million Tweets are sent per day by about 200 million monthly active users.
- By 2014, it’s anticipated there will be 420 Million wearable, wireless health monitors.

**The FOUR V’s of Big Data**
- From traffic patterns and music downloads to web history and medical records, data is recorded, stored, and analyzed to enable the technologies and services that the world relies on every day. But what exactly is big data, and how can these massive amounts of data be used?
- As a leader in the sector, IBM data scientists break big data into four dimensions: **Volume**, Velocity, Variety and Veracity.
- Depending on the industry and organization, big data encompasses information from multiple internal and external sources such as transactions, social media, enterprise content, sensors and mobile devices. Companies can leverage data to adapt their products and services to better meet customer needs, optimize operations and infrastructure, and find new sources of revenue.

**By 2015**
- 4.4 Million IT Jobs will be created globally to support big data, with 1.9 million in the United States.

**Sources:** McKinsey Global Institute, Twitter, Cisco, Gartner, EMC, SAS, IBM, MEPTEC, OKI

Technology has allowed businesses to better understand and serve consumers through the collection and analysis of big data.
Current Insurtech innovation landscape

Employee benefit platforms (90 companies)
- Maxwell Health
- Zenefits
- Collective Health
- BeneStream
- HCentive
- Hixme

Health/travel (163 companies)
- HealthSherpa
- bright health
- Clover Health
- Oscar Stride Health

Enterprise/commercial (159 companies)
- PIE INSURANCE
- EMBROKER
- coverwallet
- ZENSURANCE
- BUNKER
- NEXT INSURANCE

Product (49 companies)
- trov
- verifly
- lovys
- orchard
- massup:
- simplesurance

P2P insurance (35 companies)
- friendurance
- BOUGHTBYMANY
- OTHERWISE
- Pineapple
- Cute la So-Sure

Insurance user acquisition (124 companies)
- BOLT
- welthie
- qover
- INSLY
- KASKO
- flamingoAI

Life/home, P&C (156 companies)
- Lemonade
- Ladder
- Hippo
- Jetty
- neos
- kin.

Insurance data/intelligence (128 companies)
- Captricity
- Praedicat
- CARPE DATA
- Advies
- APIXIO
- Quantemplate

Insurance infrastructure/backend (291 companies)
- ONE INC.
- ClaimKit
- uniRISX
- Shift Technology

Reinsurance (30 companies)
- Analyze Re
- PlaceRe
- PeakRe
- EazyRe
- KUVA RE

Insurance comparison/marketplace (411 companies)
- Goji
- Policygenius
- Coverfox
- COVERHOUND
- bidu

Consumer management platforms (107 companies)
- wefox
- Slice
- Insurify

Insurance education/resources (38 companies)
- policywala
- clearsurance
- arvi
- Agent Review

Source: Venture Scanner (2018)
But innovations, and specifically the use of consumer data, also leave consumers vulnerable
Where data leaves consumers vulnerable

Personal data of a billion Indians sold online for £6, report claims

Newspaper says it bought access to details from world’s largest biometric database, used to administer public services

BBC World Service (01.11.2018)

The Guardian (04.01.2018)

For example, Tala, a firm that offers microloans in Kenya using a smartphone app to evaluate applicants’ credit risk, gathers various types of data, including where loan applicants spend their time, how many people they communicate with every day, how often they call their parents (by searching call logs for the word “mama”) and, less surprisingly, whether they pay their bills on time.

CGAP blog (11.12.2018)
Data protection says: “Collect and use only that information which is necessary to serve the immediate purpose.”

Big data says: “Give us everything you have and we’ll see if we can find a purpose for it.”

https://www.centerforfinancialinclusion.org/getting-data-right
Key consumer data risks affecting the insurance industry

Negative consumer outcomes

Address negative outcomes directly

Onus on providers to operate in consumers’ best interest

Example:
Treating Customers Fairly (TCF) in South Africa
Regulators can hold firms accountable for consumer harm due to inappropriate data collection, storage or use.

Drivers

- Failure of controls
- Error
- Obstructed consent
- Unauthorized collection, storage and use
- Data breaches

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How high or low do you assess consumer data risks in your jurisdictions? Very high – high – low – very low
Key consumer data risks affecting the insurance industry

Drivers

Address drivers directly

Stops negative consumer outcomes from occurring

Example:
GDPR requires that the processor implement appropriate security measures to ensure a level of security proportionate to the risk. E.g. encryption of personal data.

Negative consumer outcomes

- Loss of privacy
- Lack of safety and security
- Exclusion and lack of value
- Manipulation
- Reputational risk
- Financial loss

But data and data risks are pervasive and seldom affect only one sector
Countries falling into a particular category may have draft or pending legislation, which once in operation, may change the applicable framework category.

Source: Based on DLA Piper (2018) and Deloitte (2017)
Overall implementation strategies

**Omnibus regulation**
- **Shape**
  - Shapes the application of policy to the insurance sector
- **Delegate**
  - Delegates the regulation of consumer data risks to the data regulator

**Sectoral/no regulation**
- **Create**
  - Actively creates the data regulation approach for the insurance sector
- **Take risk**
  - Takes the risk of not developing a data regulation approach, leaving the sector without a specified legislative approach to consumer data protection and privacy
Overall implementation strategies

**Omnibus regulation**

- **Active**
  - **Shape**
    - Shapes the application of policy to the insurance sector

- **Passive**
  - **Delegate**
    - Delegates the regulation of consumer data risks to the data regulator

**E.g. BaFin (Germany)**

Employs regulatory and supervisory tools to augment the existing omnibus legislative framework

**Tools employed:**

- **Regulate**: Data protection requirements beyond GDPR
- **Supervise**: Supports BfDI (Federal Commissioner for Data Protection) in implementing/enforcing data protection laws
- **Advise**: Assists firms with compliance with GDPR (innovation hub)
Overall implementation strategies

**E.g. IRA (Kenya)**

Data protection and privacy legislative framework absent; IRA has amended regulation to deal with data-related risks to consumers.

**Tools employed:**

- *Regulate:* Amending and reinterpreting existing market conduct guidelines to ensure appropriate consumer protection against arising data risks; Explicit consideration of harmonisation with pending data regulations and global guidelines.

Tools employed:

- *Create:* Actively creates the data regulation approach for the insurance sector.

- *Take risk:* Takes the risk of not developing a data regulation approach, leaving the sector without a specified legislative approach to consumer data protection and privacy.
Overall implementation strategies

Omnibus regulation

Active

Shape
Shapes the application of policy to the insurance sector

Delegate
Delegates the regulation of consumer data risks to the data regulator

Passive

E.g. CNSF (Mexico)

The Comisión Nacional de Seguros y Fianzas (CNSF) of Mexico considers the Federal Law on the Protection of Personal Data held by Private Parties to sufficiently deal with the risks in the insurance sector.

Tools implemented:

- **Monitor**: Monitoring the prevalence and impact of data risks in its market which includes conducting research on these risks.
Overall implementation strategies

**Omnibus regulation**

**Shape**
Shapes the application of policy to the insurance sector

**Delegate**
Delegates the regulation of consumer data risks to the data regulator

**Sectoral/no regulation**

**Create**
Actively creates the data regulation approach for the insurance sector

**Take risk**
Takes the risk of not developing a data regulation approach, leaving the sector without a specified legislative approach to consumer data protection and privacy
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Has your authority taken an active approach on data regulation ("shapes" or "creates" data regulation)? yes/no

Do you think your authority should become more active in data protection? Yes/no
Test it yourself!

Check if your data has been compromised in a data breach

https://haveibeenpwned.com/
Big data meets artificial intelligence
Challenges and implications for the supervision and regulation of financial services
The idea behind it: Bringing together experts from all fields

**Technology**

**Market perspective**
- Banks and financial service providers
- Insurance companies
- Capital markets

**Supervisory perspective**
- Financial stability and market supervision
- Firm supervision
- Consumer protection

Link to the study: [https://www.bafin.de/SharedDocs/Downloads/EN/dl_bdai_studie_en.html](https://www.bafin.de/SharedDocs/Downloads/EN/dl_bdai_studie_en.html)
Cycle of innovation requires early supervisory attention

- More data
- BDAI
- Innovation
- New processes, products and services
- Revised regulatory framework (e.g. PSD 2 and EU GDPR)

Source graphic: BCG
Profound implications along three dimensions

**Financial Stability**
- New forms of systemic importance
- Market structures change

**Microprudential Supervision**
- Responsibility remains with people
- No black box excuses
- Detection of financial crime

**Consumer Protection**
- Discrimination vs. differentiation
- Consumer sovereignty
Basic regulatory principles should remain unchanged

Regulatory principles

- Technology-neutral
- Principles-based
- Further strengthen international cooperation to reduce regulatory arbitrage
- Develop BDAI capabilities as a supervisor

Speed of innovation is increasing
Thank you for your attention!
Role of the Regulator in managing data risks and protecting consumers
“CREATE STRATEGY”

Elias Omondi
Actuarial Associate
Insurance Regulatory Authority - Kenya
STATE OF PRIVACY?

- Constitutional privacy protections: Article 31 of the Kenyan Constitution specifically protects the right to privacy.

- Data protection law: Kenya does not currently have specific data protection legislation. However, a Data Protection bill was tabled in Parliament in 2015.

- Data protection agency: Kenya does not have a specific data protection authority. – To be set once the law is enacted

- The Integrated Population Registration System (IPRS) collects data from a dozen databases held by various government agencies.
WHY CREATE STRATEGY?

- Coordination
- Embracing Change: framework to test a new idea in a live environment and adopt safeguards
- Capacity
- Regulatory sandbox: Framework set up for small scale live testing of innovations in a constrained environment
- Structured approach, information made publicly available
- Explicit & transparent entry criteria for applicants
- Innovation Hubs inclusive insurance innovation lab
- iLab set up to stimulate transnational multi-stakeholder dialogue and collaboration

Financial Inclusion & Innovation Emergence & Integration of Business Models

Elias Omwadi, Actuary IRA Kenya
RISKS VS BENEFITS

Role 1: Maintenance of a fair, safe and stable insurance sector

Consumer benefits
- Access to insurance
- Better alignment to customer needs
- Better risk pricing
- Potentially lowering cost

Consumer risks
- Less personal interaction / consumer trust
- Privacy & cyber-risks
- Reduced risk pooling & risk of financial exclusion
- Reduced transparency (AI / machine learning)

Role 2: protect the interest of the insurance policyholders and beneficiaries

Role 3: promote the development of the insurance sector
TCF Model of Consumer Protection aims to raise standards in the way firms carry on their business by introducing changes that will benefit consumers and increase their confidence in the financial services industry.

Framework employed to create experimental environment where FinTech/InsureTech can test new ideas and innovations in product design, product development and distribution with a leverage to contain the consequences of failure.
MARKET CONDUCT GUIDELINE
- Policies and procedures for the protection of confidential information on customers.
- Board and Management required ensure that confidentiality of data as overall culture and strategy

DRAFT REGULATORY SANDBOX POLICY
- Provides appropriate regulatory support by relaxing specific legal and regulatory requirements.
- “To Maintain” requirements on confidentiality of customer information, Fit and proper criteria particularly on honesty and integrity handling of customer’s moneys

2016

TCF CIRCULAR
- TCF Self Assessment Tool developed
- Framework for Treating Customers Fairly (TCF) developed on six outcomes amongst them consumer data confidentiality

2017

2018

2019

DYNAMIC BALANCED REGULATIONS
- Enact Sandbox Policy
- Develop Innovation Incubation Centre
- Develop Conduct of Business Policy
THANK YOU ASANTE!!

eomondi@ira.go.ke
omondieliaso@gmail.com
The Role of the Regulator

Tim Mullen
NAIC Director of Market Regulation
January 24, 2019
Regulating for Responsible Data Innovation

• Encourage innovation and maintain consumer protections

Consumer Benefits
• More accurate assessment of risk of loss
• Faster processing of quotes and claims
• Enhanced risk management and loss prevention

Consumer Concerns
• Accuracy and completeness of data
• Disclosure to consumers and consumer consent
• Privacy and cybersecurity

NAIC Workstreams and Model Laws
• Innovation and Technology (EX) Task Force
• Big Data (EX) Working Group
• Standards for Safeguarding Consumer Information Model Regulation (2000)
• Privacy of Consumer Financial and Health Information Regulation (2002)
• Insurance Data Security Model Law (2017)
Case Study
Data Breach and the Regulatory Response

• Four Stages of Exam
  • Integration
  • Initial Assessment
  • Breach Assessment
  • Cybersecurity Assessment

• Presentation of Exam Findings
  • Data Breach
  • Pre-Breach Cybersecurity
  • Pre-Breach Response Preparation
  • Response Adequacy
  • Post-Breach Cybersecurity
  • Corrective Actions
Questions and Comments

Tim Mullen
tmullen@naic.org
816-783-8260
Thank you.

Save the Date!
Next Consultation Call on 21 March, 2019
RegTech and SupTech: Implications for Supervision

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