Technology in Microinsurance

Opportunities and Challenges

Brian Colgan
Head of Life Insurance Consulting, Indonesia
JRS Insurance Summit, 1 August 2018

Agenda

What is Microinsurance?

National Regulators' Point of View

"A general or life insurance policy with a sum insured of INR 50,000 (approximately USD 800) or less."

- Insurance Regulatory and Development Authority, India 2005

"Microinsurance is an activity providing specific insurance, insurance-like products, and other similar products and services that meet the needs of the low-income sector for risk protection and relief against distress, misfortune and other contingent events."

- Philippines Insurance Commission, 2010

Source: Black, J (2015). Actuaries in microinsurance 1st ed

What is Microinsurance?

International Development Agencies' Point of View

"The protection of low-income people against specific perils in return for regular premium payments proportionate to the likelihood and cost of the risk involved"

- Preliminary Donor Guidelines, Microinsurance Network, 2003

"A mechanism to protect poor people against risk (accident, illness, death in the family, natural disasters, etc.) in exchange for insurance premium payments tailored to their needs, income and level of risk."

- International Labour Organization, 2008

Source: Black, J (2015). Actuaries in microinsurance 1st ed

What is Microinsurance?

Providers' Point of View

"Microinsurance plans provide protection to individuals with low income offering benefits such as affordable premiums, a wide range of benefits targeting multiple needs and no medical examination prerequisites."

- Britam, Kenya, 2014

"Microinsurance offers protection against the risks in life, specifically for low-income people in developing countries and emerging markets, with customized products and processes.."

- The Allianz Group, 2013

Source: Black, J (2015). Actuaries in microinsurance 1st ed

What is Microinsurance?

Poor	Low Income	Insurance

"Protect yourself, your family, your employees or group members with insurance coverage at minimal cost"

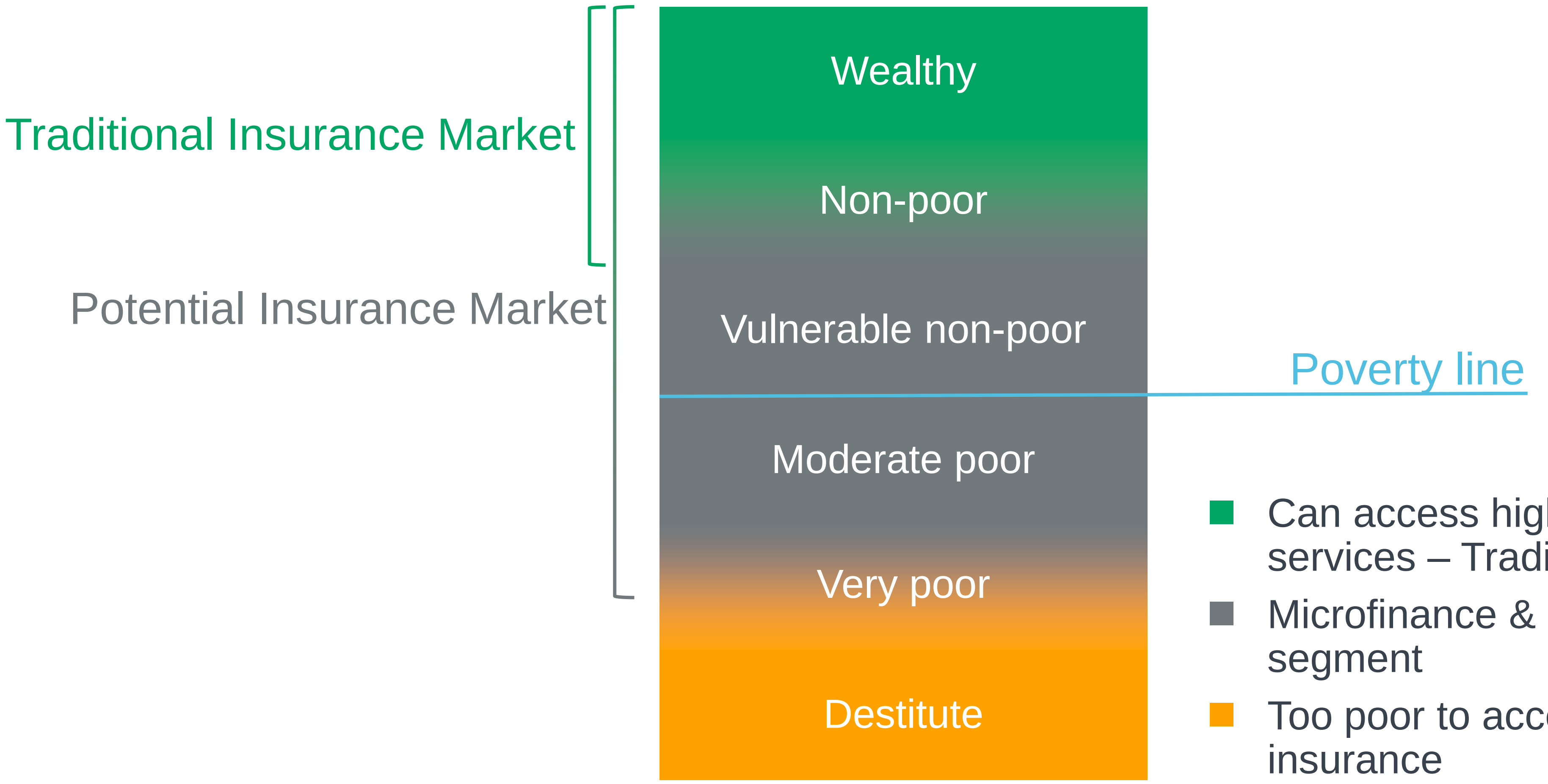
- Pioneer Insurance in the Philippines

Defining Poverty

Extreme / International poverty line	• US$1.90 PPP/day
Lower middle IC poverty line	• US$ 3.20 PPP/day
Upper middle IC poverty line	• US$ 5.50 PPP/day

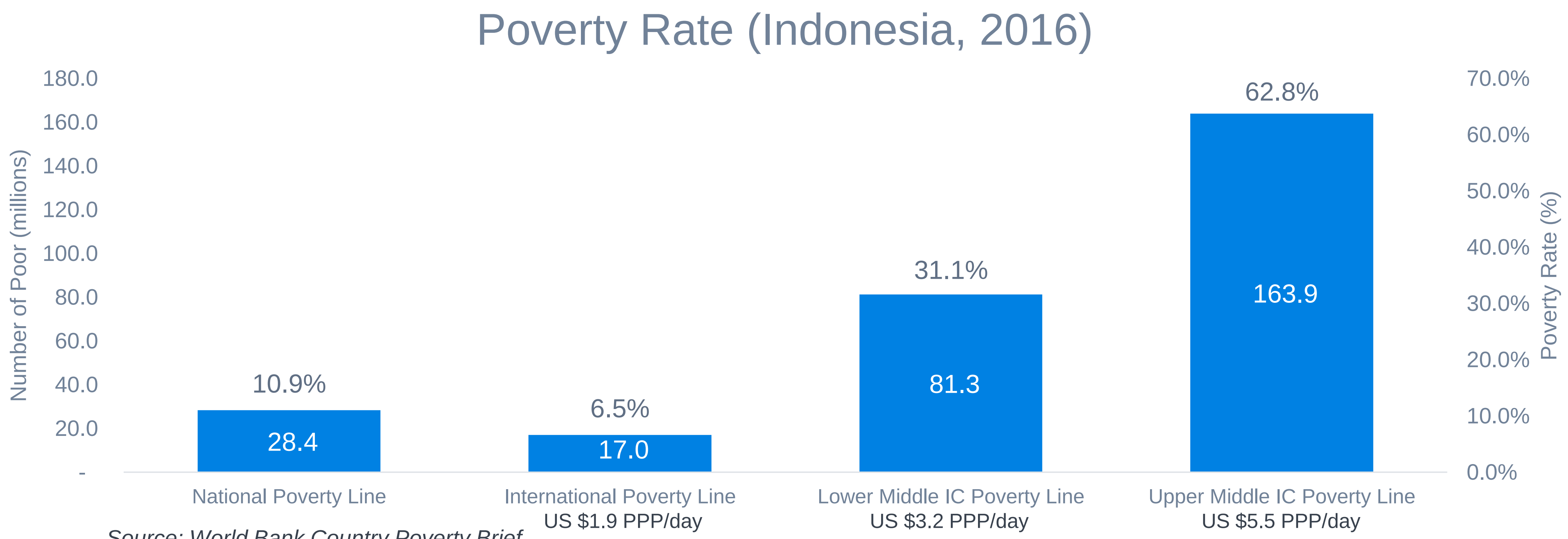
Source: World Bank Country Poverty Brief

Defining Poverty



- Can access higher level financial services – Traditional insurance clients
- Microfinance & Microinsurance target segment
- Too poor to access Microfinance or insurance

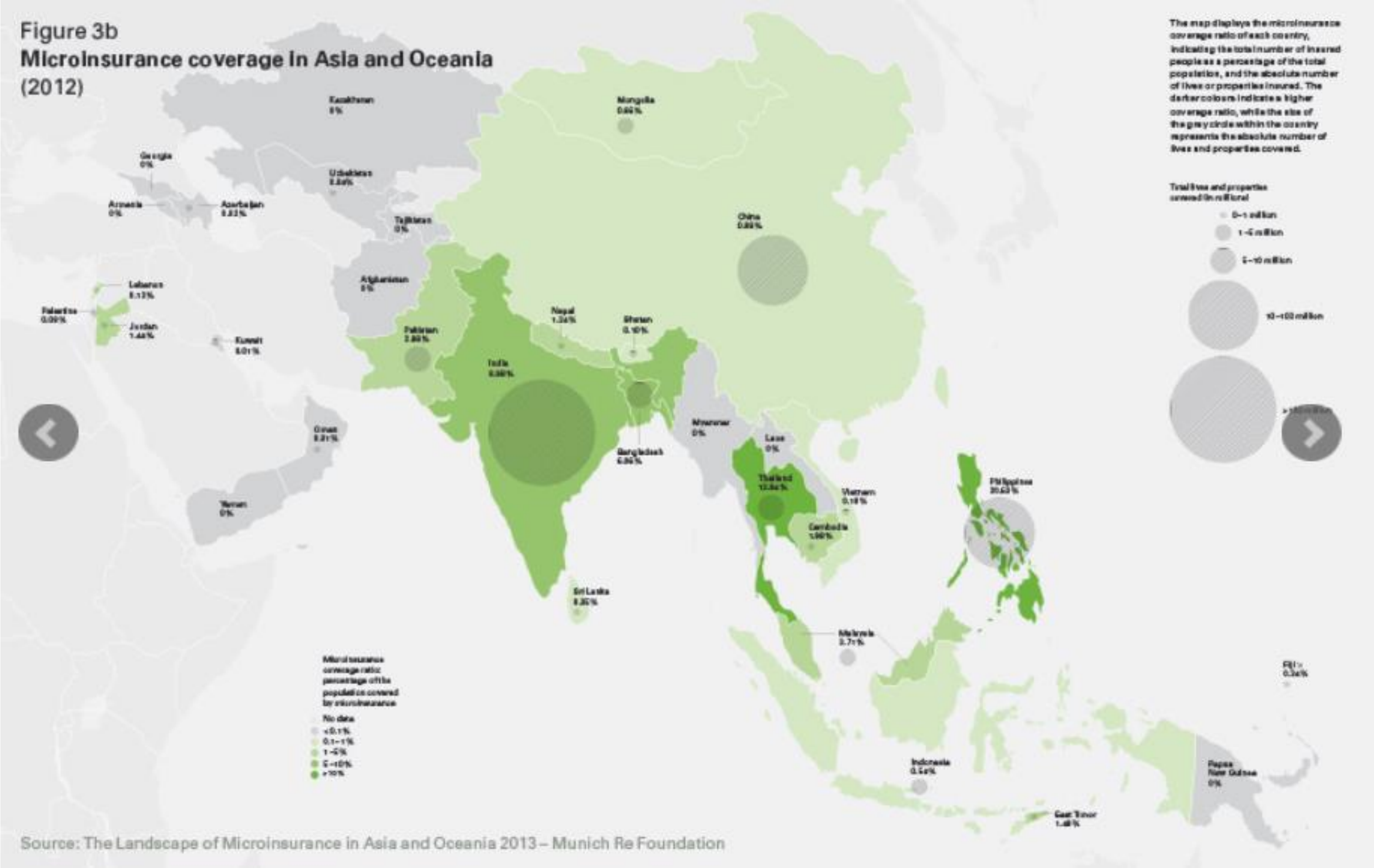
Defining Poverty



Source: World Bank Country Poverty Brief

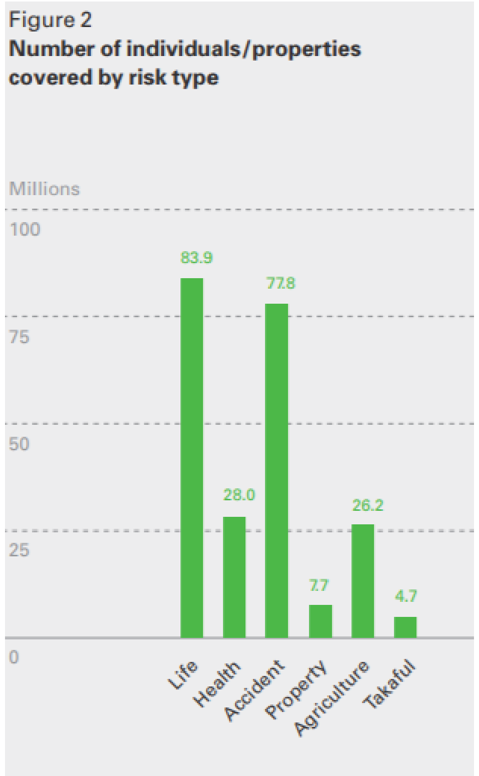
Note: “National Poverty Line” is the amount of money required to obtain 2,100 calories per day, along with a small amount for other basic non-food items.

Microinsurance Landscape – Asia and Oceania



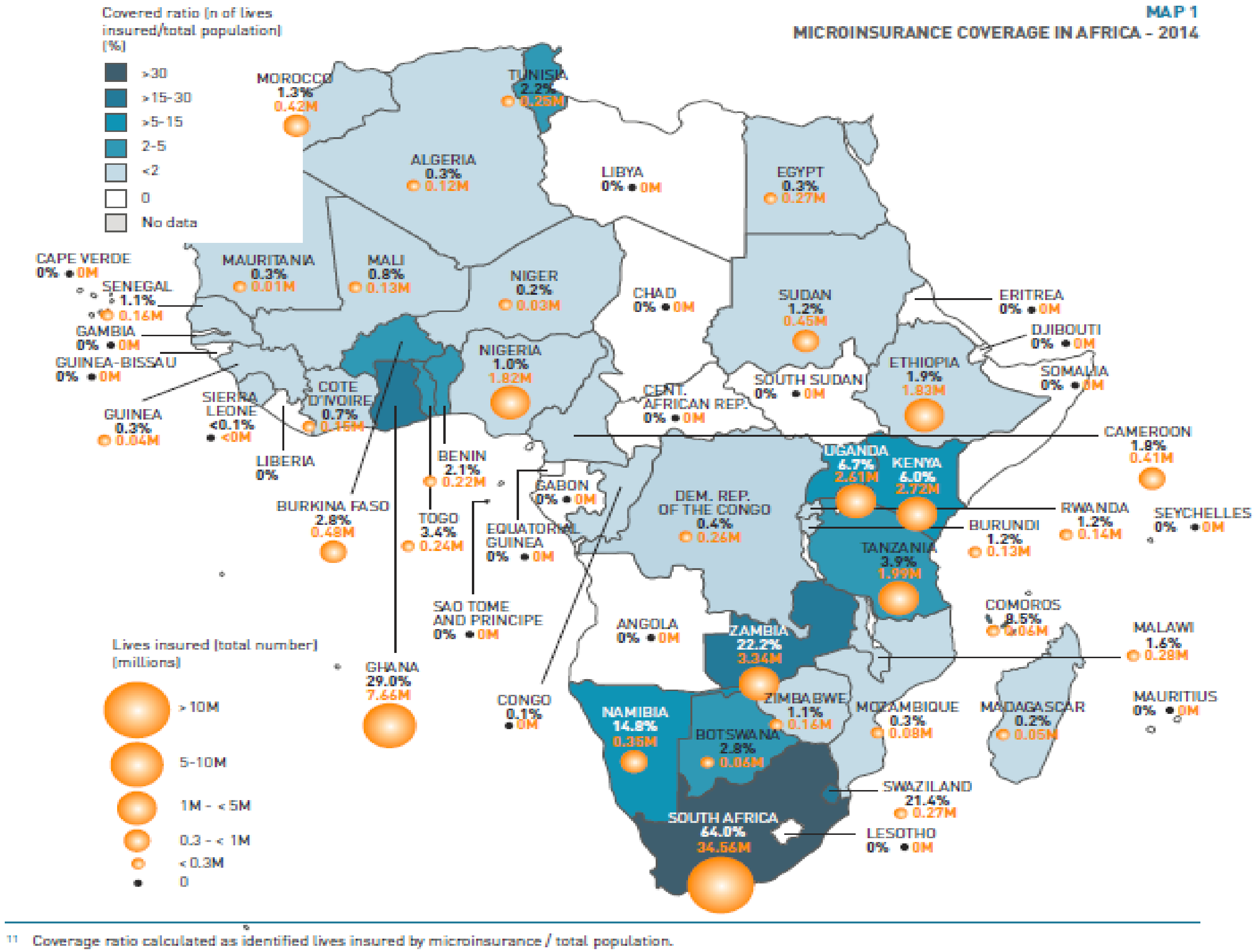
Lives Covered: 172 m, 4% coverage ratio

GWP: USD$ 829 m



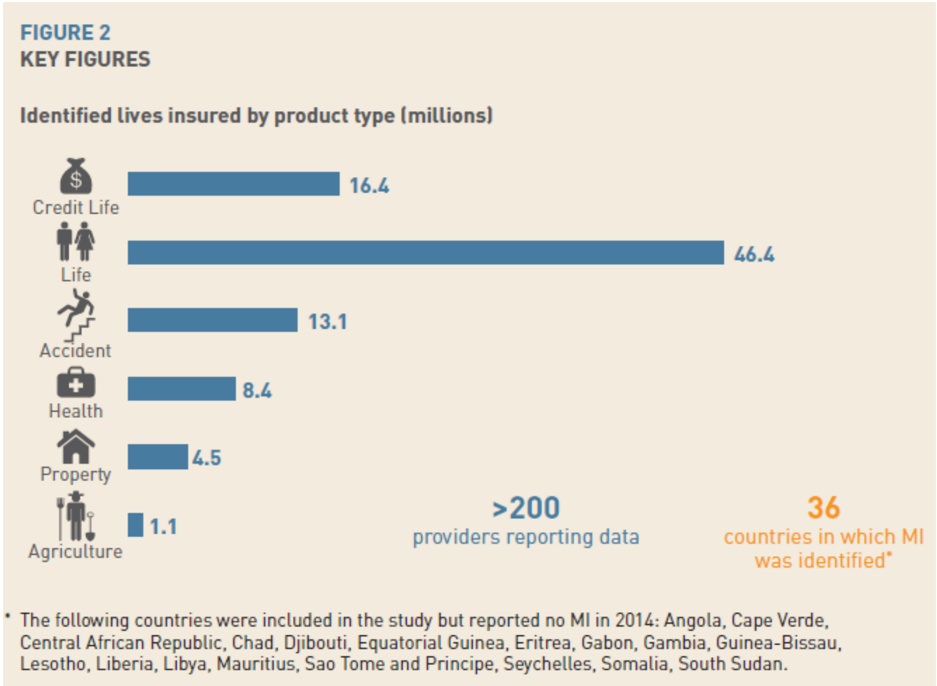
Source: Munich Re (2013). *The Landscape of Microinsurance in Asia and Oceania*

Microinsurance Landscape – Africa



Lives Covered: 62 m, 5% coverage ratio

GWP: USD$ 756 m



Source: Microinsurance Network (2015). *The Landscape of Microinsurance in Africa*

Technology and Insurtech

What is Technology?

The application of scientific knowledge for practical purposes, especially in industry

Machinery and equipment developed from the application of scientific knowledge

-*Oxford English Dictionary*

What is Technology?

Back End

Front End

Impact on Operations, Business Case and Client Value

Business case

- Reduce ongoing costs
- Reduce processing time
- Facilitate transactions where there could not be agents (mobile)
- Speed up claim settlement
- Improve client communications

Client Value

- Increased efficiency
- Improved access to information
- Availability of service
- Faster claims reporting
- Allows product flexibility

What is Insurtech?

"The use of technology innovations designed to squeeze out savings and efficiency from the current insurance industry model.

The belief driving insurtech companies is that the insurance industry is ripe for innovation and disruption.

Insurtech is exploring avenues that large insurance firms have less incentive to exploit, such as offering:

- **ultra-customized policies,**
- **social insurance, and**
- **using new streams of data from internet-enabled devices to dynamically price premiums according to observed behavior."**

Read more: Insurtech Definition | Investopedia
https://www.investopedia.com/terms/i/insurtech.asp#ixzz51dyrT6aj

Opportunities for Insurtech

- Market expansion
- Reduced administration costs
- Reduced acquisition costs
- Improved data management

Challenges for Insurtech

High-Level Challenges

- Insurance is a highly regulated industry with many layers of jurisdictional legal baggage to deal with
- Major companies have survived this long by being incredibly cautious – have shied away from start-ups
- Many insurtech startups still require the help of traditional insurers to handle underwriting and manage catastrophic risk.
  - With a refined model and a user-friendly approach, they may find that the incumbent players warm to the idea of insurtech and become interested in buying up some of the innovation

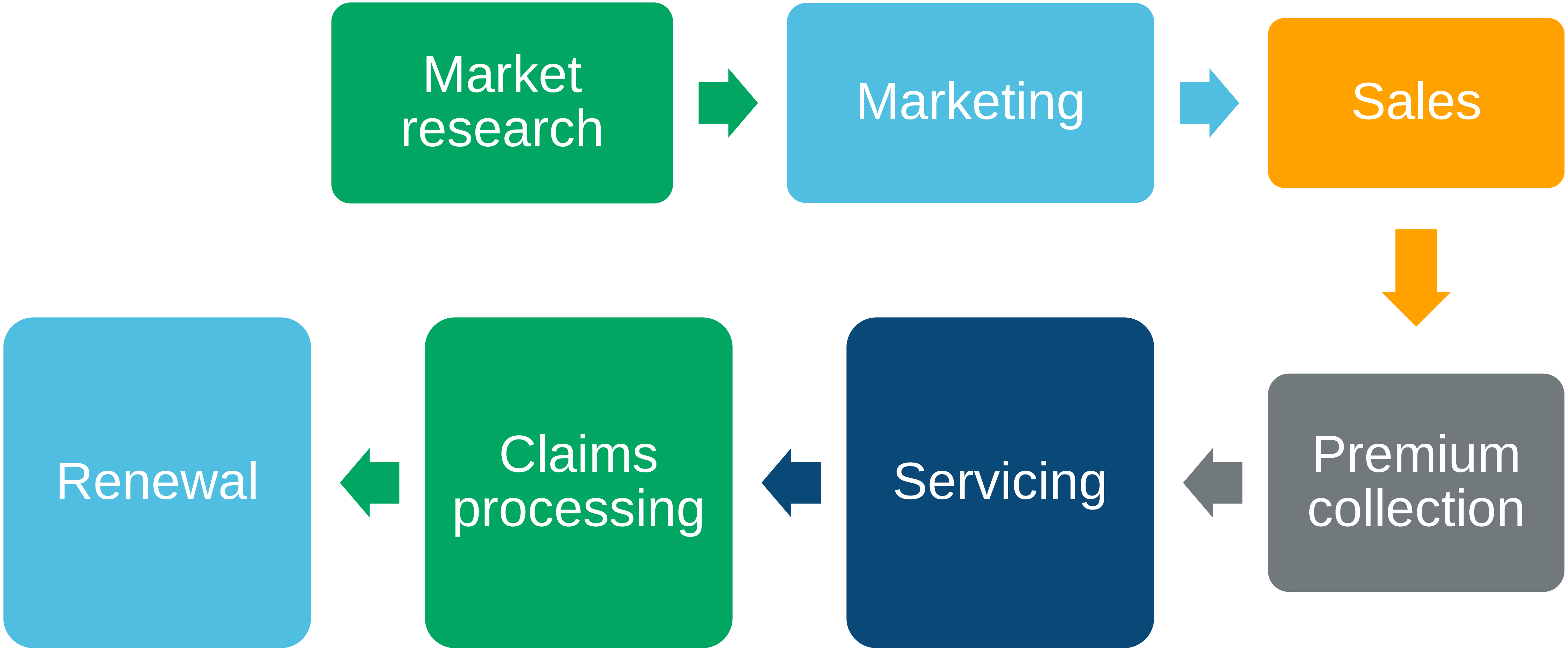
Read more: Insurtech Definition | Investopedia
https://www.investopedia.com/terms/i/insurtech.asp#ixzz51dyrT6aj

Challenges for Insurtech

Day-to-Day Practical Challenges

Market acceptance	Market access	Initial costs	Reluctance of insurers
Incompatibility with distributors	Legacy systems too heavy for new MI products	Issues with client identification	Multiple systems that don’t talk correctly to each other
Too low-touch approaches in m-Insurance	Use of technologies unfamiliar to clients	Difficulties to move from pilot project to scaled projects	Connectivity, system downtime

Product Life Cycle



Case Studies: Market research

Challenge

Over 2.7 bn people have no access to formal financial services but have a mobile phone.

Case Study

Cignifi (a big data platform) and World Savings & Retail Banking Institute partnered with HFC Bank and Airtel Ghana to explore the feasibility of call detail records (CDRs) and related data to develop new customer segmentation models. Cignifi reviewed, cleaned, and uploaded CDR data from Airtel and customer data from HFC. They created customer profiles and lifestyle models from HFC data, matched datasets, and created cross samples. Finally, they analyzed the data to create segments and scores.

Opportunities

- Translating mobile phone data into customer profiles for market research.
- Develop credit-risk and marketing scores for consumers using call detail records (CDRs).
- Understand pre-pay mobile customers better and offer credit cards, personal loans, insurance and savings to them.

Case Studies: Market research

Results

The analysis produced five mutually exclusive and distinct clusters based on:

- account balance;
- deposit frequency;
- customer age.

Cluster	Name	Description	Number of Accountholders	Percentage of Overall Accountholders
1	Wealthy & Engaged	Older, high balance, active savers	20,421	19%
2	Wealthy but Inactive	Older, high balance, non-savers	20,673	19%
3	Youth Accounts	Young, some balance & activity	20,297	19%
4	High Utilization	Low balance, active savers	14,816	14%
5	High Churn Risk	Low balance, non-savers	30,016	28%
	TOTAL AVERAGE		**106,223**	**100%**

Figure 10: Description of Five Accountholder Clusters[7]

What happened next?

Cignifi concluded that customers with a:

- high level of engagement; and
- low balance

should be focused on.

Customers with “Youth Accounts” and “High Utilization” clusters match these two criteria most closely.

Case Studies: Marketing

Challenge

Clients’ understanding and recall of the product(s) is very low.

Background

Crezcamos and insurer MAPFRE Colombia together began offering a voluntary crop insurance product to farmers in 2014. The product covers natural disaster risk for a variety of crops that are common in the region. In an effort to improve clients’ understanding and increase take-up, Crezcamos, Mapfre, and a research team developed a brief video on the crop insurance. This video was installed on loan officers’ company-provided smartphones. The three-minute video explained the terms of the insurance product in a simple and highly visual manner and included a brief testimonial from a claimant.

Case Studies: Marketing

Opportunity

- Standardise the sales process.
- Help loan offices explain a complex new product to their clients.
- Consumer protection: by explaining the price, coverage, government subsidy, and benefit amount and marketing functions
- Marketing function: convince them of the product’s value

Results

- Loan officers and clients considered the standardized sales protocol useful and effective in delivering information about a highly complex product effectively.
- Clients made a voluntary and informed decision to purchase
- Clients understood the events covered, the deductible portion not covered, the government subsidy, the process for enrolling and that an assessment would take place in case of claim

Case Studies: Sales/Enrollment

Challenge

Manual enrollment process with resulting encoding errors, delayed access to information and customer service handling.

Background

In 2013, CARD Pioneer Microinsurance (CPMI) offers several products along life, accident, and property lines and utilizes innovative distribution channels such as pawn shop Cebuana Lhuillier. CPMI also employs over 1,000 microinsurance agents who assist clients with the enrollment process. CPMI decided to automate the enrollment process. In addition to addressing the problems with the manual process, CPMI's goal was also to increase enrollment volumes across its microinsurance lines.

Opportunities

- Use smart phones programmed with a custom enrolment software.
- Address the problems with the current manual process.
- Increase enrollment volumes across its microinsurance lines.

Case Studies: Sales/Enrollment

Results

- Agents experienced problems with connectivity, especially in more remote areas
- Agents did not fully understand how to use the smart phones
- Distrust of the smart phones.
- No structure in place for them to seek help or training from CPMI

What happened next?

CPMI relaunched the enrollment process: Reworked the processes with inputs from the agents

- Held “Techie Nanay” workshops on how to use a smart phone
- Pioneer owned the support structure
- Managed connectivity by building in offline capability and access to internet at the offices
- Set up a buddy System for peer to peer support

Case Studies: Servicing

Challenge

Customers forget whether they purchased the product.

Case Study

BIMA Cambodia and SMART offer two products to SMART's customers: life insurance and hospital cash. Despite having a high uptake, claims ratios are very low for both products from very few clients making claims. When investigating this issue, the following problems were identified:

- clients and their families would often forget they had the insurance product,
- there was low comprehension of product features

Opportunity

- To remind people that they have a policy
- Inform them how to make a claim

Results

- Higher trust in the insurer
- Higher customer numbers

Case Studies: Claims Processing

Challenge

High claim costs due to moral hazard and fraud.

Case Study

IFFCO-Tokio General Insurance Co. Ltd. (ITGI) designs a cattle insurance product through Cooperative Bank or Cooperative Credit Societies. The product covers death of the insured cattle and the premium is 3 – 4% of the sum assured, or value of the cattle. The insured animals are identified through ear tags, which are easily lost or removed.

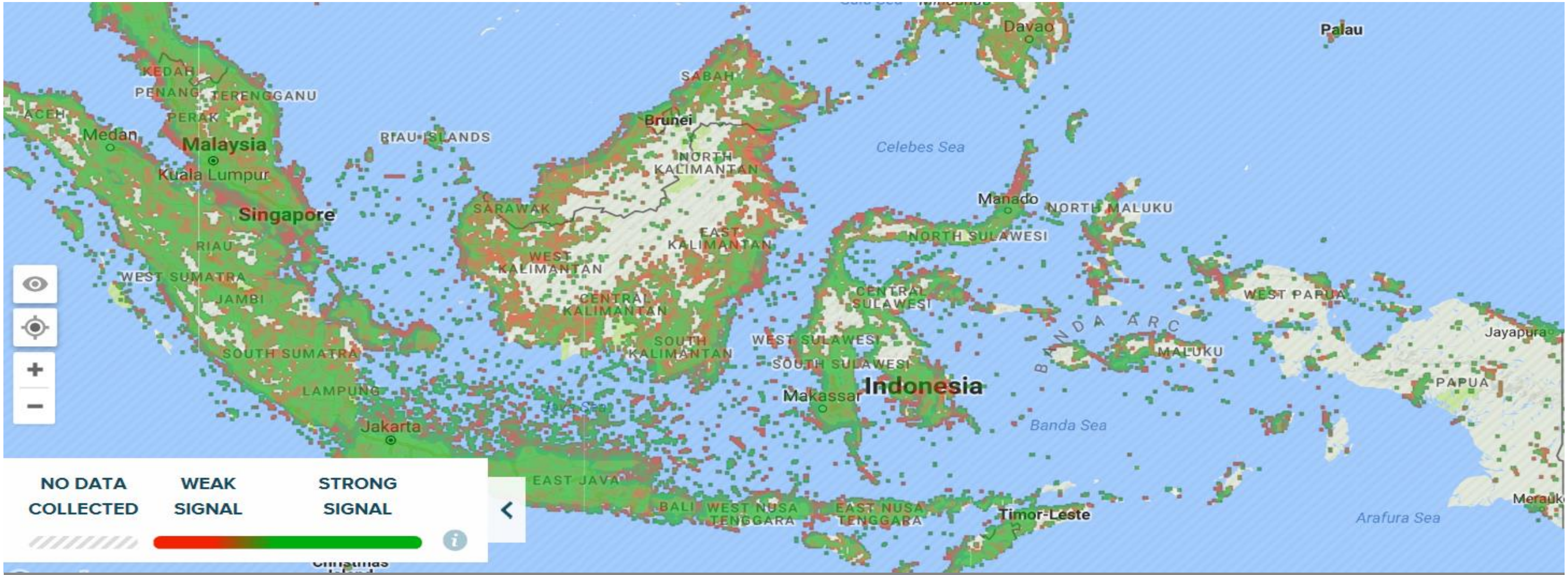
Opportunities

- Using an identification device based on radio frequency identification RFID

Results

- Quicker claim settlements with reduced fraud
- Educated farmers about the benefits of the RFID technology and used it as a marketing advantage.
- RFID chips are less painful and are more secure than plastic tags.
- Potential to store medical information about the animal on RFID chips.

Mobile Phone Coverage in Indonesia



“4G is very accessible in Indonesia, but once accessed, speeds aren't very fast”

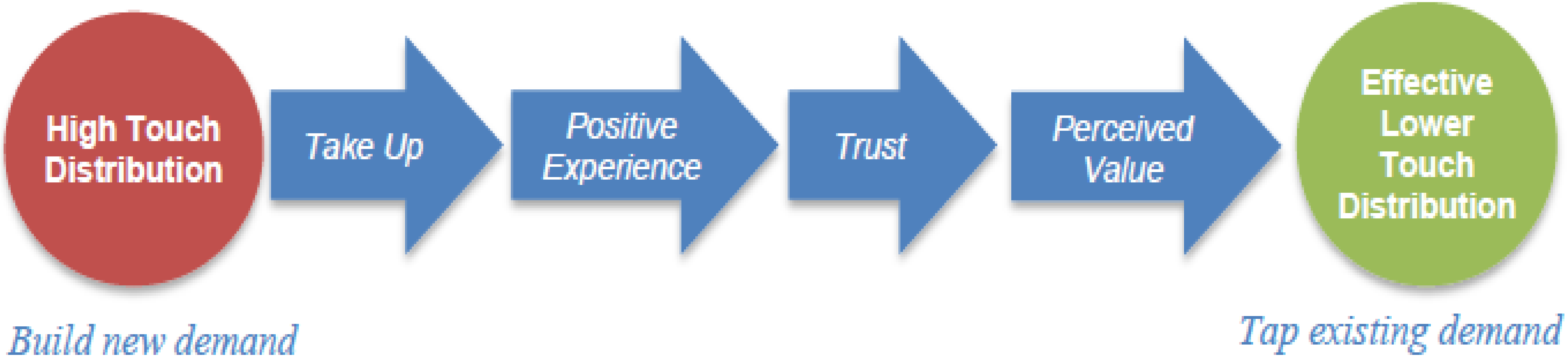
Source: OpenSignal

Technology v Touch

- “Touch level” is “the nature and extent of a company’s interaction with the buyer and / or end user”. It is considered an integral part of the customer experience for a variety of products and services.
- The “touch” level of a sale is determined largely by the amount of time spent with a prospective client explaining the product and any choices the client may make. It is also determined by the atmosphere in which the sale occurs and by whether the client or the sales staff initiates the conversation.
- Insurance sales spectrum: extremely low touch or “no touch” to very high touch

Technology v Touch

Figure 1: Possible progression from high- to lower-touch distribution



MicroInsurance Centre at Milliman aims "to get SUAVE microinsurance products in the hands of 3 bn low-income people across the globe"

Simple Understood Accessible Valuable Efficient

Milliman

Timeline: MicroInsurance Centre at Milliman

1994	2000	2000 - 2017	**2017**	2018
Developed first commercial MI product	Founded the MicroInsurance Centre	Increasingly recognized as int'l thought leader in MI, projects in more than 70 countries	MIC joins Milliman and becomes MIC@M	Paving a path for the future with Milliman – internally & externally

AIG

MICRO INSURANCE CENTRE

MicroInsurance Centre at Milliman

Questions?

Thank you

Brian Colgan
Brian.Colgan@milliman.com
+65 6327 2315

Milliman