

INTRODUCTION

Our recent report, <u>Innovation in Insurance</u>, documented technology-driven changes underway in the insurance industry. One exciting implication of these advances is the potential to increase coverage for low-income customers. Historically, it has been difficult for insurers to service low-income communities, especially in developing countries, due to a variety of factors, including pricing complications, moral hazard, elevated expense ratios, asymmetric information, and adverse selection. This is beginning to change. Thanks to innovation—primarily new data technology and the spread of mobile phones—there is a new opportunity to make insurance more accessible to uninsured and underinsured populations (UUPs).

RISK TRANSPARENCY

The industry's growing capacity to use technology to measure, monitor, and analyze valuable data continually and in real time is facilitating a more comprehensive understanding of risk. This is providing opportunities for insurers to underwrite policies that could not have been covered profitably in the past, offer personalized premiums, and create and modify new products over time. Insurers are now able to expand insurability to new segments of the population.

As data technology improves, insurers will be able to provide even greater customer segmentation, resulting in products and services that better address the needs of underserved groups, including those with chronic health conditions, migrants, and small farm owners. For example, individuals suffering from chronic health conditions like diabetes and high blood pressure are likely to encounter high premium costs that may be prohibitively expensive for low-income populations. Thanks to technological advancements, individuals could qualify for lower premiums by engaging in healthy habits and allowing their insurer to monitor their activity. Already, wearable biometric sensors like FitBits are used, enabling insurers to observe their policyholder's exercise activity and vital signs. Soon, smart contact lenses will be capable of monitoring glucose levels, and ingestible sensors will be able to track medicine and food consumption.

POCKET INSURANCE

Mobile phones are also becoming increasingly important to the insurance business model, allowing consumers to sign up for certain products, insurers to collect premiums, and for the acceleration of claims verification, processing, and distribution. This reduces the need for brick and mortar offices and employees, and makes physical barriers and distances less of an obstacle to servicing customers—resulting in lower distribution and operational costs, improved scalability, faster service, and ultimately more affordable and accessible products for UUPs.

Mobile phones are facilitating greater customer engagement as well. According to Christof Mascher, COO, Allianz, "How to get to a higher frequency of interaction with customers was always a big challenge for insurers. The digital age has brought us countless opportunities and frequent touch points." With advances in mobile technology, phones are playing an increasingly important role in these company-consumer connections. For example, insurers can send text reminders to policyholders to update account details to ensure continued protection or push personalized communications to customers when they are more likely to need a plan, such as during travel. Through more frequent interactions and better engagement, insurers can build stronger relationships with policyholders, increase customer satisfaction and retention rates, improve the public's perception of insurance products and services through word of mouth, and ultimately increase the demand for coverage among UUPs.

Mobile technology is also enabling the spread of on-demand tailored insurance. Individuals can now purchase personalized coverage for specific durations and items in real time. Customers cover what they want, when they want, for however long they want. This makes insurability more accessible to a larger segment of the population as it allows people who could not afford traditional blanket and long-duration policies to benefit from more affordable and customized insurance products delivered in real time to their phone.

Mobile Microinsurance in Emerging Markets

In emerging markets, the distribution of microinsurance via mobile phones has multiplied quickly over the past ten years in tandem with the rapid proliferation of mobile devices. In 2014, Accenture estimated the number of insurance products delivered via mobile channels in emerging economies to have already reached around 100, with 54% of them in Sub-Saharan Africa, 23% in South Asia, 20% in East Asia, and 4% in Latin America. Many of these mobile-based products are provided through partnerships between foundations, tech and telecommunication companies, distributors, and insurance firms.

Two big players dedicated to mobile microinsurance distribution in emerging economies are <u>MicroEnsure</u> and <u>BIMA</u>, who have registered 43 million and 20 million customers, respectively, across more than 17 countries, including in Africa, Asia, South America, and the Caribbean. According to Peter Gross, marketing director, MicroEnsure, "Most people in the world are low income. Five [billion] out of the world's seven billion people live on an average of three to four dollars per day. And these people are disproportionately exposed to risk." By leveraging mobile technology, companies such as these are having a meaningful impact on low-income communities around the world as they provide opportunities to many people who are not part of the formal financial system to obtain important coverage for the first time in their lives—90% of BIMA policyholders, for example, have never had access to other insurance. This is a powerful and important development because it helps provide a safety net for millions of people that are especially vulnerable to unforeseen emergency expenses.

One customer segment that is particularly vulnerable to risk is small farm owners, and several initiatives are prioritizing ways to link farmers with insurance products through mobile technology. In East Africa, for example, Acre Africa—a company that evolved from the Kilimo Salama crop insurance project—helps, in partnership with local insurers, mobile operators, agribusinesses, and other stakeholders like Swiss Re, provide farmers with protection against crop damage due to climatic risks such as drought and excessive rain. Farmers who purchase sacks of seeds from participating seed stockists will find a card with a code in their bags. To activate coverage, a farmer only needs to send one SMS which provides the date and geolocation of the farmer. This information is then matched with the closest weather station and a confirmation text is sent to the farmer with details of coverage and a policy number. If the nearest weather station reports extreme weather within a predefined period, the farmer receives an automatic bank transfer to her M-Pesa account. Technology is vital to the scalability of the business model and the microinsurance product's affordability. According to Acre Africa's website, as of last year, the company has helped over 800,000 farmers across Kenya, Rwanda, and Tanzania insure nearly \$650 million-worth of property against a variety of weather-related risks.

Major multinational insurers are becoming increasingly active in providing coverage to previously uninsured low-income populations, thanks in large part to recent advancements in mobile technology that make servicing this enormous, but low-margin, market more financially viable than in the past. According to a paper released by the <u>Insurance Information Institute</u>, in 2005 only seven of the world's largest insurance firms were involved in microinsurance; in 2011 there were 33. Today, approximately 60 insurers, including AIG, Allianz, AXA, MetLife, and Zurich, have microinsurance projects in operation. Meanwhile, a survey by the Munich Re Foundation and the International Labour Organization, a tripartite UN agency based in Geneva, found that the number of individuals covered by microinsurance rose from 78 million in 2007 to 135 million two years later, and to

half a billion people by 2012—an increase of more than 500% over half a decade. Michael McCord, President of the MicroInsurance Centre—a U.S.-based consulting firm dedicated to generating access to valuable microinsurance products to three billion low-income people across the globe—told the IIF that today there are approximately 600 million people with such coverage.¹ And while the rate of growth has slowed, it remains impressive and impactful. According to BSR (Business for Social Responsibility), a global nonprofit organization, microinsurance coverage can "alleviate poverty, improve health outcomes, increase the economic inclusion of vulnerable populations, and even lessen the human impacts of climate change."

EMERGING TECHNOLOGIES

Other technologies that have the potential to significantly impact UUPs—though in the longer-term—include artificial intelligence and blockchain. Thanks to its ability to independently gather, process, and analyze enormous amounts of data quickly and effectively to make informed decisions, AI could help insurance companies automate processes and reduce operational costs so that it becomes more economically viable and profitable to provide products and services that are affordable to low-income segments of the population. Moving forward, as the technology improves, AI could help enable both large and small insurance firms to offer services at a level of sophistication, customization, and scale never previously possible. Similarly, blockchain could also increase automation and lower the cost of providing insurance. For example, the technology could increase efficiency by automating identity validation. This would help address a key concern facing insurers when providing microinsurance in emerging markets—the lack of reliable ID papers among the population. In addition, by providing a universal source of truth that is tamper-proof, blockchain could also lead to increased efficiency—resulting from a reduction in human error, fraud, data duplication, processing delays, transaction and administrative costs, and opaqueness—ultimately benefiting the end-consumer with better service and lower premiums. Moreover, the technology could enable individuals to purchase smart insurance contract products on their mobile phones that automatically deliver claim payouts when a pre-determined condition is verified by an external data source. This could potentially help remove the need to file claims. Because a smart contract eliminates costly human intervention once it has been deployed onto a distributed ledger, several experts claim that insurance companies could reduce operating costs, resulting in potential savings to their customers. The technology is actively being explored for use in the industry, and already, Saldo.mx, a Mexican mobile payments company, has debuted Consuelo, a blockchain-powered microinsurance initiative that focuses on providing coverage to migrants.

^{1.} Please visit the MicroInsurance Centre <u>website</u> for more information on microinsurance in emerging markets.



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