Capgemini

Top-10 Trends in Life Insurance: 2018

What You Need to Know

Contents

Introduction

Like most insurance sectors, life insurance is navigating its way through a wave of new digital technologies. The rapid evolution of InsurTech capabilities is driving life insurance firms to nimbly adapt to a market that is changing more quickly than ever. What is driving these changes? Intensifying competition, margin pressures, advances in technology, and evolving customer preferences. Not to mention, customer engagement metrics are shifting as consumers seek digital touchpoints, convenience, agility, and personalization.

As detailed in the World Insurance Report 2017, the InsurTech phenomenon has moved from being a buzzword to becoming a potent insurance business disruptor. Emerging technologies, such as digital tools (wearables, automation, and blockchain) and advanced analytics, are acting as the catalysts of the InsurTech revolution and driving myriad innovations that insurers can tap into to reinvent their businesses.

The stream of new technologies finding applications in the life insurance industry includes gamification, Robo advisors, automation (RPA, AI), blockchain, analytics, and cloud. These technologies have significant potential to streamline insurers' operations while enhancing customer experience.

Technologies such as gamification, wearables, and robo advisors are being leveraged by life insurers to increase customer engagement, enhance brand awareness, and provide greater convenience and personalization. With InsurTech capabilities, such as digitization and advanced analytics, life insurers are able to develop more granular policies thus making it affordable to mass population as well as more appealing to millennials who are used to on-demand services.

By leveraging automation techniques, life insurers are increasingly automating their core processes and enhancing their BPO strategy. With advanced analytics, life insurers are better able to analyze the current and future needs of the customers to develop personalized offerings. Artificial intelligence (AI) is enabling life insurers for fraud detection and prevention. To gain InsurTech capabilities, which are expected to be the game changer as they are disrupting the way life insurance offerings are structured and delivered, life insurance firms are focusing on inculcating the InsurTech capabilities by either by partnering/collaborating or acquiring InsurTech firms or by developing in-house capabilities.

Table 1: Business Impact of the Top 10 Technology Trends in Life Insurance

Trend	Revenue Growth	Cost Optimization	Enhancing Customer Engagement	Risk Reduction	Improving Pricing Accuracy	Reducing Claims Leakage
Gamification to increase customer engagement	Medium	Low	High	Medium	Low	Low
Wearables to redefine customer engagement metrics	Low	Medium	High	High	High	Medium
Robo Advisors to provide greater convenience and insightful recommendations to customers	Medium	High	High	Low	Low	Low
Automation (RPA and AI) for operational efficiency and enhanced customer experience	Medium	High	High	Medium	High	High
Blockchain based smart contracts for claims processing	Low	High	Low	Medium	Low	High

Source: Capgemini Financial Services Analysis, 2017

Trend	Revenue Growth	Cost Optimization	Enhancing Customer Engagement	Risk Reduction	Improving Pricing Accuracy	Reducing Claims Leakage
Predictive analytics to develop personalized offerings and optimize closed books	High	Medium	High	High	High	Medium
Advanced analytics and AI for fraud detection and prevention	Low	High	Low	Medium	Low	High
InsurTech capabilities to explore new revenue streams and value-added services to customers	High	High	High	Medium	High	Low
Life insurers are exploring multiple approaches for gaining InsurTech capabilities	High	High	Medium	Medium	Medium	Medium
Leveraging cloud for better agility and scalability	Medium	High	Medium	Low	Low	Low

Trend 01: Gamification Gains Traction as a Customer Engagement Tool

Gamification is gaining traction among life insurers as a tool to engage with customers (especially Gen Y or millennials) as well as to increase brand awareness and create new products

Background

- Life insurers are leveraging gamification techniques for information dissemination and customer engagement, particularly with young customer segments such as Gen Y or millennials,[1] who are considered more tech-savvy
- Gamification is a powerful lever for life insurance firms and agents seeking to enrich digital experiences and adopt new customer-centric business models
- Gamification is being adopted by life insurers to differentiate themselves from the competition and to create more interactive experiences with their customers and prospects

Key Drivers

- Increasing customer demand for more information and more frequent interaction with life insurers is increasing the need for insurers to be more engaged with customers
- As gamification is gaining traction among younger and tech-savvy customers, life insurers are leveraging gamification to explain the complex life insurance products and spread awareness about insurance

Exhibit 1: Components and Benefits of Gamification
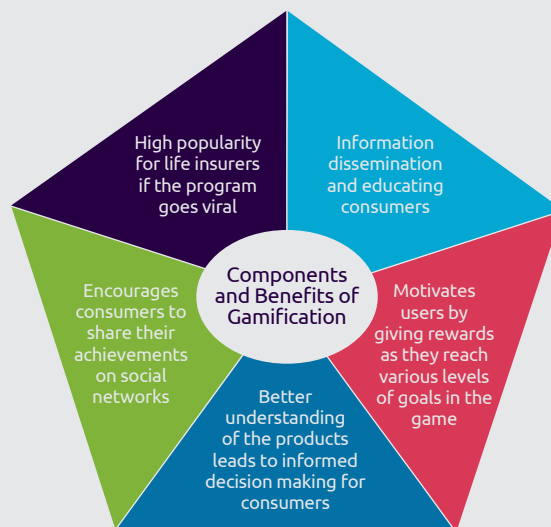
Source: Capgemini Financial Services Analysis, 2017

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1   Millennials or Gen Y: Born 1977 to 1995

Trend Overview

- Gamification plays an important role in information dissemination, increasing trust, new customer acquisition, and enhancing customer retention
- Insurers are leveraging gamification to increase brand awareness and gain popularity. For instance:
  - AXA group has launched a game in Indonesia where insurance penetration is less than 2% because of a lack of understanding about insurance products and their importance
  - AXA created a game, CrazyCash, to enhance insurance education. The game became a huge success generating 200,000+ Tweets:
    » After five weeks, the game had 30,000 unique Twitter users, over 55,000 plays and 225,000 page views on the AXA website
  - The players have also shared their scores on Facebook, which increased the popularity of the brand[2]

Implications

- Gamification can help to educate customers about the benefits of life insurance by applying gaming elements to explain intricate product details in a way that inspires customers to adopt or purchase
- Gamification helps to create brand awareness and affinity while convincing consumers to buy insurance products to hedge risks

2   "Gamification case study: AXA online game educates customers on insurance fund", Digital Training Academy, accessed October 2017 at
    http://www.digitaltrainingacademy.com/casestudies/2015/03/gamification_case_study_axa_online_game_educates_customers_on_insurance_fund.php

Trend 02: Wearables Help Redefine Customer Engagement Metrics

Adoption of wearables and other sensor-based devices are enabling life insurers to redefine customer engagement metrics
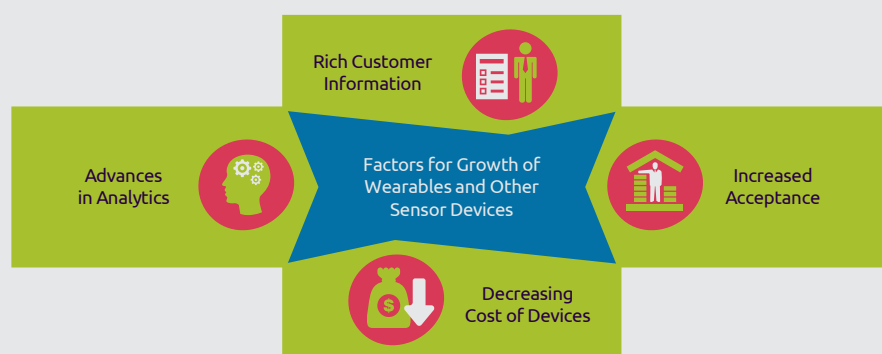
Background

- Wearable devices are gaining popularity across industries as they provide immense opportunities to gather relevant real-time data and improve business decisions
- Wearables can be used in life insurance as a customer engagement tool and for more accurate underwriting of risks based on real-time customer data, and also in improving customer's mortality

Key Drivers

- Wearable devices have gained huge popularity in the last few years, and it is expected that the wearables market will grow at a CAGR of 15.5% from 2016 to 2022 to reach $US51.6 billion by 2022[3]
- Real-time customer data offers life insurers the opportunities for a higher level of interaction with customers and creation of more personalized offerings as well as improve life expectancy by collecting and analyzing physical activity and health data
- Some of the life insurers have already started offering policies that reward policyholders who record and share their physical activity using wearable devices and more insurers might offer similar products in the next couple of years with intensifying competition and evolving customer preferences

Exhibit 2: Factors for Growth of Wearables and Other Sensor Devices

Rich Customer Information

Advances in Analytics

Factors for Growth of Wearables and Other Sensor Devices

Increased Acceptance

Decreasing Cost of Devices

Source: Capgemini Financial Services Analysis, 2017

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3   Wearable Technology Market worth 51.60 Billion USD by 2022", Markets and Markets, January 25 2017, accessed October 2017 at
    http://www.marketsandmarkets.com/PressReleases/wearable-electronics.asp

Trend Overview

- Wearables and other sensor-based devices generate huge amounts of customer data that life insurers can use to generate insights for making informed business decisions and continuous monitoring of the customer:
  - This helps life insurers to better identify the lifestyle and life-stage needs of the already existing customers and attract new customers with more targeted products
- The real-time data generated should be combined with advanced analytics to generate insights:
  - The insights can be leveraged across the life insurance value chain for creation of more customized products (front office), accurate risk assessment and pricing (underwriting), and providing timely notifications that can improve life expectancy of customers
  - This will result in better customer engagement as life insurers have been at a disadvantage compared to other financial services firms including banks, as insurers' presence in customers' lives has been confined to relatively infrequent transactions such as policy renewals or policy changes
- Life insurance firms such as John Hancock and State Farm are engaging with their customers with the help of wearables and other sensor-based devices:
  - John Hancock had introduced a program named 'John Hancock Vitality' that allows customers to save money by obtaining discounts on life insurance policy premiums, and earn rewards for sharing fitness tracking device data and basic medical information[4]
  - State Farm introduced the Connected Care program to enable elderly relatives to stay independently in their home with the help of safety and monitoring systems, ultimately increasing life expectancy and avoiding emergency like situations:
    » The devices enable the users to send notification in case of any help or emergency
    » The medication sensors help the elderly in managing their day better by giving them reminders for important activities[5]

Implications

- By applying data analytics on the real-time data received from wearables and other sensor devices, life insurance firms can generate more granular insights to design and customize products based on the risk exposure to each customer
- Life insurers can specifically engage with their customers based on real-time information and manage notifications to control risk in the event of a sudden adverse health condition

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4   "The John Hancock Vitality Program", John Hancock website accessed October 2017 at https://jhrewardslife.johnhancockinsurance.com/
5   "Connected Care", State Farm website accessed October 2017 at https://www.statefarm.com/customer-care/life-events/smart-home-systems/connected-care

Trend 03: Use of Robo Advisors Being Explored

Life insurers are exploring the use of robo advisors for greater convenience and insightful recommendations

Background

- Robo Advisors have the potential to revolutionize life insurance sales process by providing personalized policy advice to the customers
- Unlike humans, they can process data in real-time from various sources to have a clear understanding of the customers' needs and insurance gaps
- Pre-defined scenarios can be handled by robo advisors and exceptional cases are routed to human agents

Key Drivers

- Advancements in AI systems, such as natural language processing and machine learning, and access to real-time data provides agility and robustness to robo advisors
- Customers are increasingly expecting lesser waiting times and seamless support for insurance advice and query resolution
- Robo advisors can ensure the availability and scalability of reliable customer support systems at a lower cost, which will have a positive impact on profitable growth

Exhibit 3: Key Benefits of Robo Advisors in Life Insurance Industry

Source: Capgemini Financial Services Analysis, 2017

Trend Overview

- According to Capgemini-Efma World Insurance Report 2017, robo advisors are gaining traction with 75.0% of the surveyed respondents viewing that insurers are already investing/ planning to invest in next three years in this technology[6]
- Robo advisors have the capability of providing personalized service to customers by understanding their needs and gaps from their inputs and other data available about the customer such as their previous purchase details, previous queries, credit score, etc. and provide tailor-made suggestions
- Depending on the outcome of the discussion, robo advisors can also underwrite the policy instantly and accept online payments. Policy-related documents are delivered via email and the customer is under insurance coverage immediately:
  - E.g., the insurance division of investment management firm Invisor has partnered with Teachers Life Insurance Society and introduced a digital insurance platform that provides robo advisory services. Leveraging the platform, customers can purchase life insurance policies online, tailored to their specific needs[7]
- The efficiency of underwriting process can be enhanced by robo advisors as they can determine the risk exposure of the customer more precisely by accessing data from various sources and using advanced risk prediction algorithms:
  - E.g., FinTech firm Certua has planned to roll out robo-life insurance service, which can identify risk exposure of a customer through various sources and underwrite policies based on customers' need and their risk[8]
- In addition to performing advisory and underwriting services, robo advisors can also perform the following functions:
  - Policy administration and servicing tasks such as policy renewals, policy cancellation, updating customer details, etc.
  - Claims processing can be handled by robo advisors and claims that pass pre-determined criteria can be approved instantly by robo advisors
  - Robo advisors can capture customer expectations and save them for further analysis

Implications

- Real-time processing of data from various sources by robo advisors results in quicker turnaround times in policy servicing activities
- Operations related to policy administration are free from human errors as they are automated
- Only exceptional cases are to be handled by manual workforce. Hence they can focus more on value-added services

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6   "World Insurance Report 2017", Capgemini, 2017 accessed October 2017 at https://www.worldinsurancereport.com/

7   "Robo-advisor announces digital insurance service", The Insurance & Investment Journal, May 11, 2017, accessed October 2017 at
     https://insurance-journal.ca/article/robo-advisor-announces-digital-insurance-service/

8   "Robo life insurance startup Certua to launch in UK", Finextra, April 26, 2017, accessed October 2017 at
     https://www.finextra.com/pressarticle/68987/robo-life-insurance-startup-certua-to-launch-in-uk

Trend 04: Life Insurers Leverage RPA and AI to Automate Core Processes

Life insurers are increasingly automating their core processes such as policy administration and policy servicing by leveraging technologies such as RPA and AI

Background

- Life insurers are focusing on automating their core processes, including policy administration and servicing, with robotic process automation (RPA) and artificial intelligence (AI) systems
- RPA systems can process structured data and AI systems are required if data to be processed is unstructured, such as images and emails. Certain processes in policy administration, underwriting and claims that handle customer data from various sources and various formats will require a mix of both RPA and AI systems

Key Drivers

- Due to advancements in technology, automation systems can capture and process huge volumes of structured and unstructured data from customers via connected devices, social media, and various other sources
- Most of the processes across life insurance value chain involve a lot of paper work, which requires more human labor. Hence, these processes take more time and are prone to human errors. Automation can digitalize the processes, thereby reducing processing time and minimizing human errors
- Policy and customer details reside in multiple systems operating in silos, which make compliance to changing regulations a challenging task. Automation can integrate the systems and facilitate better regulatory compliance
- Automation enables life insurers to provide personalized services to the customers
- Since there is reduction of margins due to increasing competition and low investment income, there is a business need for life insurance firms for process streamlining and cost optimization through automation

Exhibit 4: Key Drivers for Automation of Core Processes using RPA and AI

1. Availability of Huge Volumes of Data
2. Demand for Personalized Service
3. Demand for Quicker Processing Time
4. Need for Eliminating Fraud
5. Need for Process Streamlining
6. Need for Cost Optimization

Source: Capgemini Financial Services Analysis, 2017

Trend Overview

- According to Capgemini-Efma World Insurance Report 2017, AI and RPA are considered as top priorities by 63.2% and 69.0% of the insurers across the globe[9]
- In today's competitive environment, life insurers have to automate core business processes such as underwriting, policy administration and servicing, as well as claims processing for better customer service and cost optimization
- The key policy processes and systems that can be automated using RPA and AI include:
  - Policy Administration and Servicing:
    » Policy issuance, a document intensive process, can be automated by RPA and AI, which can reduce the turnaround times to a greater extent
    » Policy endorsements can be done in a quicker time by integrating policy administration systems and automating the endorsement process
    » Renewals and cancellations can be handled by RPA and AI systems, which can automatically send reminders for policy renewals and capture feedback during cancelations
    » If customer details/ policy details are changed, RPA systems can update all the required fields in the back-end systems
  - Underwriting:
    » Automated systems can underwrite tailor-made policies by doing a personalized risk and need assessment in a quicker point of time
  - Claims processing:
    » Automated claims processing can enable faster claims resolution and settlement and it can eliminate fraudulent claims more effectively with advanced fraud detection algorithms
    » E.g., early this year, Fukoku Mutual Life Insurance, based out of Japan, has replaced manual system with an AI system to calculate payouts to policyholders:
      › The AI system is also expected to increase productivity by 30% and give a return on its investment in less than two years
      › The system possesses cognitive technology that enables it to analyze and interpret all types of data including unstructured text, images, and so on[10]

Implications

- Leveraging automation, most of the customer transactions can be updated in real-time across databases, with greater speed and accuracy and at a lower cost. This will also help life insurers in regulatory compliance
- Automated back-end systems can handle omnichannel model more efficiently and give a seamless experience to customers
- Core systems such as underwriting and claims processing systems can be scaled up with less additional cost
- Customer communications can be personalized to a greater extent using automation techniques

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9   "World Insurance Report 2017", Capgemini, 2017 accessed October 2017 at https://www.worldinsurancereport.com/
10 "Japanese company replaces office workers with artificial intelligence", Justin McCurry, The Guardian, January 5, 2017 accessed October 2017 at
    https://www.theguardian.com/technology/2017/jan/05/japanese-company-replaces-office-workers-artificial-intelligence-ai-fukoku-mutual-life-insurance

Trend 05: Smart Contracts Disrupt Claims Process

Blockchain-based smart contracts have the potential to be a key game changer in processing claims, increasing transparency, and enhancing operational efficiency in the life insurance industry

Background

- Blockchain technology is a decentralized distributed ledger where each user in the network has a copy of the ledger and participates in confirming transactions independently, making the process highly transparent and immutable
- Distributed ledger technology enables the coding of simple contracts, also known as smart contracts, which execute automatically when certain predefined conditions on a blockchain are met
- Life insurers can potentially leverage blockchain technology to enhance operational efficiencies across the value chain, increase transparency and share data between stakeholders

Key Drivers

- The need for automatic initiation of life insurance claims and quicker claims processing during customer distress are key drivers for smart contracts' use
- Smart contracts reduce cost and increase operational efficiency by eliminating the role of third-parties
- Blockchain eradicates fraudulent claims because the process is transparent, maintains a centralized database across organizations, and takes consensus from all the parties
- Blockchain and smart contract technology can help replace life insurance silos via large-scale and open distribution networks that offer cost, connectivity, and transparency benefits

Exhibit 5: Blockchain Based Smart Contracts – Key Drivers
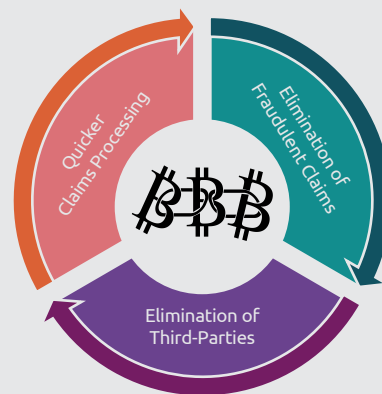
Source: Capgemini Financial Services Analysis, 2017

Trend Overview

- Many life insurers are focusing on blockchain, or distributed ledger technology, because it offers enhanced security and enables seamless data transfer:
  - Since blockchain platforms make it easy to share data between parties, it significantly increases transparency
- Several leading life insurers have joined the blockchain advisory council (formed by LIMRA) to explore blockchain-based solutions:
  - The advisory council includes members from AXA, MassMutual, Penn Mutual, John Hancock, Nationwide, Lincoln Financial Group, Northwestern Mutual, Pacific Life, and Principal Financial[11]
- A blockchain based smart contract is an insurance contract written in a code that automatically executes when a claim event occurs, on a multi-party shared network:
  - E.g., a hospital or a medical center might share information on the deceased to the government health department and the life insurer in parallel, for direct processing on their respective ends
- Many life insurance firms are currently testing blockchain-based applications in the life insurance market and may see increased activity and adoption soon

Implications

- Smart contracts enable automatic life insurance processing through input from death registries, which eliminates the need for claims initiation by dependents or beneficiaries
- Back-office transactions, such as reinsurance transactions, can also be automated using blockchain, which increases firms' operational efficiency
- With its highly-interoperable platform, blockchain technology has the potential to disrupt the life insurance distribution network by reducing costs

11 "LIMRA announces life insurance blockchain advisory council", The Insurance & Investment Journal, August 9, 2017 accessed October 2017 at
https://insurance-journal.ca/article/limra-announces-life-insurance-blockchain-advisory-council/

Trend 06: Predictive Analytics Spur Personalized Offerings and Closed-Books Optimization

Predictive and behavioral analytics enable better understanding of current as well as future customer needs. Analytics delivers actionable intelligence to operations, finance, and marketing functions for fast, measurable ROI

Background

- Using advanced decision science that deploys software technology, predictive analytics takes both historical and real-time data to analyze past patterns, risks, trends:
  - It delivers high-confidence, actionable intelligence to anticipate outcomes, to plan and to act upon
- Subsequently, life insurance firms can efficiently manage their current businesses, exploit rapidly-evolving and emerging opportunities, and proactively mitigate risk (the latter ranging from loss of HNW AUM to countering AML, or from knowing the best price to acquire or sell books of business)
- Predictive analytics is a hand-in-glove partner with legacy actuarial science, driving operational efficiency, risk exploitation, and mitigation while realizing hard, fast ROI

Key Drivers

- The increasing engagement by life insurers in predictive analytics in recent years is due to the growth in the number and quality of consistent content from open sources for data collection and the ability to assimilate data into hard and fast actionable intelligence
- Life insurers are adopting predictive analytics and modeling techniques to zero in on:
  - Highly coveted market segmentation
  - Quickly moving from strategy to tactical realization of personalized offerings
  - Claims counter-fraud solutions and prevention, and
  - Strengthening underwriting and risk management
- Shortly, life insurers will have a significant opportunity of using analytical models and high value targeted methodology before buying books of businesses/other insurers:
  - This allows life insurers to know the true future value based on deep understanding of each underlying policyholder versus the age-old pricing based on discounted cash flows
  - Likewise, those insurers seeking to shed a book of business, or change reinsurance structures will gain materially as they calculate the future value of each policyholder more precisely
  - Thus, the predictive analytics allows life insurers to buy right, reinsure smarter, and sell right

Exhibit 6: Predictive Analytics for Understanding Customer Needs

| Tap into third-party data sources to derive insight on a customer's life changes | → | Verify and compare whether the customer (insured) has appropriate coverage | → | Use models to determine the refined risk and develop personalized offerings |

Source: Capgemini Financial Services Analysis, 2017

Trend Overview

- Predictive and behavioral analytics uses deep-rooted science that incorporates not just statistical algorithms but machine learning to rapidly discern and adjust understanding and action as policyholders' lives, individually and collectively, evolve:
  – The result is high impact, fast and hard ROI, by arming underwriters, actuaries, claims, and financial executives with knowledge they can use, to know tomorrow, today
- Predictive analytics provides life insurance underwriters the ability to charge premiums on a more realistic view of risk, as opposed to estimates based on factors such as age and other historical data
- Advances in decision science and open source exploitation enable life insurers to rapidly bring old policyholder data to the present and maintain a constant understanding of emerging and evolving needs, and risks:
  – This step of making policyholder data highly relevant to the present, and keeping it updated on a regular basis is critically important to the life insurer who looks to reach and exploit the massive millennial market
- The use of predictive analytics will enable insurers to create precise and actionable customer micro-segments and models based on demographics, life stage, needs, and behavior
- Thus, with keener customer insight and science-based analysis, life insurers can offer personalized products to meet customer needs:
  – E.g., Aviva is leveraging predictive analytics to target customers from within its 31-million base and offer the most appropriate product[12]

Implications

- The insights derived from analytics can be used by underwriters for decision accuracy, better risk classification, and personalization of products to meet customer needs
- Predictive analytics will help extensively in M&A to not only speed up the process but also to optimize the information to gain clarity on the true future value of each policyholder in the current book as well as of new policyholders. The result? Smarter, leaner, proactive, and profitable life insurers

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12 "Aviva appoints Adam Kornick as Global Analytics Director", Aviva Website accessed October 2017 at https://www.aviva.com/media/news/item/aviva-appoints-adam-kornick-as-global-analytics-director-17336/

Trend 07: Advanced Analytics Encourage Better Fraud Detection, Prevention

Life insurance industry is likely to increasingly leverage advanced analytics tools supported by AI systems for better fraud detection and prevention to cut down on the losses
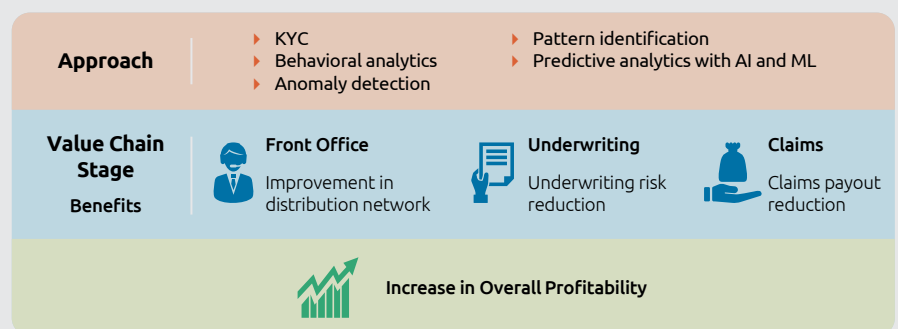
Background

- Losses in any organization due to frauds are at least 3%, and more likely to be around 6% according to a report by Crowe Clark Whitehill[13]
- The life insurance industry has a greater opportunity to use available data and analytical tools that can enable them to increase transparency and trust with their customers

Key Drivers

- Experts estimate that frauds cost $10-20 billion to the life insurance industry per year[14]
- There is a greater availability of customer behavioral data from multiple channels, including mobile, connected devices and social media that can be analyzed for fraudulent behavior or patterns
- Various anti-money laundering and counter-terrorism financing regulations across the globe are driving insurers to adopt stricter know your customer (KYC) practices

Exhibit 7: Life Insurance Fraud Detection and Prevention

Approach	▸ KYC ▸ Behavioral analytics ▸ Anomaly detection	▸ Pattern identification ▸ Predictive analytics with AI and ML
Value Chain Stage **Benefits**	**Front Office** Improvement in distribution network	**Underwriting** Underwriting risk reduction	**Claims** Claims payout reduction

Increase in Overall Profitability

Source: Capgemini Financial Services Analysis, 2017

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13 "The Financial Cost of Fraud 2017", Jim Gee, Crowe Clark Whitehill, February 15, 2017, accessed October 2017 at https://www.croweclarkwhitehill.co.uk/financial-cost-fraud-2017/

14 "Investigating Life Insurance Fraud and Abuse", Julianne Callaway, Derek Kueker, Mark S. Dion, Leigh Allen, Ryan Barker, Nick Kocisak, Reinsurance Group of America, August 21, 2017, accessed October 2017 at http://www.rgare.com/knowledge-center/media/research/investigating-life-insurance-fraud-and-abuse

Trend Overview

- Insurers are looking to leverage advanced analytical capabilities with artificial intelligence (AI) and machine learning (ML) for better fraud detection and early identification of fraudulent cases:
  - AI can help the insurers derive insights from unstructured data for improved insights from behavioral data and better pattern identification
  - ML systems can be used for improving pattern and anomaly detection capabilities
  - Predictive models can be used by the insurers for real-time flagging of potential frauds during policy underwriting or claims processing
  - E.g., Manulife uses advanced analytics anomaly detection and ML for fraud detection in claims[15]
  - Another example is that of Reliance Nippon Life Insurance, which uses propensity-based analytics for fraud management[16]
- With the increasing adoption of digital channels, there are increased opportunities for misrepresentation so knowing the customer (KYC) is critical to keep the frauds in check
- Insurers can also use fraud detection models to analyze its distribution network's performance and check it for mis-sellings, misrepresentations, and other frauds like commission rebating[17]

Implications

- Quick identification of agent frauds using fraud analytics like pattern identification can improve the distribution network of an insurer greatly
- The use of advanced fraud analytics systems enables an insurer to detect frauds and identify new fraud patterns, resulting in lower fraud losses and better underwriting results due to reduced claims leakage
- A claims processing system, with advanced fraud detection capabilities, reduces processing time and the number of false positives and can lead to better customer satisfaction

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15 Manulife Website, accessed October 2017 at http://www.manulife.com/AdvancedAnalytics?ocmsLang=en_US

16 "Insurers use analytics to detect fraud, cross-sell products", M Saraswathy, July 16, 2016, Business Standard, accessed October 2017 at http://www.business-standard.com/article/finance/insurers-use-analytics-to-detect-fraud-cross-sell-products-116071600761_1.html

17 "Life Insurance - Combating Fraud and Minimizing Losses", Cecil Ramotar, Gen Re, November, 2013, accessed October 2017 at http://www.genre.com/knowledge/publications/bulletinlh1310-en.html

Trend 08: InsurTech Capabilities Enabling Market Expansion

InsurTech capabilities are enabling life insurers to explore new revenue streams and reach new markets by designing more granular products

Background

- When it comes to innovation, life insurance has typically lagged behind P&C and even health insurance due to the complex, sensitive, as well as long-term nature of its products
- Emerging startups in this sector, however, are expanding the boundaries of how life insurance is designed and delivered by leveraging InsurTech capabilities based on the latest technologies

Key Drivers

- Life insurers are facing a need to explore newer segments to enhance their revenues, and it is also becoming important for life insurers to design innovative products to cater to millennial and tech-savvy customer segments
- Insurers' need to innovate is further driven by customers demanding digital interactions that provide convenience, agility, and personalization, as noted in the *World Insurance Report 2017*[18]
- Digital and analytics tools are enabling design of more dynamic and granular products in life insurance as they allow for greater flexibility and agility in execution

Trend Overview

- InsurTech capabilities, such as digital applications and advanced analytics, are enabling life insurers to develop and offer more granular policies
- This is making life insurance more affordable to lower-income customer segments and more appealing to millennials who are used to on-demand services

Exhibit 8: Innovative Offerings in Life Insurance

Source: Capgemini Financial Services Analysis, 2017

- Some of the innovative offerings in life insurance, based on InsurTech capabilities, include:
  - Micro-Duration Coverage:
    » With the help of mobile apps, life insurance coverage can be delivered on-demand and for only a short, specified duration
    » This can make life insurance accessible to markets that may have been discouraged by lump-sum premium amounts and thus found the traditional long-term policies less affordable
    » Such products will also be more appealing to segments such as Gen Y who may prefer more flexible coverage options and want to purchase life insurance coverage only when needed
    » E.g., digital insurer Sure's mobile app allows customers to access life insurance coverage for the duration of their air travel and they can purchase coverage at any time up to the time of the flight's departure[19]
  - Mobile-Based Micro-Insurance:
    » Mobile-based micro-insurance allows customers to purchase small packages of life insurance coverage with low premium amounts and for shorter durations through convenient mobile payment options
    » Such products are especially useful for emerging markets to make life insurance accessible to the lower income population
    » E.g., BIMA's mobile insurance solution allows customers to purchase accident or life coverage for small amounts such as 60¢ a month with a rolling monthly cover
    » BIMA's offerings are available across Africa, Asia, and Latin America and the firm collaborates with the mobile operators in these countries to enable mobile premium payments[20]
  - Targeted Products for Specific Segments:
    » Life insurance coverage can also be made more flexible and granular by unbundling the coverage and designing more customized products for specific segments
    » E.g., InsurTech firm Fabric has designed life insurance products that cater to the specific needs of parents. As this group typically faces the biggest risk from accidental death, it provides the Fabric Instant product to address this particular peril, allowing customers to purchase only the specific type of coverage they need
    » Fabric's app also allows customers to add more illnesses to their policy by upgrading to Fabric Premium, which provides a 20-year term life coverage priced as per the customer's health and lifestyle
    » Fabric's mobile app makes the purchase process streamlined so that the customers can avail of life insurance in a matter of minutes[21]
    » Such an unbundled and customized product might be more readily purchased by the target segment than a broad coverage with higher premiums

Implications

- Granular life insurance products enable the life insurers to drive organic revenue growth by expanding their footprint in newer and emerging markets
- They can achieve greater customer satisfaction through more agile offerings
- However, it will be important for life insurers to develop advanced actuarial and underwriting processes as well as deploy the right technology infrastructure that can adapt to micro-duration products

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21 "Fabric raises $2.5 million to simplify life insurance", Berenice Magistretti, Venture Beat, March 21, 2017, accessed October 2017 at https://venturebeat.com/2017/03/21/fabric-raises-2-5-million-to-simplify-life-insurance/

Trend 09: Life Insurers Explore Multiple InsurTech Approaches

Life insurers are exploring approaches such as collaboration/ partnership, acquisition, and in-house development to gain InsurTech capabilities

Background

- Leveraging emerging technologies, InsurTech firms are coming up with innovative offerings across the life insurance value chain
- Traditional life insurers are focusing on inculcating the InsurTech capabilities by either by partnering/ collaborating or acquiring InsurTech firms or by developing in-house capabilities

Key Drivers

- With innovative offerings, InsurTech firms are gaining prominence among insurance customers, especially with tech-savvy and Gen-Y customers. Traditional life insurers seek to come-up with innovative products to satisfy evolving customer expectations
- Moreover, traditional insurers are focusing on enhancing their InsurTech capabilities for cost optimization and identifying emerging risks due to changing lifestyle of customers
- On the other hand, InsurTech firms are focusing to collaborate with traditional life insurance firms for customer base and funding

Exhibit 9: Approaches of Life Insurers to Gain InsurTech Capabilities
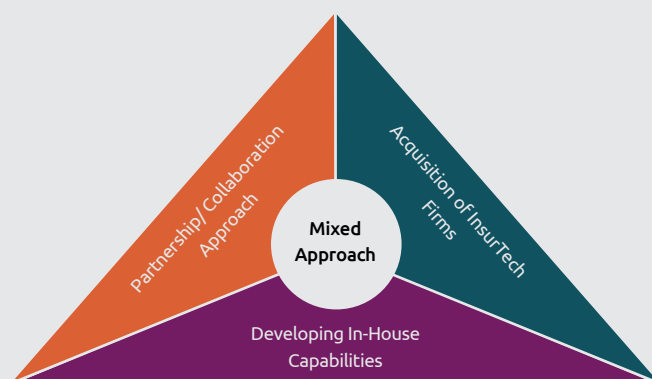
Source: Capgemini Financial Services Analysis, 2017

Trend Overview

- According to the Capgemini-Efma World Insurance Report (WIR) 2017, both InsurTech firms and insurance firms have complementary advantages that make their collaboration a natural fit, resulting in a win-win situation:
  - InsurTech firms are perceived by customers to offer better value for money, have the ability to integrate social with financial worlds, and provide timely and efficient service
  - Traditional insurance firms are perceived by customers to have trust advantage, better security and fraud protection mechanisms and provide better access to products and services[22]
- Traditional insurance firms are adopting various approaches for enhancing their InsurTech capabilities:
  - Partnership/ collaboration: Traditional insurance firms take part in accelerator/ incubator programs, invest in InsurTech firms, collaborate with InsurTech firms to offer products/ services, or hire an InsurTech firm to provide technology services:
    » For example, Japanese life insurer Dai-chi Life has partnered with InsurTech firm Modiface to offer health promotion services[23]
  - Acquisition: Traditional insurance firms acquire life InsurTech firms for inculcating InsurTech capabilities
  - In-House Development: Traditional insurance firms also set-up in-house R&D centers to foster innovation:
    » For example, MassMutual has its own in-house start-up Haven Life, which is a direct-to-customer online life insurance platform[24]
  - Several traditional life insurers usually follow a mix of the various approaches for acquiring InsurTech capabilities to maintain a balance between cost-of-innovation and control over innovation

Implications

- By collaborating with each other, traditional life insurers and InsurTech firms can more effectively address their challenges
- Collaborating with InsurTechs, traditional life insurers can provide innovative offerings and value-added services, and they can also improve the time-to-market of such offerings
- InsurTech firms can gain customer trust by associating with an established incumbent brand, and they can also acquire insurance business know-how by working with traditional insurers
- By participating in accelerator/ incubator programs, traditional life insurers can cherry-pick the InsurTech firms that best suit their technical and cultural expectations
- Developing in-house capability can generate patented innovations, which could be a competitive advantage for a traditional life insurance firm

22 "World Insurance Report 2017", Capgemini, 2017 accessed October 2017 at https://www.worldinsurancereport.com/

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Trend 10: Leveraging the Cloud to Deploy New Offerings

Increasingly, life insurers are leveraging the cloud for better agility and scalability in deploying new offerings

Background

- Digitization has increased the scope of cloud for life insurers, making cloud-native applications a core component of the cloud strategy
- Cloud, with its flexibility, is essential for handling huge volumes of behavioral data from sources, such as wearables, and for providing real-time insights to insurers and customers

Key Drivers

- The cloud can be used to overcome the inflexibility of on-premises IT infrastructure, and it can help manage the instances of underuse and under capacity and thus can help cut down the IT-related infrastructure costs[25]
- Cloud can cater to the businesses' need to streamline processes and increase the agility and efficiency
- Life insurers need to improve the ability to collaborate securely with external partners in their distribution network such as agent, agency, or broker

Exhibit 10: Features of Cloud-native Applications
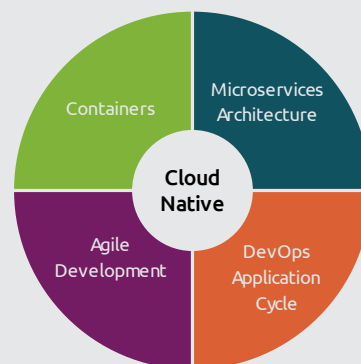
Source: Capgemini Financial Services Analysis, 2017

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25 "The Biggest Risk is the Status Quo", Microsoft, November 25, 2016, accessed October 2017 at
    https://enterprise.microsoft.com/en-ca/articles/industries/insurance/the-biggest-risk-is-the-status-quo/

Trend Overview

- Insurers are adopting a cloud-native approach for the development of new applications:
  - Cloud-native is a core part of the technological strategy for around half of the insurers
  - Around one-sixth of the new apps are now cloud-native, showing that the key cloud features of agility and scalability are regarded highly by insurers[26]
  - Features of cloud-native include:
    » Microservices architecture that allows applications to be deployed as a collection of small and independent modular codes that communicate using APIs and can be scaled independently
    » Containers, allowing the codes to be moved around easily and allows containment of failures
    » Agile development of application and continuous delivery, allowing quick feedbacks, leading to faster application development
    » DevOps, the continuous delivery model, a key enabler of cloud-native applications by removal of organizational barriers and improving collaboration
  - E.g., MetLife developed a new user interface (UI) that streamlines the experience of its customers and agents by allowing them to get a complete view of their relationship with the insurer on any platform (mobile, tablet, and PC):
    » The UI uses an application that is built on Docker's containers-as-a-service platform (CaaS)
    » The containerized micro-services application taps into more than 400 insurers' data systems, for accessing the records
    » The records repository had been running in silos, using different languages and systems, with codes dating back to 1982
    » DevOps enabled fast production of the application, and it took only five months from the concept phase to production[27]
- In the life insurance sector, SaaS platforms also use the cloud for better agency integration and policy administration systems:
  - E.g., New York Life collaborated with Vlocity and Salesforce to deploy cloud-based applications for their agents, aimed at enriching customer relationships and improving agent effectiveness[28]

Implications

- The cloud can help insurers achieve better operational efficiencies due to reduced downtime and right-sized IT infrastructure
- Cloud-based agility can aid faster development of new offerings by cutting down the time to market
- DevOps delivery model agility supports a continuous innovation environment and increases business velocity

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