Digital Disruption in Insurance

Winning by unlocking the value of Digitization

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Introduction

Traditionally, insurance has been a very conservative industry, including in its implementation of information technology across its strategies and solutions. This sense of innovation has already begun to shift as the insurance industry is incorporated ever further within a number of technological advances which, if properly integrated, could totally alter the current insurance market and its customer interactions. In this context, digitalization is expected to significantly alter the entire insurance environment, affect all points along the value chain of insurance and thus reshape the competitive landscape. By increasing data collection through new digital technologies, companies are better able to facilitate a more granular underwriting of risk insurance. Smart analysis techniques, predictive modelling and connected telematics devices permit insurers to create products and set premiums based on risk profiles rather than on general standards.

Due to increased regulation and competition from new market entrants and existing firms, the decline in profit margins forces existing firms to pursue cost savings and improved efficiencies while seeking better competitive performance through strategies of greater consumer proximity and customer loyalty. New technologies have had a profound impact on the delivery process, where the use of digital platforms and the emergence of new media have significantly altered the service's sales process, mode of use, and, ultimately, customer relationships. The contemporary digitized landscape will also raise further insurers' concerns around this trend.

The growth of the digital economy is also radically changing the expectations and behavior of customers. For instance, increased consumer use of portals and aggregators would improve product transparency and reduce switching insurer's costs. Consumers have a wide range of information at their disposal to help assess risk exposures and become more self-directed in how they choose to meet their insurance needs. Therefore, it is important for companies to change the way they run their businesses in order to keep engaging their customers, who are demanding more individualized offerings and fully integrated sales and service channels.

The rate of implementation of new and innovative solutions in changing the way insurance companies carry out business operations will continue to grow over forthcoming years. Such developments are not just centered around digitizing the legacy company, but also communicating to the enterprise as a whole that there is a better way of working. Such solutions will contribute towards a sense of positive energy yet also introduce a degree of risk, while providing new opportunities and satisfying performances. Businesses are challenging their employees to help facilitate new customer-centered structures, model ideas and goods, and release them under a new management system and set of controls revolving around HR, accounting, operational structures, etc.

Such a system will involve the adoption of a completely new strategy and result in a technological greenfield being built that could allow it to move beyond the existing frameworks and environment to achieve their goals. Digitalization provides a huge opportunity for those insurers who are ready to rise to this initiative. The most profitable businesses are those that use the digitalization drive to rethink all their activities, from underwriting to customer service to claims management. It can have a huge impact on both revenues and costs. By becoming more effective and efficient, pioneers of digital technology will gain an important edge over their rivals.

3 Challenges Facing Insurers Today

Insurance companies are considered to be institutions that are able to eliminate or mitigate the adverse effects of unexpected misfortunes. Nevertheless, insurance firms are also able to act as underwriters for risk results. Industrialized and advanced economies rely on insurers, which is why many companies and industries in developed countries do not liquidate or 'go under' unless no other solutions are presented. Nowadays, any company is expected to undergo changes that can be either negative or positive. There are various issues to be addressed in any sector. Insurance executives believe that technology can help them improve their profitability and customer loyalty while reducing costs and boosting growth. In order to achieve an effective digital task, insurers are faced with several challenges before successfully executing it.

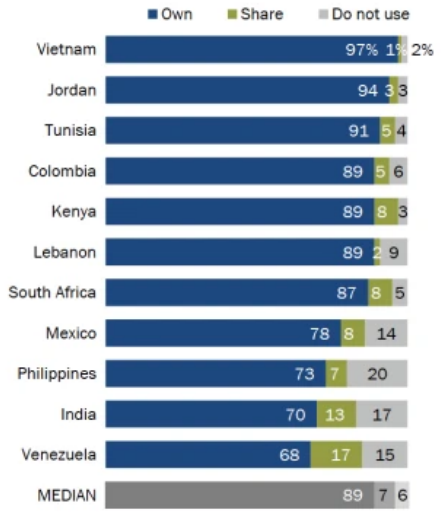
1) Technological Challenges

A number of changes and adoptions to innovation with the industry have had a significant impact on the insurance sector. These improvements can be segmented as follows: [1]

✓ **Consumer / Channels**

A number of new technologies are developing and offering new opportunities for communication between customers. Consumers are seeking an online experience and these expectations will only increase with internet penetration and wider global usage. However, when it comes to changing customer experiences, the web is only a part of the equation. Consumers are constantly using mobile devices to communicate with businesses. In the banking sector, for instance, player are now offering a mobile app to satisfy many customer needs. Consumers are now also demanding similar initiatives from insurers in some countries the market has become 'mobile first', as users bypass fixed broadband and move straight to their mobile devices. Insurers should find ways to use such tools and take advantage of new devices to communicate with their customers. To remain competitive in the digital transformation, insurers will have to resolve a systemic challenge: frequency of interactions. The use of social media has increased dramatically; consumers are constantly using networks. Their social media value is likely to grow and change, making it important for insurers to develop a clear strategy on how to handle them. Nonetheless, a few insurers have shown that they have a social media management policy that engages customers through a positive commitment.

Figure 1: Majorities of adults own a mobile phone. Pew Research Center (2019). Mobile connectivity in Emerging Economies. Retrieved from: https://www.pewresearch.org/internet/2019/03/07/use-of-smartphones-and-social-media-is-common-across-most-emerging-economies/

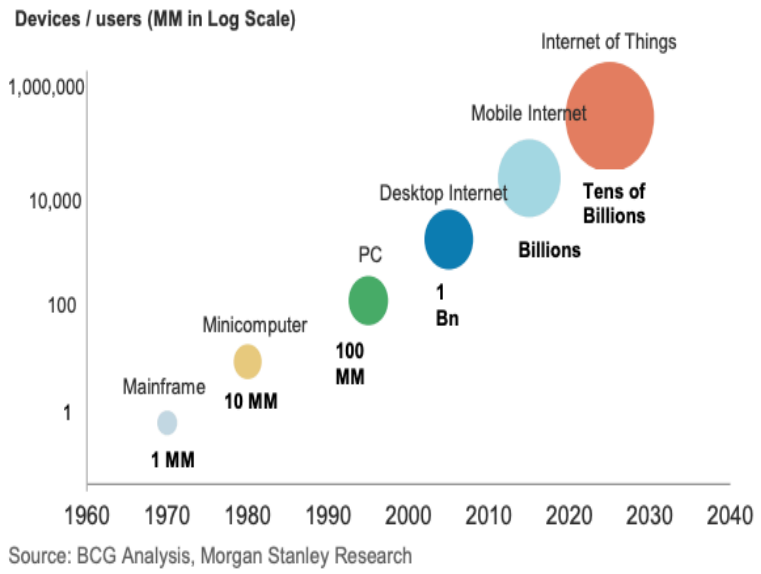


According to the figure ownership rates are the strongest in Vietnam, where almost all adults (97%) own a mobile device, although about nine in ten or more own a mobile device in Israel, Tunisia, Honduras, Kenya, Lebanon and South Africa. Ownership in Colombia, China, and the Philippines is lowest, but about seven in ten adults own a mobile device even in these nations.

[1] Morgan Stanley (2014). Insurance and technology. Retrieved from: https://www.the-digital-insurer.com/wp-content/uploads/2014/10/372-evolution-revolution-how-insurers-stay-relevant-digital-world.pdf
[2] Pew Research Center (2019). Mobile connectivity in Emerging Economies. Retrieved from: https://www.pewresearch.org/internet/2019/03/07/use-of-smartphones-and-social-media-is-common-across-most-emerging-economies/

3 Challenges Facing Insurers Today

Figure 2: The number of connected devices Is set to soar through the Internet of Things. Morgan Stanley (2014). Insurance and technology. Retrieved from: https://www.the-digital-insurer.com/wp-content/uploads/2014/10/372-evolution-revolution-how-insurers-stay-relevant-digital-world.pdf



✓ **Core Systems**

Specifications of new digital applications are testing legacy systems and new technologies offer new possibilities for system infrastructure. Changes in core systems are likely to be in the path of on-premise modernization, but Software as a Service (SaaS) and cloud infrastructure could also play a significant role. New offers and new technologies on the market can enable insurers to change the way they engage suppliers and tackle their core IT challenges.

Cloud infrastructure could provide a new way for insurers to reduce their IT running costs and free up funds for investment and innovation. In an ideal world, insurers would move to a completely cloud-based core system. Moreover, it should be mentioned that cloud software can continue to level the playing field between the biggest insurers and smaller or mid-sized players. The past cost of innovation had been mainly advantageous for larger corporations. The Cloud will shift this concept as it continues to democratize technology. [3]

[3] Morgan Stanley (2014). Insurance and technology. Retrieved from: https://www.the-digital-insurer.com/wp-content/uploads/2014/10/372-evolution-revolution-how-insurers-stay-relevant-digital-world.pdf

3 Challenges Facing Insurers today

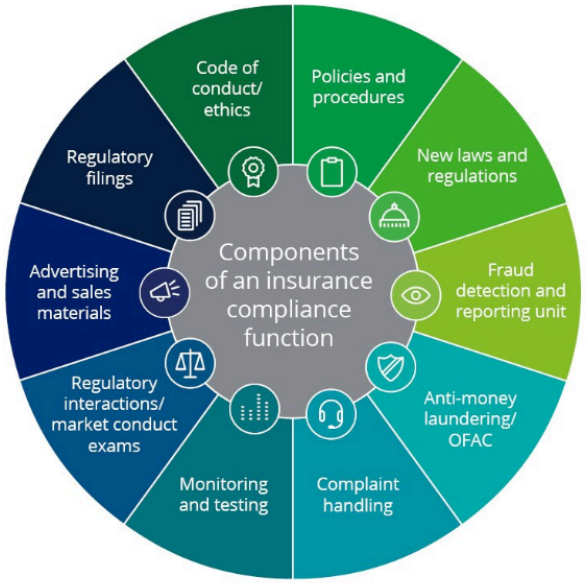
2) Regulatory Challenges

There is no doubt that the dynamics of the current regulatory climate continue to present significant challenges across the broad spectrum of financial services companies, as regulators continue to expect management to show rigorous levels for supervision, enforcement and risk management. These challenges occur at various overlapping levels of regulatory authorities, including state and local, federal AND international and, in some cases, regulatory bodies that have only recently been created and extended. Some of the most important regulatory challenges that insurers are currently facing are analyzed below:

✓ **Consumer Data Protection**

The implementation of General Data Protection Regulation (GDPR) will have a significant impact on the insurance industry due to the large amount of personal data and confidential personal data collected by companies. Insurers will need to foster greater awareness and transparency of the information they collect and exchange from their consumers, and will also need to be able to justify why they have to acquire or to keep the data in question. Insurance companies should now have to deal with the possibility of sharing personal data with competitors in certain cases and set up protocols to comply with such demands. [4]

Figure 3: Components of an insurance compliance function. Deloitte, 2018. Insurance regulation and technology: Adding business value to compliance. Retrieved from: https://www2.deloitte.com/us/en/pages/financial-services/articles/insurance-regtech-adding-business-value-to-compliance.html



Source: Deloitte, 2018 [5]

Data protection regulation in Europe is being actively encouraged. It provides guidelines for improved consumer rights and data protection, and ensures greater confidentially responsibility by the insurer. In addition, EU regulation provides the right to erasure for customers, potentially threatening the willingness of insurers to depend unconditionally on data subjects through these rights. In Asia, trends vary between countries with more developed economies, shifting towards a stricter regulatory environment, while security levels are generally expected to remain weak in developing markets, especially in China and India. Current regulations on privacy in the US are handled at a national level or with ad-hoc federal legislation, and no specific regulations on data protection as they are currently in place. [6]

[4] KPMG (2018). The GDPR and key challenges faced by the insurance industry. Retrieved from: https://assets.kpmg/content/dam/kpmg/ie/pdf/2018/03/ie-gdpr-for-insurance-industry.pdf
[5] Deloitte (2018). Insurance regulation and technology: Adding business value to compliance. Retrieved from: https://www2.deloitte.com/us/en/pages/financial-services/articles/insurance-regtech-adding-business-value-to-compliance.html
[6] Morgan Stanley (2014). Insurance and technology. Retrieved from: https://www.the-digital-insurer.com/wp-content/uploads/2014/10/372-evolution-revolution-how-insurers-stay-relevant-digital-world.pdf

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[11] Digital News Asia (n.d.) Crisis looms as business leaders fear digital startups. Retrieved from: https://www.digitalnewsasia.com/business/digital-crisis-looms-business-leaders-fear-digital-start-ups

Section 1 - Five Key Areas of Disruption

Digital trends dissolve traditional boundaries and insurance companies' long-standing competitive advantages. Insurance industry pillars like underwriting, risk management, control of expenses and distribution of products are being disrupted. It is believes that there are five areas of disruption affecting the insurance industry and forcing related companies to redesign their business models:

Area # 1: Digitizing Operations

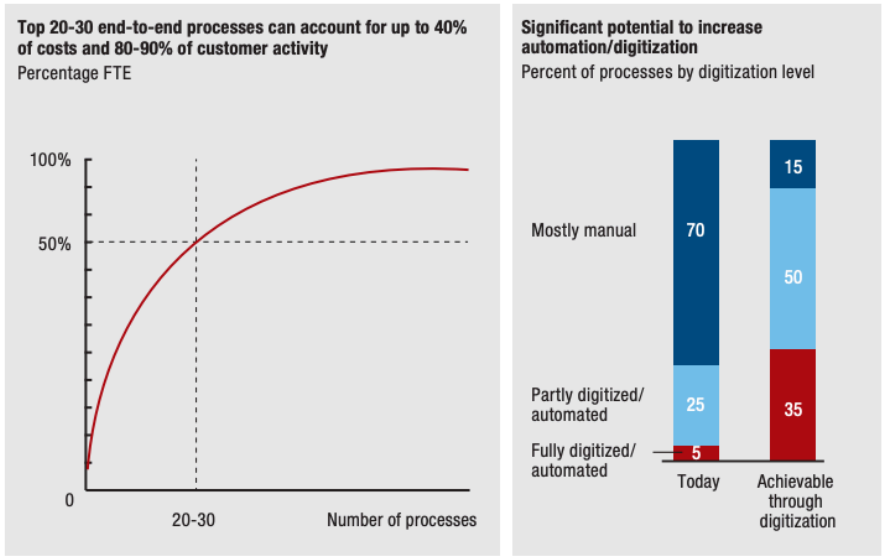
The use of automation to generate concrete market benefits has become a reality today, with almost all companies riding the wave of new cognitive technologies. The insurance industry is no exception and remains at the forefront of global disruption. Traditionally considered a highly regulated and conservative market, it is experiencing a radical shift today due to the increasing advantages of intelligent technology. Despite the fact that automation has driven process efficiencies for a long period of time, there are limitations and the impact is slow due to high implementation costs, system risk and other factors.

Robotic Process Automation (RPA) offers a relatively superior system through efficient implementation, ability to handle core technology like a BlackBox, and higher returns at lower cost and risk. While the initial years have seen more effect on higher volume transactions, usually in personal lines, RPA is now gaining ground across cognitive and AI combinations in more complex operations such as commercial lines. The primary driver is cost, but through improved quality and speed, it also has a significant impact on customer outcomes. [12]

Digitizing business processes can yield significant short-term gains in the form of lower costs, lower error rates and increased customer satisfaction across the spectrum of businesses. Nonetheless, many carriers have not fully taken up the opportunity so far.

[12] EXL (2018). Five Levels of Digital Disruption in Insurance. Retrieved from:https://info1.exlservice.com/hubfs/Five-Levels-of-Digital-Disruption-in-Insurance.pdf
[13] McKinsey (2015). The making of a digital insurer. Retrieved from: https://www.mckinsey.com/~/media/McKinsey/dotcom/client_service/Financial%20Services/Latest%20thinking/Insurance/Making_of_a_digital_insurer_2015.ashx

Figure 6: Insurers can capture significant value by digitizing their largest processes. McKinsey (2015). The making of a digital insurer. Retrieved from: https://www.mckinsey.com/~/media/McKinsey/dotcom/client_service/Financial%20Services/Latest%20thinking/Insurance/Making_of_a_digital_insurer_2015.ashx



Source: McKinsey analysis

Some expect their antiquated IT systems to be an insurmountable obstacle, but the reality is that insurers can upgrade many discrete processes without changing their underlying technology infrastructure. Carriers digitize processes to achieve productivity and improve customer satisfaction rates, often without major technology infrastructure upgrades, and in time frames ranging between weeks or months, as opposed to years. In particular, claims and services are promising areas for process digitization. In addition, there are numerous smaller-scale processes for many carriers that include wasteful material-reliant procedures and duplicative activities that can be digitized cost-effectively over short periods of time. [13]

Section 1 - Five Key Areas of Disruption

Area # 2: Digital Capitalize a Safer World

Over time, digital technologies such as connected homes, sensors and driverless cars reduce human error and provide better hazard responses, further enhancing security. While the insurance sector need will not disappear, its pricing and scale will continue to be affected. Nevertheless, the drive towards more innovative products and protection services will continue to emerge in this safer world.

Cyber security risks will fuel the need for corporate and individual risk coverage. The fundamentals of risk coverage will shift as the requirements for risk coverage grow. Future insurers will play more of a role in risk avoidance and have less input in risk mitigation.

For instance, Tesla has sold car insurance with its vehicles in Asia as part of its vision of eventually including insurance in the final price of its vehicles. The move is intended to account for the fact that on the road today, the Autopilot features makes Tesla cars much safer than traditional ones. [14]

Area # 3: Digital Disintermediation

This form of disturbance has transformed the manner in which business is done. Uber is an example of this, as the company hasn't only made the existing taxi service more efficient in itself, they've also changed the concept of non-self-owned vehicles driving. A simplified way to describe an insurance carrier is to be an intermediary between risk-cover seekers and those with deployment assets. Brokers also act as a customer engagement intermediary.

The intermediary is an aggregator, an algorithm and a model of customer engagement. All three can be done by digital technology. Although at an early stage of their development, there are insurtech companies that offer these three functionalities for capital deployment across digital consumer journeys, comparison sites, chatbots, automated underwriting, and claim adjudication, cost algorithms, and peer-to-peer networks.

Although currently serving a narrow and lowed risk segment with an occasional need for exception processing, they have clearly shown that aggregation algorithms and customer interaction can be a digital end-to-end service. Leading companies not only use data and analytics to improve their core operations, but also to launch completely new business models. [15]

[14] EXL (2018). Five Levels of Digital Disruption in Insurance. Retrieved from:https://info1.exlservice.com/hubfs/Five-Levels-of-Digital-Disruption-in-Insurance.pdf
[15] Medium (2019). The 5 levels of disruption that will force insurance to redesign their business models. Retrieved from:https://medium.com/@inmediatesg/the-5-levels-of-disruption-that-will-force-insurance-to-redesign-their-business-models-c5a362e65451

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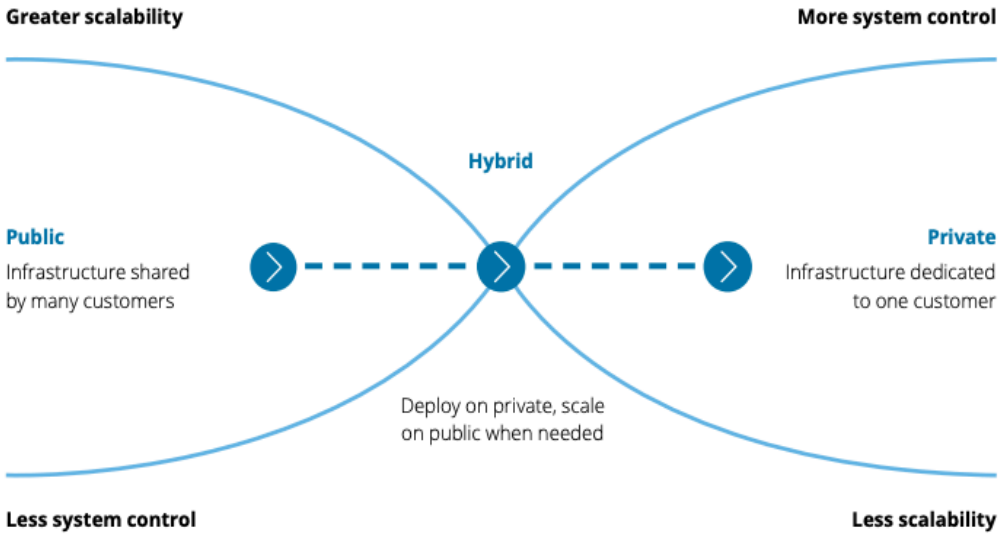
[20] Wolters Kluwer (n.d.) The Right way to use AI in an Insurance Claims Organization. Retrieved from: https://www.wkelmsolutions.com/blog/vince-venturella/right-way-use-ai-insurance-claims-organization

Figure 9: Cloud Deployment Models. Deloitte (2019). Cloud computing. More than just a CIO conversation. Retrieved from: https://www2.deloitte.com/content/dam/Deloitte/lu/Documents/technology/lu-cloud-banking-2030.pdf]



Cloud computing promises to further change the insurance business. Insurers should look at the four main categories of their business processes and technologies, namely the front office, back office, regulation and investment, and determine which operations could be migrated over to cloud computing. The insurance industry's promise of cloud computing is centered on two key priorities: cost reduction and increased agility. [21]

1) Cloud Computing

Cloud computing is a distribution system that can be applied to make business changes simpler and quicker. The cloud provides a huge opportunity for the insurance industry to develop. There is an increasing demand among insurers for cloud computing, and firms across the globe are looking for alternative deployment options to increase efficiency, boost flexibility by increasing capital spending and allow for geographical expansion. Cloud computing provides users with applications, data and IT resources as services provided for self-service on a network.

Cloud-computing enables enterprises to access IT-based services through the internet, including software, applications, systems and business processes. Cloud technology allows IT to respond better to the business's changing needs, create new solutions and open up new markets, thus helping them to achieve high performance. While the word 'cloud computing' has been coined relatively recently, other aspects of the framework have been around for many decades, such as time sharing and virtual machines.

A key catalyst is the success of major Internet companies such as Google, Amazon Web Services and Microsoft. Cloud computing is the most productive way to connect and collaborate on the go for a company, its customers and the insurance advisor or insurance manager. The brokers are typically not on the payroll of the client, as a single broker may work for more than one company in particular. [21]

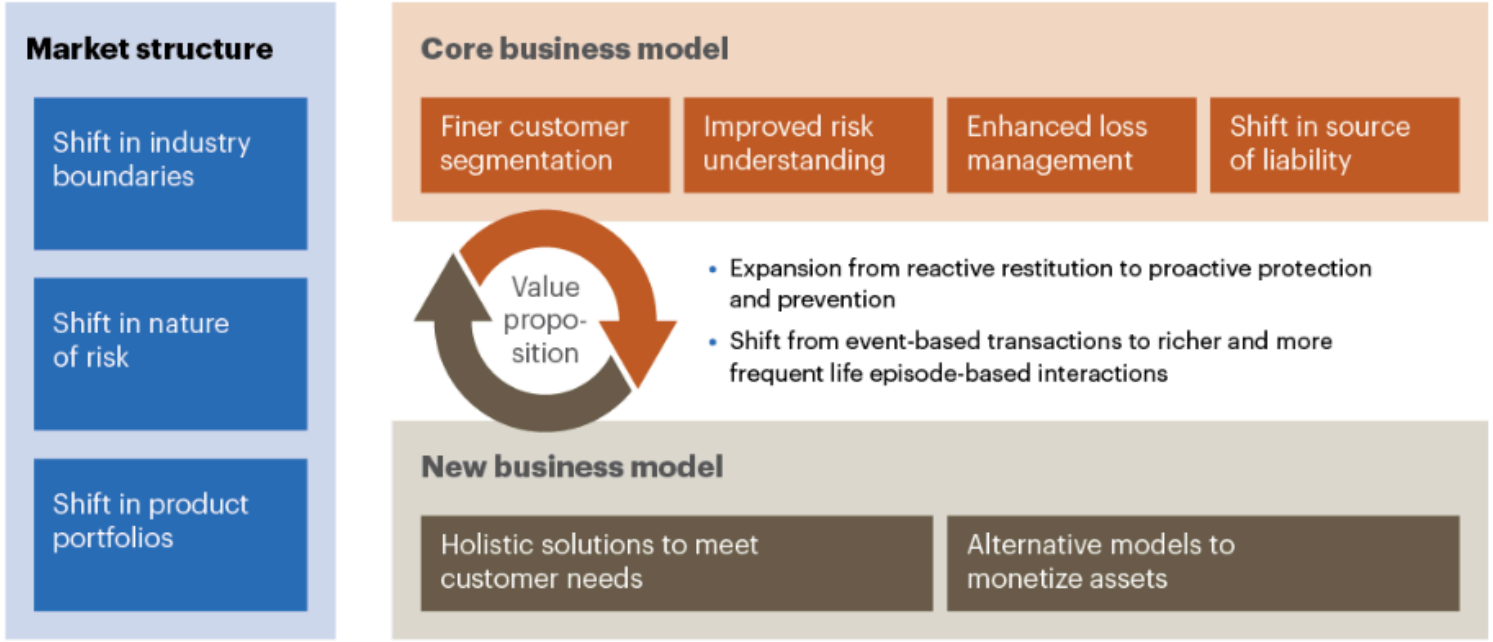
[21] IBM (2013). Cloud computing for insurance. Retrieved from: https://www.ibm.com/downloads/cas/QEB7DPVN
[22] Deloitte (2019). Cloud computing. More than just a CIO conversation. Retrieved from: https://www2.deloitte.com/content/dam/Deloitte/lu/Documents/technology/lu-cloud-banking-2030.pdf

Section 2 - Top Nine Technologies Disrupting the Insurance Industry

2) Internet of Things (IoT)

In the insurance sector, IoT has achieved rapid adoption. Many data streams and sources (wearables, vehicle-embedded sensors, location-based sensors, GIS) coupled with advanced analytics can help insurers improve risk assessment, real-time data-based pricing policies and proactively encourage customers to purchase loss prevention policies.

Figure 10: Implications for Insurance Industry



Source: A.T. Kearney analysis

- With the huge amounts of data (or touchpoints) available thanks to today's amazingly connected world, more usage-based insurance models for connected vehicles and precise actuarial models are expected. For instance, data (speed, time, braking patterns, distance) in the automotive insurance sector gives buyers more say in their premiums; for example, risky driving patterns can be used as warning signs.

- Companies like Aviva and State Farm are asking people to invest in home detectors, empowering them to help avoid threats to themselves and properties. For instance, as part of its home insurance policy, Neos Ventures, the UK's first connected home insurance specialist, provides preventive smart technology.

- In addition to real-time data and advanced digital technologies, insurers benefit from better customer relationships and risk management, quicker claim processing and bundled product sales. [23]

The Internet of Things (IoT) will fundamentally change the world over the years to come, and networked devices will be a significant part of that change. People owned 12.5 billion networked devices in 2010, and this number is estimated to have risen to over 50 billion by 2025. Installing them quickly and easily, and even being able to wear such devices, has been possible for a long time. These apps may transmit huge amounts of data to their suppliers or third parties - whether for real-time analysis or to cause reactions or generate new products automatically - and are already altering traditional business and operating models across multiple sectors. [24]

[23] Hacker earth (2018). 5 Technologies that made major impact on insurance sector. Retrieved from: https://www.hackerearth.com/blog/talent-assessment/5-technologies-insurance-industry/

[24] Accenture (2018). The new IoT for insurance. Retrieved from: https://insuranceblog.accenture.com/the-new-iot-for-insurance

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Section 3 - Benefits of Digital Disruption and Use Cases of Disruptive Technologies

[37] Accenture (n.d.) Digital Disruption Threat or opportunity? Retrieved from: https://insuranceblog.accenture.com/digital-disruption-threat-or-opportunity

Section 3 - Four Benefits of Digital Disruption for Insurance Industry

There are many ways to employ digital transformation for insurance companies. Some develop in-house capabilities by upgrading or replacing their core business applications and platforms. This can be very costly and time-consuming, but is ultimately one of the few available methods at the company's disposal for modernizing technological systems without relying permanently on third parties.

Digital transformation is important for many industries, but it is a business priority for the insurance industry. In other words, the insurance sector is taking advantage of the digital transformation in a number of ways to mitigate the complex challenges that the consumer, regulatory and digital landscapes face. Sector leaders are looking to create digital enterprise portals that can be utilized to satisfy future needs. Some of the important benefits that can be derived from the digital transformation are further outlined below:

1) Advanced analytics (AA) and online sales

Insurance companies have the ability to use cutting-edge technologies to target clients through the use of internet sales and use advanced analytics to obtain insight into customer needs and preferences. Advanced analytics also offers insurance companies and clients a way to tackle fraudulent claims by using big data analytics to build a superior system for detecting inconsistencies and misinformation in given data.

The insurance industry is finding innovative ways to leverage mass data for better risk predictions, pricing strategies, and enhanced customer insights. With the development of IoT sensors, the prevalence of social media, mobile technology, advanced vehicle computing systems and data points can be analyzed everywhere for enhanced service offerings.

The ability to add sensor technology across many of the main areas covered by the insurance sector; namely homes and buildings, vehicles and even life insurance, can be better assessed through wearable and mobile technology companies, allowing firms to utilize technology to monitor and analyze the risks they face and the prices to be associated with them.

Insurance companies are in a valuable position, being able to be situated at the cutting edge of technology by integrating artificial intelligence and machine learning into their insurance schemes, services and offers and recognize important indicators that individuals may otherwise miss or take much longer to find. Artificial Intelligence (AI), for example, can be applied to scan for fraudulent claims, provide a smart overview of existing risk levels, and streamline duties that would otherwise require human intervention. Almost all current technological trends in the insurance industry are related to digital transformation, underpinned by the ways in which data and analytics can effectively be collected and used. [38]

[38] Resolutets (n.d.). Digital transformation in insurance-current trends. Retrieved from: https://www.resolutets.com/digital-transformation-trends-in-insurance

2) Self-Service Dashboards

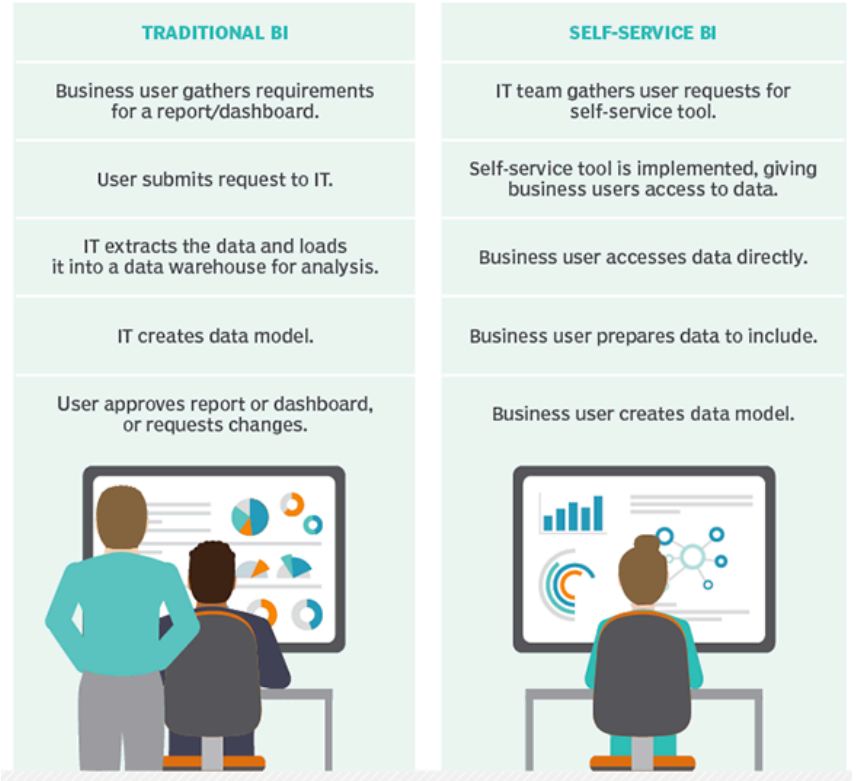
Self-service dashboards make it easier for customers to comprehend complicated insurance policies and calculate monthly premiums. These choices will have a major effect on the long-term financial future and plans of the customer. The complicated coverage costs of such policies can now be seen to help customers understand the rate of change and identify the best plans. Digitization also helps to make it easier to track the increasing speed of these policies. Insurance providers are constantly seeking to push the envelope into the digital age with the advent of new technologies, making applications more attractive and easier for customers to use.

3) Easy Comparisons

As part of their omnichannel support approach, many organizations are now also adding self-service portals to their list of offerings. These allows customers to submit claims and to search for answers themselves, while still retaining traditional methods of support in order to relieve some of the stress of the support team and appealing to a customer's preference to communicate with a live agent.

Some insurance companies are expanding their support and communication possibilities to encompass live website chats, social media messaging options and more with their clients, including digital applications for mobile phones and other devices. Omnichannel support can form a key part of an insurance company's digital transformation strategy. If a company wishes to prioritize communication with its customer, it can restructure its communication options to include all the primary ways that its customers could reach out and link them to a unique customer profile from the back end.

Figure 19: Traditional Business Intelligence vs Self-Service Business Intelligence. Search Business Analytics (2017). Self-Service Business Intelligence (BI). Retrieved from:https://searchbusinessanalytics.techtarget.com/definition/self-service-business-intelligence-BI



[39] Search Business Analytics (2017). Self-Service Business Intelligence (BI). Retrieved from: https://searchbusinessanalytics.techtarget.com/definition/self-service-business-intelligence-BI

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