DIGITAL INSURANCE

How Insurance Industry can excel with Technology Innovation?



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Introduction

Out of all the companies across industries, insurance companies have shown a low-risk appetite for stability instead of being more open to change. However, the insurance industry has been functioning at the intersection of traditional and digital insurance in the last decade. And, right now, the digital transformation insurance is boosting with each passing moment.

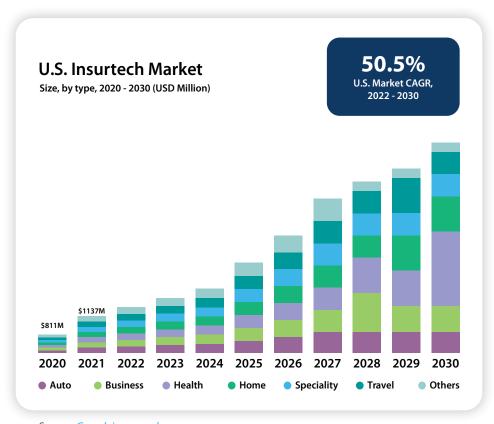
To cater to the next generation of insureds, insurers must adopt technology that resonates with the users and makes their experience a cakewalk.

84% of customers say, the **experience** a company provides is as necessary as its products or services—and yet, there is a massive divide between customer expectations and what most businesses are delivering.



Though the traditional insurance providers have shown a sluggish approach in adopting digital insurance, the customer demands are forcing the traditional players to adopt technologies that bring digital transformation in the insurance landscape.

This is the reason, the Insurtech Market in US has witnessed an upsurge



Source: Grandview search

A new force, digital technology, is causing profound changes in the insurance industry. The shifting carriers has prompted a rush of technology developments for insurers. The way customers interact with carriers is evolving as a result of new digital technology and enabling efficiency improvements, enter risk selection and claims handling for experiencing a superior customer experience (CX). As a result, carriers will be writing better risk manuals and improving their ratios. And now that the maturing is already happening, carriers are looking at the next stage of technology transformation to modify their core business procedures, products, and operational models in order to survive the competitive market-space. Carriers are also looking to reconfigure their insurance products and the whole value chain, right from innovating candles to ultimately making a bulb.

This eBook will give you a deeper understanding on how digital technologies are transforming the insurance industry and what are the core application areas for digital insurance

Digital transformation trends

Insurance product transformation trends

Embedded Insurance

Selling relevant and customized insurance to your clients at scale when and where they need it most is what embedded insurance is all about.

The technology requirements for carriers to compete in this market and the architecture needed to embed their products have been the topic of some recent perspectives on embedded insurance. By meaningfully entering the insurance market, disruptor businesses like Tesla have increased the sense of urgency.

Others hold a different viewpoint as per their selling strategies. Consider Coverager (Insurance publishing firm), which emphasizes product design as the secret to success embedded insurance, third-party operators such as Credit Karma who sells online insurance along with a car purchase through manufactures and several travelling companies like Goibibo who bundles insurance along with travel tickets or stays.

2 Usage based Insurance (UBI)/Telematics Insurance

Usage-based insurance, often known as UBI, is a type of insurance where the premium payment is directly correlated with the use



of the covered product or service. UBI is often referred to as Telematics insurance in the auto insurance sector. Telematics can be conceived of as a combination of informatics and telecommunication. It is useful in fetching driving-related data such as tracking, storing, and transferring vehicle details.

With telematics motor insurance, also known as UBI, carriers would have a better understanding of the risk profile of the car owner based on the mileage, average speed, frequency of use, and general driving capability. In order to charge an appropriate premium, this information is used. As a result, someone who drives safely will pay a lower premium than someone who drives recklessly and uses their car frequently, increasing the likelihood of an accident and, thus, a claim.

3 Data Monetization

Insurance companies are searching for new opportunities for revenue development as their traditional sources of income dwindle over time. This results in a shift in perspective where insurance is seen as a service rather than a good (or policy package). Services with increased value are increasingly being provided through insights derived from the appropriate data and algorithm combinations. The next stage in enhancing the value of data and analytics is to monetize data to gain commercial advantages.

In order for data monetization initiatives to be successful, carriers must specifically pinpoint growth areas, create the ideal framework, carry out tests, use the best analytical tools, put in place solutions, industrialize them, and adjust strategies. Pursuing



data monetization programme is not just a chance to explore for new revenue sources in a hyper-personalized client environment, but also a necessity for survival.

Digital technology trends

Web 3.0

Web 3.0, commonly referred to as the Decentralized Web or simply Web3, is the most recent generation of internet services and apps enabled by distributed ledger technology, the most popular of which being blockchain. However, the possible uses of this fascinating new technology are emerging thick and fast, right from DeFi: One of the main applications of Web3, known as Decentralized Finance, which does not rely on centralized financial intermediaries like exchanges or banks. DeFi substitutes smart contracts, which carry out transactions on the blockchain automatically, to NFTs, CBDCs, smart contracts, security tokenization, and the metaverse. The rate at which even e-wallets are getting adopted is exponential as well. It's guite thrilling and must not be disregarded.

Low Code/No Code

Carriers may develop really innovative products and first-rate client services by utilizing a low-code/no-code platform to create digital frontend experiences and an insurance core platform to provide strong backend capabilities.

Low-code/No-code application development platforms empower you to build apps 10X faster. The bare minimum amount of code,



setup, deployment, and training are required for LC/NC. Your time to market the solutions such as agent portals, underwriting apps, customer quoting tools, claims, etc. are done way faster than earlier.

LC/NC allows platforms to lay special focus on Insurance, helps creating the complete workflow for consumer lines for auto and home insurance, creating a complete workflow for simpler commercial lines and build portals for producer management such as agents and brokers.

With the use of LC/NC, digital-first processes like rating, quoting, issuance, endorsements, and renewals may be developed, resulting in a more productive, efficient business and betterserved, delighted consumers. Carriers can make persona driven APIs using LC/NC for boosting policy profitability, cut underwriting & claims-management costs, decrease IT legacy costs and build a better compliance.

Insurance companies will have a definite competitive edge if they have the infrastructure needed to expedite the way they develop, test, and release new products.

3 APIs/Microservices

Legacy applications and/or best-of-breed systems are being replaced by distributed systems like microservices, which include various modules and communicate with one another through APIs. Additionally, this open insurance system features a database for each of its modules. Only that tiny "chunk" of the module needs to be scaled up if more functionality needs to be added.



Building microservices gives the ability to release new products quickly and stay up with the rapidly evolving insurance industry. Microservices will make it possible to develop new business strategies, new goods, improved customer experiences, quick reactions to emerging business demands (in hours and days rather than months and years), and it will support carriers' efforts to stay competitive and relevant.

A classic example of Microservices is a rules engine. Business operations' logic is decided by a rules engine. Rules engines perform more tasks than only advancing a form. A regulation may also determine the rate that will be applied to a loan application. The rules engine is used to run rules based on income, credit score, and other qualifying criteria through calculations that result in the loan's rate. This rule consistently uses the most recent financial data to arrive at this judgement by utilizing the ability to access external data through APIs. Another implementation would be AI voice analytics for fraud detection.

4 Automation

By automating your insurance company, you can digitize insurance, use the time to advance your company up the value chain, and concentrate on providing a better client experience and developing new products.

Carriers can solve customer difficulties by utilizing intelligent automation, also known as cognitive automation or hyperautomation, which combines the usage of RPA with Al technologies like machine learning, NLP, OCR, or computer vision. Automation can help you streamline processes and



reduce the amount of manual labor required by providing simple operational and administrative management. Major benefits carriers experience by automation are advanced business quote intake, faster payment processing, automated claims, and real-time damage assessment & repair estimate.

Without overlooking any crucial aspects, insurance automation can be utilized to automate routine operations including applicant pre-qualification, claims processing, policy management, regulatory compliance, and underwriting. Insurance automation helps sustainable growth through automation scalability and effortlessly connects with all of your business goals for ambitious organizations who want to stay ahead of the competition.

5 Augmented Reality/Virtual Reality

A technology trend that will soon overtake the carrier's worries of physical intervention and make the property insurance easier is Augmented Reality/Virtual Reality (AR/VR). Receiving fast customer help and claim processing in the event of an unexpected or unanticipated event lowers the risk of client turnover during crucial customer touch points. These procedures are iterative and time-consuming. All these steps will be changed utilizing augmented reality (AR) and virtual reality (VR) technology with almost real-time analysis. Using digital content that is available in real-time, such as audio, video, text, and photos, augmented reality enhances the physical world. Not only can AR improve claims, but it also improves customer service, damage estimation, remote guidance, and customer education.



AR/VR will help carriers in multiple areas such as risk assessment & mitigation, remote guidance to agents and employees, presenting demos for insurance plans, improving advertising campaigns, and employee training. Real-time information about potential hazards on the road, the speed of other vehicles, signboards, weather, or traffic can be supplemented by tracking and navigation systems. It will promote safer driving, which will enable insurers to spend less money on claim settlements.

Carriers may quantify damage, explain insurance policies, and warn clients about potential dangers using augmented reality. For brand promotion and marketing analytics, they also employ augmented reality.

Using augmented reality, carriers may innovate and create value in a variety of ways, such as the capacity to present interactive, practical, and entertaining content in a fresh way and boost customer engagement. The time is now for insurers to make use of this cutting-edge technology to deal with these urgent problems.

Digital insurance insights

Insurance technology spending in the US and the UK is expected to grow by more than 25% between 2022 and 2026.

Gross premiums are forecast to grow by as much as six times, to US\$722 billion by 2030, with China and North America expected to account for more than two-thirds of the global market.

Let's dive in, how technology contributes to the insurance industry's transformation.



How is digital technology transforming the insurance industry?

To keep up with the needs of insureds, insurers have had to digitize several areas of their business. In today's insurance industry, for any firm to compete in the market, it must meet the clients where and when they need a service.

There are several examples of how the insurance sector has transformed due to the delivery of digital insurance. For example, customers may connect with brokers through chat, claims can be processed automatically, and brokers can consolidate their data to work quickly and precisely.

Some prominent digital technologies that radically transform the insurance industry are:



Artificial intelligence

Architecture



Machine learning



Microservice Mobile Service



Predictive Analytics



Live chat & other technologies

Above-listed technologies allow insurers to access seamless services precisely and continue to do so for years to come.



What can you expect from the solutions provided by digital insurance companies?

For the next decade, digital insurance companies are on the journey towards the digital revolution.

According to a Gartner Report,

only 8% of insurance companies compare favorably on the composability index.



(This means we can look at 92% of companies adopting technology to take care of one of the business composability criteria.)

The insurance industry has been dynamic in adopting next-generation tech solutions to digitize the customer experience.

Today, to sustain and grow in the market, a digital insurance company must provide below mentioned digital insurance solutions to its customers:



Be more customer-centric

Companies must adopt a customer-centric approach to their business than the traditional product-centric approach. Today, customers want to be heard and understood more than haste to resolve their problems.





Provide omnichannel experience

An omnichannel experience helps the customer seamlessly communicate at all the touchpoints. Ensure that the communication is consistent. As an insurance provider, it enables your agent to do prior research on the likes/dislikes in person before conversing with them in person or over the phone.



Insurtech ecosystem

With the technological advancement in the insurance industry, a new term, 'Insurtech', was coined.

Insurtech refers to the innovative technologies digital insurance companies adopt to enhance their operations and cater to insureds in the best possible way. Modern, open software systems connected to the Insurtech ecosystem facilitate pricing, risk rating, and claims management.

Another study from Gartner suggests that in 2022, insurance companies are looking forward to increase revenue by **5%** and expanding their IT spending by **2.7%**







Scalable systems

A company needs to grow its customer base to achieve growth. Before digital insurance providers, insurance companies have struggled to grow, and the ones who grew faced complexities with sudden increases in customer acquisition. However, today with digital insurance, companies can scale and keep up with the business's growth powered by cloud technology. There is no escalation in the system even as the number of clients grows.



Coverage options

Traditional insurance companies lacked flexibility in providing coverage options to their insured. Digital insurance allows individuals and families with less comprehensive insurance needs have more straightforward options.



Benefits of paradigm shift brought by digital transformation in the insurance industry

Learn how innovation brought by digital transformation benefits the insurance industry.

1 Seamless customer experience with personalization

To offer a personalized experience, insurers must provide consistent service across all channels. This way, the customer feels at home at each transacted touchpoint. In addition, by taking insights from each transaction or conversation, insurers can better understand the insureds.

Digital insurance facilitates meeting customers at the right time on the proper channels. If followed a consistent tone in communication, insurers may become trusted advisers by designing services around the customer experience, which will increase client loyalty and, eventually, create a seamless customer experience.

2 Centralized operations using omnichannel approach

As discussed in the prior benefit, a centralized process is essential to increase the quality of customer interactions across the customer journey.

Traditional siloed experiences lack personalization and are





inefficient in resolving customer issues. Omnichannel supports the insurers in empowering them to cater to customers who eventually benefit from enhanced experiences, personalized information, and faster claim settlement.

A centralized operation assists insurers in improving client satisfaction and loyalty. Hence, a centralized process is a go-to approach for enhancing customer operations.

3 Churn prediction using data analytics

Even with extensive data collection, insurers have struggled to predict the market trend. Data collection is simple; however, it is cumbersome to store and analyze data to find patterns.

Today digital insurance companies can move beyond a transactional relationship with their policyholders by using data analytics to create personalized experiences and predict churn. This data further provides insights and patterns to enhance the satisfaction of the insured.

The digital insurance industry leverages AI throughout the customer journey and introduces intelligent workflows to utilize this benefit and implement it optimally.

4 Automated claim processing leveraging machine learning

Although machine learning is technically a subset of artificial intelligence (AI), it is a distinct component of a digital insurance business. Machine learning makes self-service applications and



portals for consumers viable and turns them into significant data collecting and analysis tools for insurers.

"Machine learning" is founded on the premise that "we can construct computers to analyze data and learn on their own, without our continual supervision," according to Forbes.

Machine learning automates typically slow insurance processes, such as claims processing, by automatically employing preprogrammed data, algorithms, and data supplied by consumers to serve clients in their most vulnerable moments.

5 Fraud detection & prevention

The main advantage of digital insurance apps is the massive amount of data they create. And although data helps insurers do their jobs better, and customers obtain better prices, it is also used to catch illicit activities.

Carriers may utilize the Internet of Things (IoT) to collect massive amounts of real-time consumer data, improve client profiles and coverage, and detect possible fraud.

Customers' social networks data may also help for any activity relevant to a claim using customer relationship management software. In addition, predictive analytics helps to discover trends in consumer behavior that could be a red signal for fraud





6 Faster application processing

Initially, insurance companies have been inefficient at handling data. It has been challenging for insurers to implement datarelated operations such as storing, retrieving, and securing. SaaSbased digital insurance companies enhance agility as insurers work faster behind the scenes and develop new products for key market opportunities in a fraction of the time.

Most digital insurers employ a SaaS-based solution that hosts, supports, and resources all-digital insurance tools and apps to maximize capabilities' potential. Start by empowering your insurers to serve the insureds in the best possible ways.





Core functions where digital technology can transform the process and bring efficiency (Use Cases)

Insurance works in an extensive ecosystem needing insurance agents to sell products; Insurance companies would do well to invest in its infra of their agents or at least in APIs to ensure seamless transfer of information across disparate systems.

Use Case 1: Applications Processing

Use Case 2: Claims Processing

Use Case 3: Churn Prediction

Use Case 4: Fraud Detection & Prevention



Use Case 1: Applications Processing

Problem Area: Old school customer-facing system

Solution: Centralized systems

It has been challenging for insurers to extract information from high volumes of documents. Insurers have been chasing to be more price-oriented than customer-oriented.

Insurers must adopt centralized systems and optimize all interactions across channels to be customer oriented. An integrated CRM helps strengthen the segment-wise customer relationship, resulting in repeated profits and boosting sales.

Document capture technology enables insurance companies to automatically extract relevant data from application documents and accelerate application processes with fewer errors and improved customer satisfaction.



Use Case 2: Claims Processing

Problem Area: Cumbersome claims processing

Solution: Improve operational efficiency, from claims registration to claims settlement.

The insurance industry has been one of the toughest for customers to comprehend. It seems so complex that many insureds want agents to handle their portfolios. On the other hand, agents have fallen short of efficiently offering claims processing.

For years, customers have faced the cumbersome claims processing system, but AI has improved digital insurance operations. Insurers are starting to pick up self-service applications and help themselves across insurance portals.

Al has enhanced the traditional sluggish insurance functions – like claims processing. In addition, Al automates operations by utilizing data shared by customers. Many insurers have already started to automate their claims processes. Automating claims processes reduces the claims settlement time and enhances the customer experience.



Use Case 3: Churn Prediction

Problem Area: Lower customer retention & acquisition issues

Solution: Implementation of NBO by Cygnet Infotech (Next Best Offer Model)

Acquiring a new customer can cost five times more than retaining an existing customer.



So, it would be best to focus more on reducing the churn. So, now, you will ask, "How to reduce churn?"

Well, how about having a technology that predicts the possibility of churn and provides a solution that boosts retention.



NBO Model developed for the Insurance Industry by Cygnet Infotech

Purpose: Minimise churn and boost customer acquisition



Initial Model

Apply Artificial Intelligence (AI) to new customers on perdition-based selling

This first model is for attracting the new insureds with a 'down-sell' or 'no-change' recommendation generation using Al. Al makes these recommendations by using the insured's personal information & FAS score. It is lucrative for the customer to adopt a less risky option or even stick to similar insurance.



Affordability Model

Apply Artificial Intelligence (AI) based models on the payment history, monthly Income, disposable Income, and credit information such as FAS grouping.

The second model is the affordability model, which suffers from the clustering data problem. However, Al considers more data and comes with an added option that 'upsells' depending. So, unsupervised innovative insurance technology now decides whether to 'upsell,' 'downsell,' or have 'no-change' for the insureds.





RFM Model

To compute Recency, Frequency, and Monetary. This model creates the foundation for the NBO model, aka the next best model.

Next, RFM forms a 'Collection' model that tracks the customer's recency and frequency of monetary transactions. Then a probable collection is made to understand the customer's spending capacity. RFM and collection are crucial for our next model.



NBO Model (Next Best Offer Model)

To offer the right product to customers according to their affordability and spending capacity before the churn.

As mentioned above, Al forms probable collections leveraging insights from the previous models. And Al formulates the best possible option for the insureds. Insureds will be offered an insurance solution that they can't deny. This model will consider all the aspects of their

This model will consider all the aspects of their behaviour and spending patterns with a touch of personalization.





Use Case 4: Fraud Detection & Prevention

Problem Area: Digital is more prone to data infringement

Solution: Leverage AI & ML to track fraudulent patterns

The most significant benefit of digital insurance applications is the sheer volume of data. And although data helps insurers do their jobs better, and customers obtain better prices, it is also used to catch illicit activities.

Insurers, for example, can check consumers' social accounts for any behavior relevant to a claim using customer relationship management software. Predictive analytics helps to identify patterns in client behavior that might indicate fraud.

Frauds are unethical and are losses to the business; building an Al/ML model which can classify insurance fraud can cut losses. Al & ML will help insurance companies to identify potentially fraudulent claims faster and more accurately and flag them for investigation.

For instance, Cygnet Infotech has developed a model that helps auto insurance companies to capture minute details of the driver with image recognition technology while scrutinizing accidental claims.



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Cygnet DIGITAL ENGINEERING SERVICES

Automate & Optimize critical insurance processes in no time with the help of our ready to deploy bots

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