

**BUSINESS 4.0™:**

**FROM  
PROTECTION TO  
PREVENTION,  
POWERED BY  
DIGITAL**

Industry focus : **Insurance**

Winning in a Business 4.0™ World: a TCS Study tracks the adoption and impact of Business 4.0



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# B

Business 4.0™ is the next wave of change breaking over organizations across the world. Digital technologies such as the cloud, the internet of things (IoT), analytics, automation, robotics, and artificial intelligence (AI) are vital enablers of this transformation, but it is not enough to use these to simply mechanize existing functions.

Instead, firms are using technology as a foundation for four critical business behaviors that will help them move to the next level:



**Driving mass personalization** – personalizing products and services to a market of one customer, often even of one transaction, and at scale.



**Creating exponential value** – adopting business models that leverage value from transactions at multiple levels and address new markets.



**Leveraging ecosystems** – collaborating with partners inside and outside the supply chain to create new products and services.



**Embracing risk** – moving beyond rigid planning and operational barriers with an agile strategic approach.



# T

CS Business 4.0 Global Study shows the way forward by helping organizations benchmark their progress against peers.

This report discusses the level of adoption and impact of Business 4.0 in the insurance sector, the benefits industry players have seen, and their plans for the next three to five years. We foresee an upswing in the opportunities for growth available to the insurance industry players as the sector switches gears and moves to the model of prevention from protection, enabled by digital technologies. We consider some clear successes – such as areas where the industry has witnessed increased appetite for risk and demonstrated innovative use of emerging technologies such as IoT, AI, and blockchain – and highlight areas where there is room for improvement.

ABOUT THE

# RESEARCH



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CS surveyed 1,231 respondents from firms across 11 industries and 18 countries, including 184 executives working in the insurance sector.

All firms included in the survey report annual revenues of at least \$500 million. All survey respondents were either directly involved in or were aware of their firm's digital transformation plans. Almost half of the respondents (42%) were from the C-suite, while the rest were manager-level and above.

The survey was conducted in November – December 2018. In addition, we conducted in-depth interviews with 30 experts and business leaders from across industries worldwide.

# Key Findings

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The rapidly evolving digital landscape is slowly but surely changing the face of the insurance industry. Insurers have been able to customize products for individuals by leveraging data from wearables and IoT sensors, and by deploying advanced analytics. In addition, digitalization has helped the industry get on the path to developing lasting relationships with customers, delivering value beyond protection and savings, as well as, effectively utilizing internal data and capabilities of ecosystem partners.

While such capabilities are not yet perceptible in all segments of the industry, our research shows that the insurance sector compares favorably with other industries in its adoption of Business 4.0 behaviors.

Our findings suggest that organizations that adopt all four of these behaviors – the ‘leaders’ – are more likely to report and anticipate strong financial performance. Insurance respondents account for 16% of the leader group (see Figure 1).

### Leaders, early adopters, and followers

We have identified three distinct groups in the survey based on their adoption of Business 4.0 behaviors:



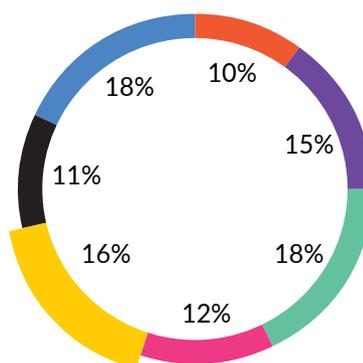
**Leaders:** organizations that have adopted all four behaviors



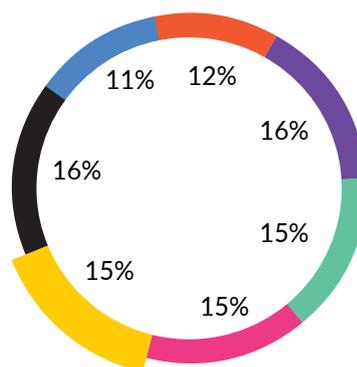
**Early adopters:** organizations that have adopted one, two, or three behaviors



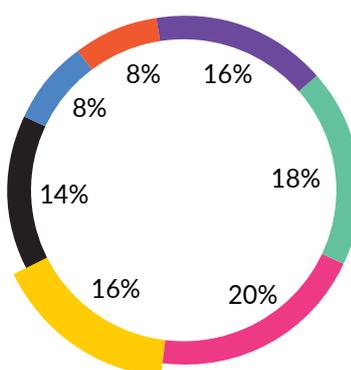
**Followers:** organizations that have adopted none of the behaviors



Leaders



Early adopters



Followers

- Travel and hospitality
- Life sciences and healthcare
- Insurance
- Banking and financial services
- Retail and CPG
- Telecom
- Manufacturing

**Figure 1:** Industry-wise share in the leaders, early adopters, and followers groups



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Following are our key findings for the insurance industry:

**Gains from Business 4.0 are building.** Insurers pursuing personalization are seeing benefits in the form of higher value and volume of customer transactions, as well as reduced customer churn. Those developing business models that create new value have been able to expand their addressable markets. Wider participation in platform-based ecosystems will multiply insurer benefits from Business 4.0.

**Digitalization and agile are helping insurers rethink risk – moving beyond ‘protection’ to ‘prevention.’** In a risk-focused business, insurers’ appetite for taking risk appears to be on the rise, with 41% of the respondents willing to radically transform their business model in the near future despite stringent regulatory regimes. This is likely due in part to their adoption of cloud and the implementation of agile practices beyond IT as faster and leaner product development reduces the potential costs associated with failure, increasing the ability to learn and adopt by failing fast.

**Seeing off market disruption and the insurtech threat.** Insurance products have witnessed commoditization as a result of unconventional players like insurtechs and others entering the space and effectively disrupting the market dynamic. Given the direct accessibility of insurance to consumers via aggregator websites, coverage is now increasingly differentiated through price rather than brand association or customer service. Leading insurers have responded to this current trend by becoming more active in retail consumer ecosystems. Mastering data, cloud, IoT, smartphone apps, and in some cases even AI, are integral to these efforts.



# Seeking the Fruits of Transformation

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# W

With technology changing the way products and services are delivered and consumed, it is no surprise that insurers are embracing digitalization. Established insurance companies may not have the reputation of digital-first movers but faced with competitive challenges from nimble insurtechs, many of them are vigorously pursuing product and process innovation.

Property and casualty (P&C) insurers, for example, are using IoT sensors and big data analytics to create new products – such as Liberty Mutual’s home insurance solution with Google Nest<sup>1</sup>, Progressive’s usage-based car insurance scheme, or Snapshot<sup>2</sup> – utilizing abundant new data. Life and annuity (L&A) providers are using smartphone apps and intelligent chatbots to improve the quality of their customer interactions. Brokers and reinsurers are beginning to use the same technologies to change the way they interact with B2B customers and partners.

1 Liberty Mutual Group, Liberty Mutual Insurance and Nest Partner to Reward Customers For Protecting Their Homes With Innovative Technology, accessed June 14, 2019, <https://www.libertymutualgroup.com/about-lm/news/news-release-archive/articles/liberty-mutual-insurance-and-nest-partner-to-reward-customers-for-protecting-their-homes-with-innovative-technology>

2 Progressive, Snapshot means BIG discounts for good drivers, accessed June 14, 2019, <https://www.progressive.com/auto/-discounts/snapshot/>

**T**

These efforts help explain why the insurance industry compares favorably, versus the other sectors covered in our research, in the adoption of Business 4.0 behaviors. Insurers outnumber other surveyed companies in three of the four pillars (see Figure 2), suggesting that large parts of the industry are beginning to capitalize on the opportunities that digitalization presents.

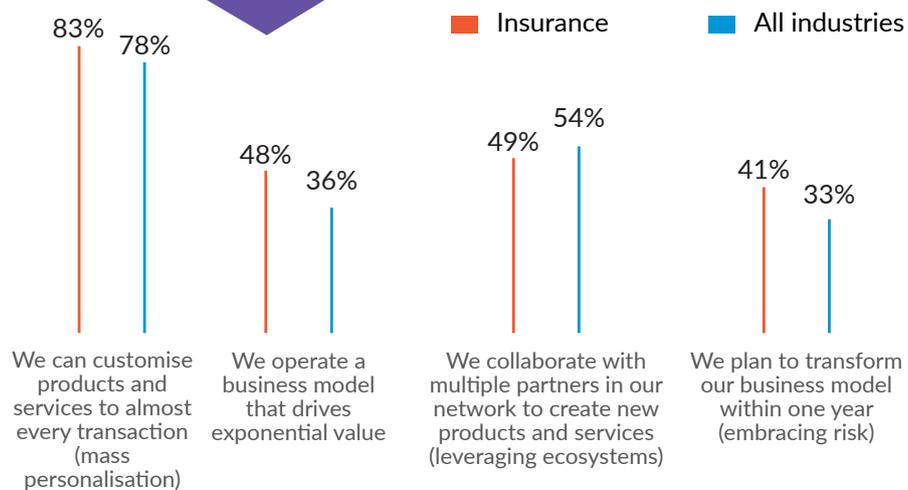


Figure 2: Adoption of Business 4.0 behaviors in the insurance sector

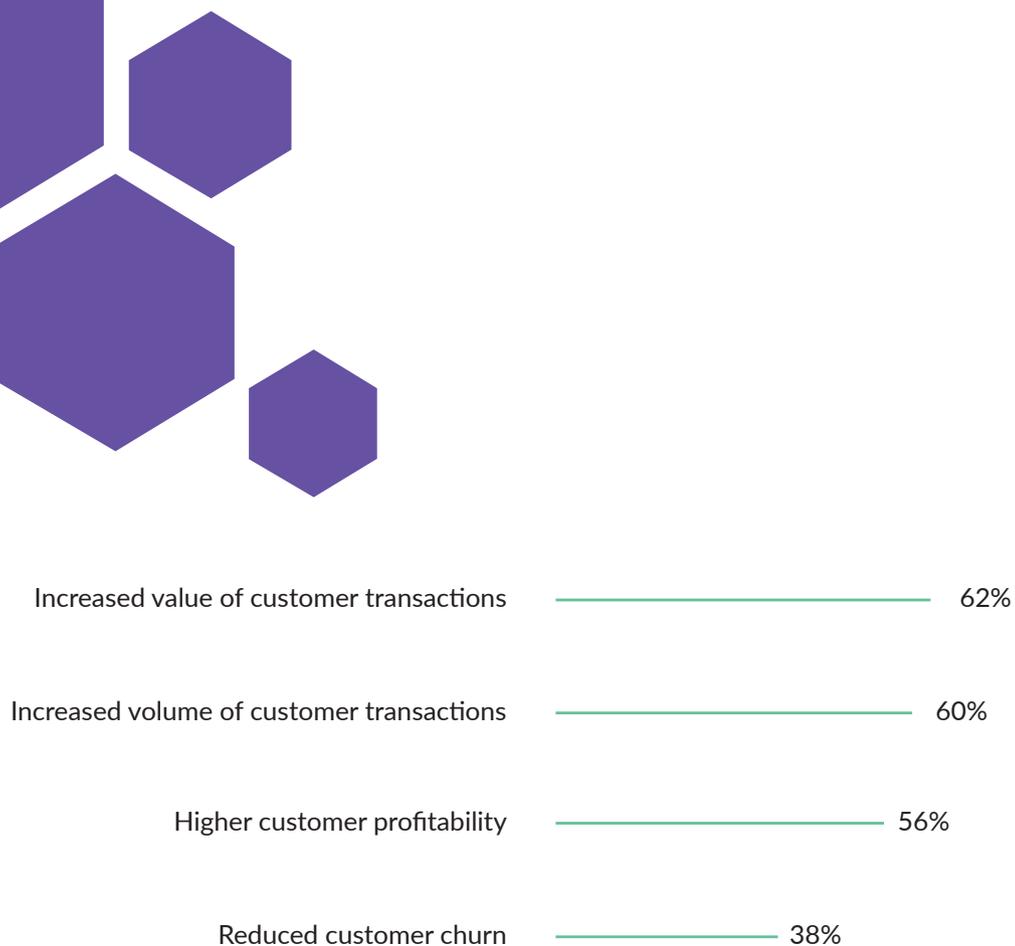


## Improving profitability by insuring segments of one

Business-to-consumer (B2C) insurers are leveraging digital technologies to drive personalization, although most are at the beginning of this journey. Big data analytics, IoT, and - to some extent - AI are being put to good use for product pricing. For instance, IoT sensors in cars generate data about the drivers which is used to determine auto-insurance premiums. Additionally, personalized offers on health and life insurance products can be generated using real-time data gathered from wearable devices. All of these are excellent examples of how insurers use existing capabilities to serve segments of one.

# F

urther, insurers building on these capabilities have been able to realize bottom-line gains (see Figure 3). A majority of respondents report increased value and volume of customer transactions, and ultimately higher profitability for the company. Personalization in these and other areas, including customer service and claims processing, are also helping reduce the customer churn.



**Figure 3:** Benefits from mass personalization for insurance firms



## Insurers take the lead in creating exponential value

Companies in the insurance sector are more likely to operate on a business model capable of creating new value than those in other industries, according to our survey.

How do they go about this? Chiefly, according to K Krithivasan, President, Banking, Financial Services, and Insurance, TCS, by monetizing the vast amounts of data they have at their disposal and using new digital capabilities. He cites the example of AXA, that uses blockchain technology to provide automated flight delay insurance payments when their customers' flights are delayed, thus wiping off the claims process.<sup>3</sup>

<sup>3</sup> Finextra, AXA launches blockchain to cover late flight compensation, accessed May 30, 2019, <https://www.finextra.com/newsarticle/31093/axa-launches-blockchain-to-cover-late-flight-compensation>

# E

Elsewhere, auto insurers are creating new revenue streams by offering car maintenance and introducing customized products like pay-as-you-drive motor insurance. While health insurers – leveraging the IoT, wearables, and advanced analytics – earn customer loyalty from health monitoring and advisory services.

A shift to prevention from protection is enabling insurers to deepen their customer engagement on a continuous basis.

Insurers pursuing new value creation in such ways are deriving benefits in several respects, including profits and market expansion (see Figure 4). A majority have widened their addressable markets and have been able to reach new geographical markets. Furthermore, insurers have been able to create additional value with the help of the new business models they have developed with partners in adjacent ecosystems.

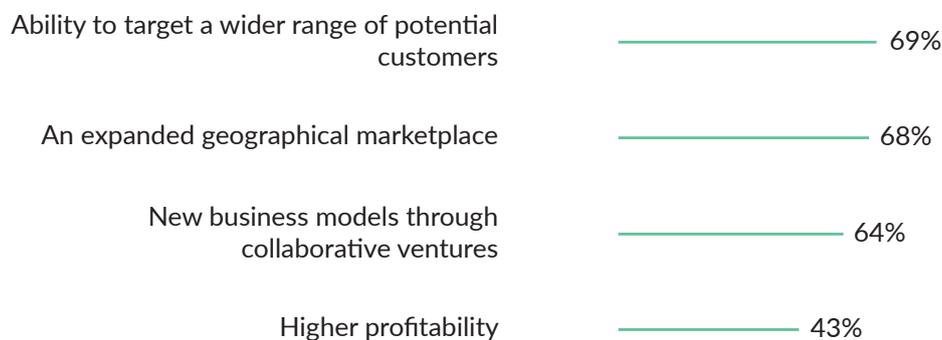


Figure 4: Benefits for insurance companies from operating on an exponential business model

# E

## cosystems are key to success in a changing industry

Ecosystems – whether platform-based to deliver connected services or more traditional alliances with players (to drive innovation, improve marketing initiatives, and so on) – offer insurance companies access to resources that create new value.

Robert McGill, Head of Software Engineering at Standard Life Assurance, believes that ecosystems can offer some insurers the opportunity to build customer relationships that didn't exist previously. "In industry segments such as life and annuity, where there is limited engagement with customers, insurers are more likely to reach them by partnering with other organizations that are already active in customers' lives."

However, compared with firms in other industries, insurers have been somewhat less likely to collaborate within ecosystems to develop new products and services (see Figure 5). Even so, half of the insurers in our survey use external networks and are rethinking the business models.



Figure 4: How insurers leverage their wider ecosystems



nsurers develop and offer services as part of connected car platforms, for example, and some have established such platforms of their own.<sup>4</sup> “Insurers need to inhabit the ecosystems that are forming around all manner of products and services,” says TCS’ K Krithivasan.

An example is the savings platform Yongo by Belgian AG Insurance.<sup>5</sup> The product achieves multiple purposes for different stakeholders. For parents, it lets them plan long-term investments for their children and share some respects, including with their friends and family. For children, who save for immediate asks like a guitar or birthday celebration, it helps inculcate a habit of saving at an early age. This helps build brand recall across a diverse customer base. For friends and family, it not only lets them contribute to a loved one’s future, but also builds a community that they could tap for their own needs in the future.

<sup>4</sup>Medium, Connected Car Strategy for Insurance Players, accessed May 30, 2019, <https://medium.com/@ResourceLeaders/-connected-car-strategy-for-insurance-players-980beec6a917>

<sup>5</sup>Yongo, AG Insurance – Yongo, accessed June 14, 2019, <https://www.yongo.be/nl-be/ag-insurance>

### Insurers have a growing risk appetite

Willingness to take risks that can change the business is a core attribute of a Business 4.0 organization. Insurance companies are more accustomed to modelling and pricing different types of risk than taking risks in their own business. Yet, a large number of insurers in the survey appear ready to take on such risks. Our survey finds 36% of insurers adopt planning cycles of a year or less and are flexible with resources and budgets, as required by market conditions (see Figure 6). For example, four in 10 respondents say that they intend to ‘fundamentally change’ their business model within the next year (see Figure 2).

In the words of Girish Nayak, Chief of Customer Service, Operations & Technology at ICICI Lombard General Insurance: “If you want to be ahead of the rest, you need to try something new.”

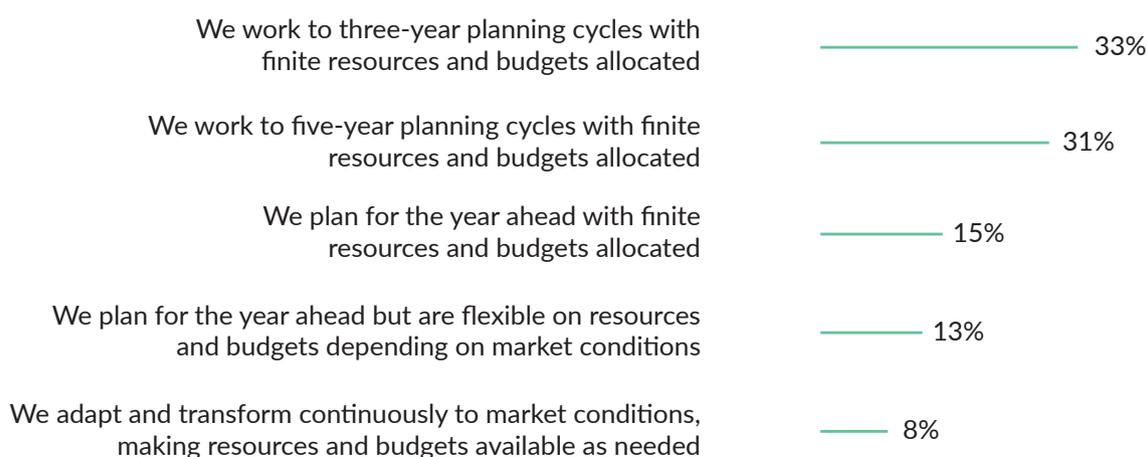


Figure 6: Insurers' appetite for risk when planning ahead

# Being Agile in a Machine First™ World

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# A

gile methodologies are being widely adopted by insurers. Over half of the survey respondents say they are able to speed up technology projects significantly thanks to agile.

According to Robert McGill of Standard Life, “In the past, it might have taken us two or three years to build something, whereas today we can deliver change in weeks, days or hours and test them with customers iteratively rather than taking big steps.”

Debunking outdated perceptions of the industry’s conservatism, the insurers in our survey are ahead of industry averages in all aspects of digitalization (see Figure 7).

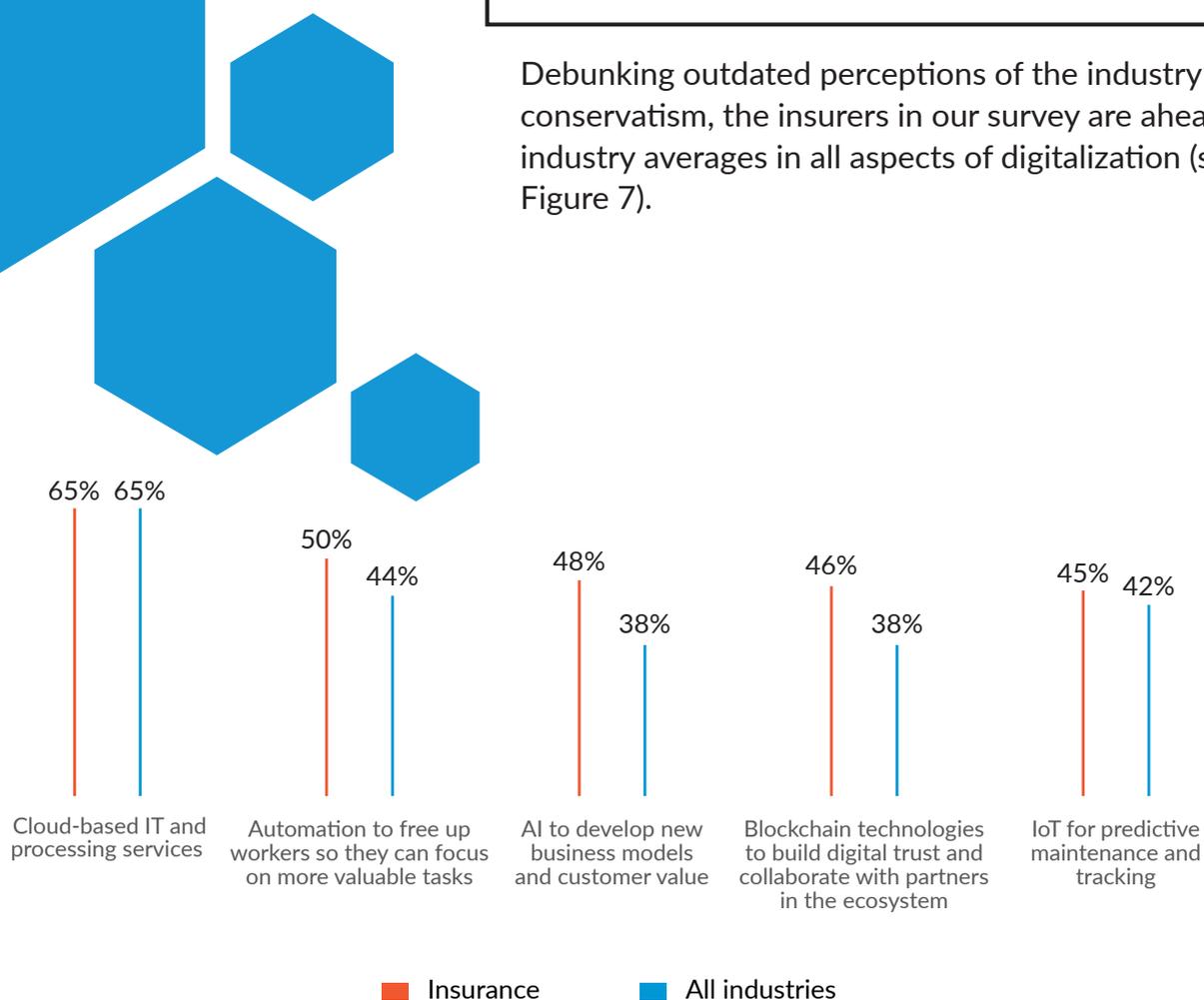


Figure 7: Technologies adopted by insurers today



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Two-thirds of insurers access cloud-based IT processes and services, and marginally fewer say cloud is their primary IT environment today. Improved ability to analyze data – central to several of the capabilities mentioned above – is the oft-cited cloud benefit by insurers.

Automation technologies such as robotic process automation (RPA) are integral to insurers' efforts to streamline front- and back-office processes and unlock cost efficiencies. A greater number of insurers, relative to peers in other industries, also aim for automation to free up the staff to focus on activities of greater value.

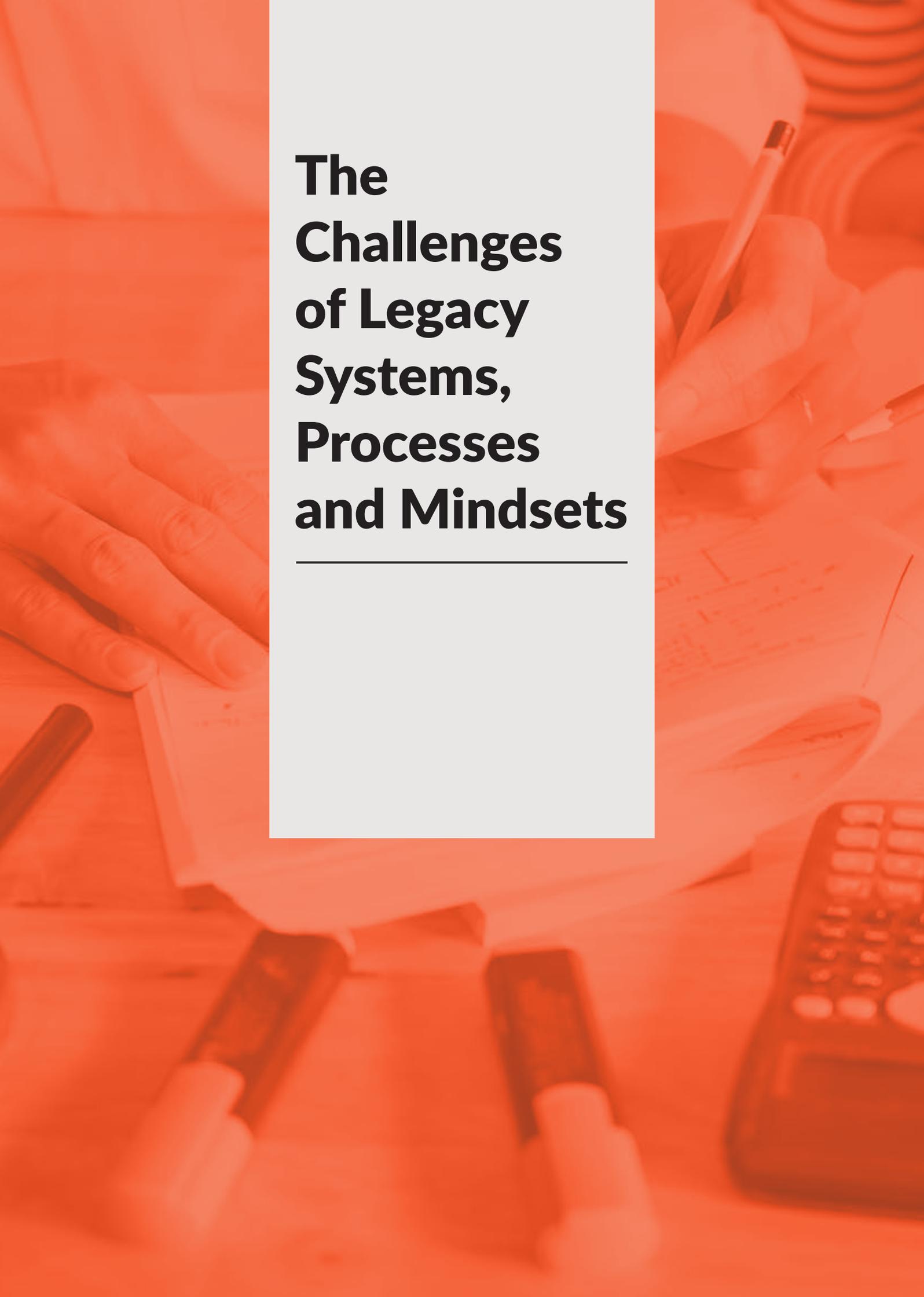
Some insurers appear to be using AI efficiently—nearly half of those surveyed are using it to augment business models and create new value. Several insurers are using AI-powered chatbots to send and receive information from customers and field agents.

AI is also being used to transform claim processing, with visible benefits for customer relationships and operating efficiency. The recently launched AI-based health claim approval by ICICI Lombard General Insurance is a good example. “This has significantly decreased the amount of time needed for this process,” says Girish Nayak. “Using AI, claims are processed in about a minute and a half. When data is received from the hospital, it is directly fed into the system using ICR/OCR technology and the AI decides whether the claim is medically admissible and the amount of claim authorization to provide.”



nsurers are warming up to the abundance of data generated by IoT ecosystems. Companies are utilizing the data to analyze insured risk in new ways, as well as sharing insights with customers to deepen engagement. An insurer in Canada launched a usage-based auto insurance product, for example. The solution uses sensor data from the car and the driver's mobile phone as well as AI machine learning algorithms to develop 'driver signatures'. This helps them differentiate between trips by the owner versus others – this data can be used to make faster claims decisions.

Insurers are also investing in blockchain technology to set up flexible and trustworthy contracts that can be shared among partners and end customers. A large US-based global broking firm developed a proof of concept for commercial co-insurance contract management using blockchain. This product enables a consortium of broker and commercial insurers to set up co-insurance policies using smart contracts.



# **The Challenges of Legacy Systems, Processes and Mindsets**

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# E

established companies in all traditional industries are weighed down, to some extent, by legacy IT systems. Large insurance companies, however, arguably bear a heavier burden than most due to the long-term nature of their business cycles and continuously evolving regulatory regimes. According to K Krithivasan, many firms struggle with a proliferation of different policy administration systems inherited from previous mergers and acquisitions. Moreover, these and other legacy systems are often fully depreciated (paid for) assets, creating an additional hurdle for insurers when approval for investment in new technologies is sought.

Inflexible or outdated technology figures prominently among the barriers to adoption of the Business 4.0 behaviors, as cited by survey respondents (see Figure 8). It is the most frequently cited obstacle, for example, to progress in driving personalization and embracing risks. In this situation, launching new services or processes using cloud-based applications or infrastructure are preferable to legacy on-premise systems.



Figure 8: Top barriers to adopting Business 4.0 behaviors



# W

hen it comes to leveraging ecosystems and using data to create high-value new services, security concerns are a bigger deterrent than other factors. In this regard, insurers are no different to the organizations in the other surveyed industries. Tighter regulation in a number of areas – for example, the European Union’s GDPR rules, new cyber security requirements for insurers in the US, as well as, financial sector regulations such as Solvency II – dissuade insurers from deploying new technologies more aggressively.

Another major inhibitor that insurers need to overcome to progress toward Business 4.0 is legacy thinking. Survey respondents view traditional corporate culture as a significant barrier to willingness to undertake transformation risks. Legacy mindsets sometimes constrain insurers’ ability to adopt new technologies and innovative new ways to deliver their value proposition. Additionally, the difficulty of generating an early return on investment in new technologies holds back many insurers. The ability to adopt a longer-term view of what success looks like can loosen the constraints on digitalization.

# Conclusion

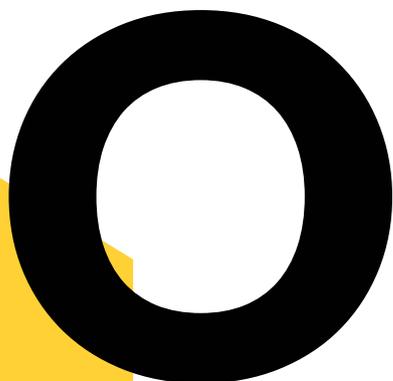
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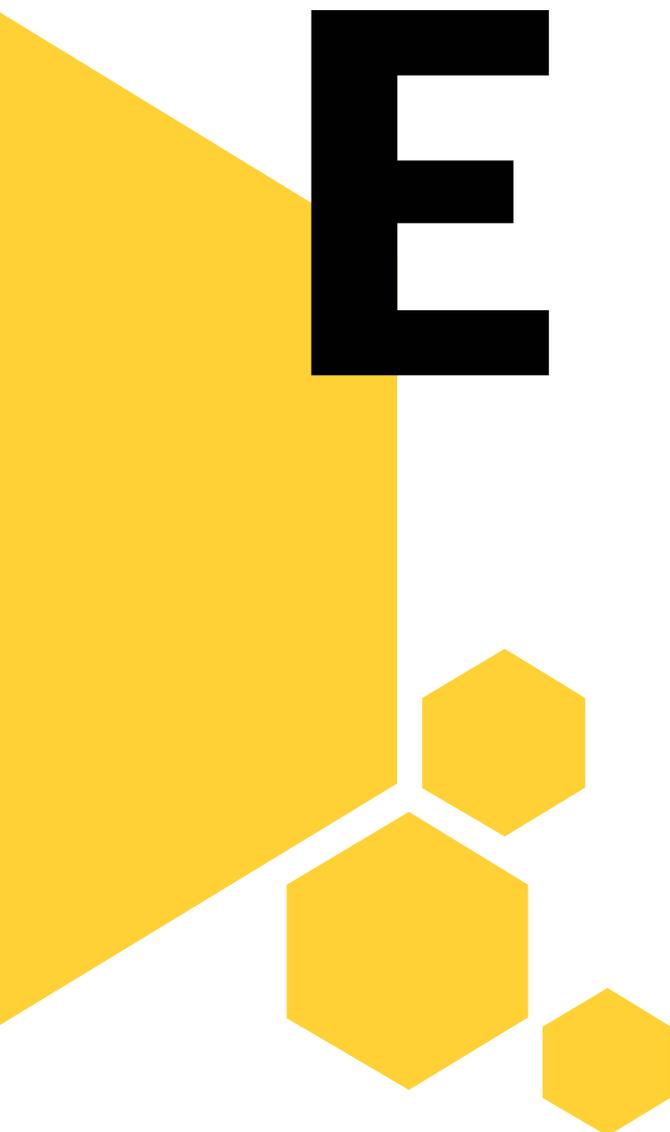
Our research makes it clear that insurers are progressing toward Business 4.0 adoption, albeit at different speeds. In retail-oriented insurance lines, agile online providers are challenging established providers to use digital formats and introduce new products as well as radically improve customer interactions. Several insurers are responding to this call for action. Most insurers taking part in our survey are realizing the benefits from digitalization in one form or another – whether in terms of profitability, productivity, expanded market reach, or faster time to market.

Lessons learned from the research can help guide insurers as they continue on their journey to Business 4.0. These include:

**Leveraging partnerships to evolve within ecosystems.** Insurers have long maintained partnerships with players inside and outside the industry. The ecosystems taking shape today, however, are digital. Going forward, the ability of insurers to effectively partake in such environments and integrate the products and services at points of consumption with the primary products and services will determine their ability to go beyond protection toward prevention by deepening engagement with end customers.

**Finding a new wave of talent.** Insurance company leaders have long complained of the inability to attract suitable talent. Given the traditional nature of the industry, developing top-notch digital capabilities and embedding the Business 4.0 behavior - key to the success in today's marketplace - requires exceptional, hard-to-find expertise. <sup>6</sup> This need to fill the high-skilled roles can provisionally be addressed by sourcing talent through the 'gig economy.'

<sup>6</sup> Heidrick, Insurance industry disruption starts with talent, accessed May 30, 2019, [https://www.heidrick.com/Knowledge-Center/Publication/Insurance\\_industry\\_disruption\\_starts\\_with\\_talent](https://www.heidrick.com/Knowledge-Center/Publication/Insurance_industry_disruption_starts_with_talent)



# E

**Embracing agility to ramp up targets.** Insurers need to apply the agile methodologies that have transformed IT across their businesses. The costs of failure can be reduced by changing the business models and rapid product launches. This, in turn, would enable insurers to accept higher levels of risk.

**Today's foundations yield tomorrow's dividends.**

Reimagining processes from ground-up, considering all available digital enablers, and overcoming the grip of legacy systems are painstaking efforts that will take time to deliver benefits. However, once in place, they will clear the field for Business 4.0 behaviors to take root.

Future-thinking insurers need to take action today to reimagine business models, rethink customer engagement, and develop new market spaces.

**To know more**

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