Turning Data Into Revenue:
How P&Cs Can Profit From Digital Disruption

In this fast-paced digital world the property and casualty industry must reassess its value proposition to move beyond traditional premium pricing, claims processing, and policy underwriting.

Digital Insurance

It used to be sufficient for property and casualty businesses to simply insure customers for the right price with just enough service.

Not anymore.

P&C—like every other market—is being disrupted by the rapid and pervasive adoption of digital technologies that range from the ubiquitous smartphones to the Internet of Things (IoT). Because of this technological tsunami, customers are no longer just buying policies: As they shop for insurance, they are increasingly encountering digital offerings with far more compelling value than traditional policies. And, more often than not, they're voting with their wallets for the superior economics, safety, and convenience that P&C innovators can offer.

To succeed in this new marketplace, P&Cs must therefore do much more with the massive volumes of available data than simply hone premium pricing or streamline claims processes. Instead they must fundamentally rethink their value proposition in the context of digital—a context that includes big data, advanced analytics, and user-friendly visualization.

That won't be easy. But it's certainly possible. If a start-up can make itself worth $1 billion in five short years simply by cracking the digital code for selling razor blades, insurers can certainly raise their own market value by doing the same for P&C-related risk.

This white paper offers research-based guidance to P&C business leaders who are pursuing true competitive differentiation in the new digital marketplace. It suggests three keys to successfully navigate digital disruption:

KEY 1:
New business models that monetize data

KEY 2:
Nimbler, more efficient digital go-to-market processes

KEY 3:
Transformation of organizational culture

By embracing these three keys to digital success, insurers can significantly grow their businesses and secure a strong competitive position in the rapidly changing P&C market.

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KEY 1:
## New business models that monetize data

Insurance companies have always been profoundly data driven. Actuarial science, after all, is among the most data-intensive core disciplines of any business category.

And the business model by which P&Cs translate actuarial data—as well as other types of data such as customer demographics and property attributes—into income is centuries old: It uses available data to price risk, then sets premiums as appropriate to achieve target return on capital. In an open market, insurers can also pass on their financial exposure, as prudence requires, to reinsurers who can then make informed, data-based decisions about the pricing of risk.

This long-standing model for monetizing data remains useful and relevant. Affordably priced policies, combined with prompt claims service, still have plenty of value and appeal to both consumers and businesses. But in the new world of pervasive data and digital communication, it is far from the only possible model for P&Cs.

In fact, P&C innovators are already demonstrating exciting ways that insurers can leverage data to differentiate their value proposition:
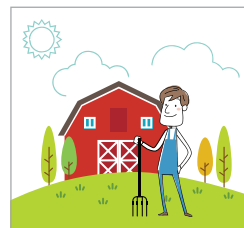
• A crop insurance company leverages hyperlocal weather sensors combined with customer-specific data on crops being grown and their planting time—along with third-party data on how environmental factors impact those crops as they grow—to automatically and proactively make claims payments independent of actual on-site damage inspection. This model speeds compensation to the insured while dramatically reducing the cost of field inspection operations. It also enables the insurer to acquire customers over a larger geographic area more quickly and at less cost.

• An auto insurer leverages its access to both customers' in-vehicle telematics and a popular ride-sharing service's GPS-enabled driver activity data to automatically track when those customers are working for that service. This usage-specific model allows the company to provide pay-as-you-drive supplemental auto coverage that is precisely rightsized for each driver's unique needs—addressing a rapidly emerging market in a competitively differentiated manner.

• A commercial property insurer targets the growing market for assisted senior housing with "smart home" policies for community operators that implement IoT technologies such as temperature, water and motion sensors, as well as voice-based intelligent personal assistants such as Amazon Echo and Google Home. By working with these communities to enhance resident safety even as their mobility, hearing and other faculties diminish over time, the insurer can reduce premiums while also helping property operators competitively differentiate their brand.

These specific examples highlight a broader set of truths about the new value proposition emerging in the P&C industry—and the central role data plays in those value propositions.

TRUTH: NEW P&C business models leverage new types of data from new sources. Many of these sources have come to be classified as the Internet of Things: weather sensors on the ground, telematic devices in vehicles, networked sensors in commercial buildings and homes, etc. There is much more to the new universe of data than just IoT, though. As people increasingly use apps for everything from social media to ride-sharing and other commercial activities, their behaviors generate new types of data that can be used both in real time and for historical risk-rating purposes. Some of these sources can be tapped into directly. Others are available via third-party aggregators. But regardless of how P&Cs may source it, new types of data are emerging every day. According to Boston Consulting Group, business models that leverage these IoT and non-IoT data sources can reduce P&C expenses by as much as 10% of premiums and claims by as much as 8%.[1]

TRUTH: New P&Cs business models often entail new types of partnerships. Digital value isn't just about what insurers do internally. It's also about how they extend their value chains in both directions. On the supply side, this may entail tapping into new data sources from third parties that can include anything from IoT data to social media feeds. On the distribution side, new partnerships can include everything from corporate vehicle fleet management service providers to online retailers. Digital makes it inherently easier for these potential partners to relay information back to P&Cs about their customers' risk exposure events ("Our customer has a vehicle in this condition." "Our customer has made this big-ticket purchase." etc.) So, insurers no longer need to depend on their own direct discovery and underwriting of risk to add value.

[1] Boston Consulting Group, "Differentiating in a Radically Changing Marketplace," 2017

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TRUTH: P&Cs need sophisticated technology to convert raw data into marketable value. In most cases, that technology includes some sort of analytics and/or artificial intelligence heuristics. These sophisticated techniques allow insurers to discover otherwise hidden patterns, trends and correlations across complex data sets. Through self-learning techniques, these analytics can quickly and autonomously become more accurate over time. Such progressive improvements in accuracy are especially important for alerts and notifications, where the value hinges on a minimal number of false alarms. Visual insights can also be vital for ensuring that people (whether customers, internal staff or other stakeholders) reap the full value of underlying data and associated analytics.

TRUTH: Innovative data-driven P&C solutions must target underserved markets. The examples above aren't just about the clever use of data. They're also about targeting an underserved market with significant potential for monetization. As baby boomers age, senior housing represents a significant opportunity for those who can get the financials right. And as the sharing economy continues to expand, participants will require new coverage options that enable them to flexibly segment personal and business use of their resources. The business of food production is also changing in ways (such as de-diversification and mechanization) that make managing its risk more condition based than outcome based. P&Cs therefore don't just need to survey changes in data availability, they also need to cast a keen eye over the major shifts occurring in consumer and commercial markets so that they can pinpoint lucrative targets for innovation.

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Of course, many P&Cs are already leveraging IoT and analytics to more accurately price their coverages and better service their customers. But the opportunities to monetize data go well beyond good driver discounts and accelerating policy binding. Uber didn't assemble the largest vehicle fleet in the world by merely making incremental improvements to the taxi service business model. This innovator turned data about vehicle availability into transportation-on-demand. To achieve similar results, P&Cs will have to leverage data in similar ways.

KEY 2:
Nimbler, more efficient digital go-to-market processes

As noted above, P&Cs require sophisticated technology to operationalize new business models that monetize data. The technical challenges associated with digital innovation, however, require much more than simply acquiring some new software here or some new skills there. They require a complete rethinking of the digital go-to-market process.

That's because conventional approaches to the acquisition of new IT capabilities are inadequate on multiple fronts:

They're too slow. Any IT leader who went through the process of bringing a new technology onboard in recent years can attest to the extended amount of time it took to research capabilities, get staff properly trained, build "sandbox" pilots, identify viable initial-use cases, develop deliverables for those use cases—and finally get something of real business value into production. Time-to-market pressures on digital innovators are too intense to accept such protracted processes, so P&Cs need a much more time-compressed approach. Companies that host much of their core data and application logic on the mainframe will likely also find that their current waterfall development processes are too slow and inflexible to support timely digital innovation.

They're too expensive. Slow, labor-intensive processes tend to be expensive as well. Costs include the time people spend doing research and development, outside services such as training and contractors, the provisioning of sandbox environments as well as management, security

and compliance measures. It all adds up. Then there are the software licensing costs. Software-related experimentation often requires IT to start spending money on licenses before it even truly understands the relevance of a technology to its goals. The result is both wasteful capital spending ("shelfware") and unexpected project costs. These financial factors and others can seriously inhibit innovation.

They're insufficiently open. As noted above, the creation of new digital value propositions by P&Cs will almost universally require the formation of new partnerships that feature close ongoing digital interactions. Most P&Cs have not implemented data architectures that readily lend themselves to streaming data intake on the supply side or externally "digestible" analytic output publishing on the distribution side. To adaptively enable new digital value chains, a better approach to third-party intake and output is a must.

They're not iteration-friendly. Experienced innovators will tell you that their successes have invariably required them first to endure multiple failures. That's simply a fact of life. So, for digital innovation to be sustainable, it must be inherently iteration-friendly. One aspect of iteration-friendliness is speed—since go-to-market teams need to find out in a hurry if they're on the wrong track. Another is cost-efficiency, which keeps the price of failure tolerable. But there's a third component of iteration-friendliness: flexibility. If a technology pipeline locks a P&C into the wrong architecture, rules or other solutions attribute too early in the game, and it won't allow mistakes to be made and remedied with sufficient frequency. IT therefore needs technology adoption models that are highly agile.

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They're susceptible to staleness. P&Cs tend to lag behind other industries when it comes to adopting new technologies, due in part to institutional aversion to the risks associated with early adoption and also because of an innate tendency to accrue technology debt in the name of investment extension. In previous decades, when the pace of technology was more manageable and aggressive innovation was less necessary, this may have been a financially prudent approach. Now it amounts to little more than staying too long at the party.

These downsides of current digital go-to-market processes highlight the need for P&Cs to become nimbler and more efficient when it comes to adopting technology. Tactics that can support a strategic shift in digital agility may include:

Embracing technology-as-a-service. P&Cs can take time, cost and the staleness factor out of their technology pipelines by engaging with partners who deliver true turnkey solutions. These solutions—which are typically cloud based—eliminate upfront capital costs, relieve P&Cs of ownership burdens and bring new capabilities online with an immediacy that traditional models can't match. These attributes are especially useful for applying leading-edge analytics and AI methods to so-called big data that can vary unpredictably in volume, velocity and format.

Applying Agile/DevOps disciplines across all platforms. Many P&Cs are adopting disciplines such as Agile and DevOps in targeted areas such as mobile and web. Those areas, however, typically depend on core back-end systems for data and business logic. If those systems are not also nimble then the agility of the business will always remain limited. P&Cs must therefore bring Agile and DevOps to all their platforms—including the mainframe—if that's where their core data and business logic reside.

Making good data governance pervasive. Data governance can be an afterthought because it is not perceived as contributing much to the bottom line. But in a world of data-driven innovation, pervasive data governance is actually a critical business enabler. P&Cs, in particular, will always be slow to market if they build their solutions first and then worry about data security and compliance. Building data governance directly into development and testing processes (often referred to as "shift left") eliminates this common late-stage time-to-market bottleneck.

P&Cs that want to compete successfully in the new digital marketplace must up their technology game. Otherwise, they'll be too slow and insufficiently adaptable to maintain the competitive differentiation essential to win share-of-wallet from today's demanding buyers.
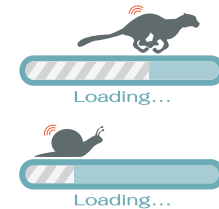
Time-to-market pressures on digital innovators are too intense to accept such protracted processes, so P&Cs need a much more time-compressed approach.

KEY 3:
Transformation of organizational culture

Culture does indeed eat strategy for breakfast. It doesn't matter how intensively you invest in the technological and operational ability to innovate, if you don't develop a business culture that promotes innovation, you'll fail.

Reams have been written about what it takes to transform organizational culture in ways that promote innovative activity—but a few highlights apply especially to P&Cs:

Champion change at the executive level
Exceptional leaders change culture from the top. P&C leaders who want their organizations to innovate must therefore own the necessary transformation—and lead by action and example, though. Executives who keep doing things a certain way because that's how they've always been done should also not be surprised if employees are skeptical about how important innovation really is to corporate leaders.

Support and reward culture catalysts
People don't engage in innovative thinking and action just because someone says they should. They need concrete motivation to do so—just as they do for every other aspect of their jobs. For example, if people need 100% of their time and energy to perform their required daily tasks, then they will spend 0% of their time and energy working on anything that's even remotely forward-looking. To innovate, P&Cs must give people the time and space they need to work on something other than current business. Similarly, if employee performance reviews are based solely on how well they perform their required daily tasks, again, that will be their sole focus. Engagement in innovation-related activities must be intrinsically rewarded if innovation is to become intrinsic to the culture.

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Bring the right catalytic partners on board

Not all change can be brought about from the inside. After all, there's a reason organizations become the way they are—and usually it has a lot to do with the people and their worldviews. Most P&Cs can therefore benefit from engaging with partners who can help to catalyze cultural change. A few attributes can be helpful in making the right choice:

Practitioners over preachers. Many potential partners will claim to be capable of helping you transform your business, but their own businesses aren't demonstrably innovative. It's best to avoid the "shoemaker's children" syndrome and work with those who have successfully put their own principles into practice.

Enough—but not too much—vertical expertise. P&Cs gravitate toward partners with extensive experience in the insurance industry. Partners who spend all their time exclusively in insurance, however, often have a worldview that's too narrow. There's much to be learned from banking, retail, transportation and other markets too.

Execution enablers. Innovation isn't just about ideas. It's about getting those ideas into production quickly, then iteratively modifying execution at speed based on lessons learned. You're better off with a partner who can help you do that than you are with a partner who just makes suggestions without being accountable for results.

Data-centricity. To capitalize on market opportunities to monetize data, it helps to work with a partner who really knows data. Not actuarial science (which P&Cs have aplenty in-house) and not app development (which is quickly becoming a commodity skill)–but deep competency in how data can be collected and processed in new ways that drive quantifiable value to customers.

Fee structure. Engaging for innovation isn't like engaging for a mission-specific project. Outcomes are less determinate, and there's much more need for experimentation. Fee structures that make sense for conventional engagements can therefore become prohibitive in the context of long-term innovation.

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CONCLUSION: **Making monetization happen—now**

Regardless of the specific tactics and partners P&Cs leverage to monetize data, one thing is clear: P&C leaders must initiate their innovation efforts now. Most P&Cs are simply not sufficiently well positioned today for the kind of data-driven innovation required to outgrow the competition in a digital marketplace tomorrow. They must begin moving toward their desired target state sooner, rather than later.

It's also important for P&Cs not to confuse incremental improvements in the way they use data within their existing business models with actual disruptive innovation. It's certainly important to keep improving underwriting, pricing, and customer engagement, and advanced data analytics can help greatly in these areas. But P&Cs must also capitalize on the new opportunities digital affords by generating entirely new revenue streams. And that's not going to happen by simply continuing with business as usual.

Finally, no P&C leader should view data monetization as a destination. Innovation is a continuous process, not a onetime achievement. If you can't continuously innovate, you will lose ground to your competitors as quickly as you gain it—because in a digital world, even your most differentiated solutions can be rapidly replicated by data- and software-savvy competitors. On the other hand, if your organization is itself data- and software-savvy, none of your competitors will be able to stay very far ahead of you for very long.

For these reasons and more, every P&C leader should put data monetization at the top of their to-do list—and get started on it right away.

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