INSURANCE

Big data:

The BIG factor driving competitive advantage

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By now, most insurers understand the potential value that big data could deliver to their organizations. But our experience suggests that few insurers today are ready to take full advantage of the many opportunities that could be captured with greater data insights. Thankfully, there are a number of ways that insurers could start improving their data and analytics capabilities immediately.

To start the transformational journey into the type of data-driven, insight-led organizations seen in other sectors, insurers will need to be bold in their approach. We see several opportunities for insurers to catalyze change including reducing the 'bloat' and sprawl of internal data and infrastructure before starting to add new data into the mix; instituting a data governance model that is flexible across the business; enthusing a culture of experimentation; and creating an enterprise data management function that is empowered to break down internal silos. It will be critical for organizations to look for ways to shake-up their business model and challenge the status quo, while moving towards profitability-based analytics.

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Big data characteristics

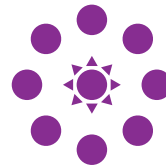| Volume (expanding)	Velocity (increasing)	Variety (widening)	Validity (waning)
x10 The amount of digital information will increase tenfold every 5 years.	**90%** of the world's current data was created in the last 2 years.	**60** seconds creates 98,000 tweets, 695,000 status updates, 11 million instant messages	**30** billion Various pieces of content shared on Facebook each month

Source: Data, Data Everywhere! KPMG in the US, 2014.

A rising wave of data

The fact that data – and more specifically the analytics of data – is creating massive value for organizations is irrefutable. Almost 70 percent of all C-level executives say that data and analytics (D&A) will be important to revenue growth going forward and 55 percent say they have already changed their business strategy to meet the challenges of big data.

Yet while the potential value of D&A may be clear, many organizations – insurers included – continue to struggle to make the most of their D&A capabilities. More than half of all business leaders say they consider it to be difficult or very difficult to make decisions around analyzing data. Almost all executives (96 percent) agree that they could be better utilizing D&A in their organizations.

Part of the challenge, and certainly this is not new news, is that big data is continuously growing, not only in size and scope, but also in complexity. As a result, many insurers now need to explore new forms of data acquisition management and integration in order to wring real insights from their data.

The reality is that today's big data is not tomorrow's big data; what qualifies as 'big data' will necessarily change over time as the tools and techniques to handle it evolve, the storage capacity increases and processing power improves.

Perception	Reality
Big data is only about massive data volume	It is about variety, velocity, validity and volume
Big data is for social media sentiment analysis	Big data is about viewing all types of data sources broadly
Big data is a technology issue	Big data is a business issue
The more data you have, the better the insights	Having the right data is more important than having the most data
Analytics is about software and tools	Analytics is about making better decisions by asking better questions
Analytics is just another business trend	It's a permanent change in the business landscape
Analytics is what data scientists do	It's about enabling your employees across the organization, not just a silo of specialists
Predictive analytics is THE answer	Adoption rates for predictive analytics are still low and there is still much benefit to be gained from the basics

A world of opportunity

Some of the opportunities are fairly easy to recognize. Consider, for example, the insights that could be gained simply by integrating social media data with claims data to identify potentially fraudulent activity (such as pictures of a worker's compensation claimant riding a roller-coaster) or to quickly verify evidence of flood damage through geo-tagged photos on Flickr. Claims could be reduced, liabilities more accurately assessed and risks better monitored.

Think more broadly, however, and the possibilities are almost endless. We recently worked with one insurer to create a 'risk dashboard' that integrates data from more than 40 different social media sources to provide real-time monitoring of a range of risks in key geographies. Shipping clients, for example, can use the tool to keep track of storm activity; mining companies may use the tool to monitor for political or social unrest around their operations; infrastructure providers could use the dashboard to track for service interruptions.

For the insurer, the tool is a potential game-changer. Not only does it provide its customers with the ability to more actively manage and monitor their risks, which, in turn, reduces overall risk for the insurer, it also improves the 'stickiness' of its larger corporate customers who see the service as a significant value-add. Better yet, the insurer can now also use the tool (or sell it on as a service) to proactively warn other customers of potential risks and emerging issues, thereby further reinforcing their overall customer experience.

However, moving beyond a traditional 'process' focus (i.e. how things get done) and towards a more 'informational' focus (in other words, why things get done and in what situations) will not be easy and will require insurers to reconsider their approach to people, process and technology.

Many rivers to cross

While some insurers are clearly starting to turn their data into competitive advantage, the reality is that most insurance executives still see big data as a 'big challenge' rather
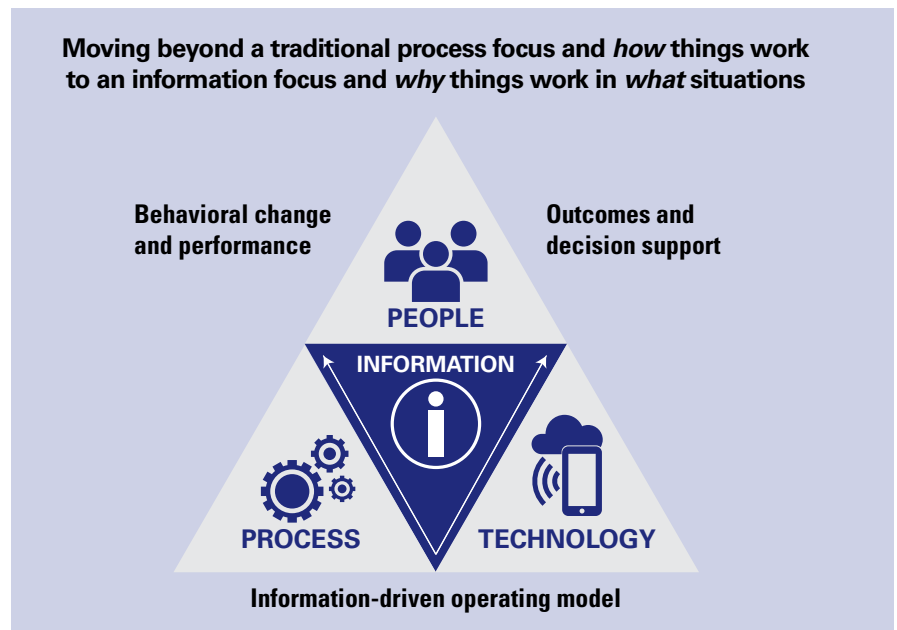
Source: Data, Data Everywhere! KPMG in the US, 2014.

than a 'big opportunity' and – with little competitive pressure to adapt and a long list of other high-priority challenges on the horizon – most have opted to dabble with their data rather than attack it.

This is not entirely surprising; most insurance organizations will need to do quite a bit of heavy-lifting before they can truly start wringing insights from their data.

Likely the greatest challenge facing most insurers revolves around their current data management strategy. Particularly at larger, more complex organizations, data is often trapped in silos, inconsistently labeled or locked behind access controls making it virtually impossible to achieve a 'single view of the truth'. Likewise, data governance and ownership is often spread across the organization, meaning that few insurance organizations have a centralized view of what data they have and how it is being managed and used.

Even those with more mature approaches to data management and analytics are struggling as the business environment shifts. The trend towards the outsourcing of some back-office business processes, for example, has potentially added more complexity as insurers start to come to grips with their data footprint.

Those purchasing data from outside the organization, such as social media data, economic data or demographic data, face further challenges as they grapple with the implications of integrating and analyzing their various data sources. Multinationals will also need to understand how local and regional data privacy regulations may impact their ability to collect, analyze and share data across the enterprise.

Identifying opportunities to catalyze change

Clearly, it will take something of a transformation for insurance organizations to evolve into the type of data-driven, insight-led organizations that are now emerging in other sectors. But our experience suggests that there are a number of actions that insurance organizations could be taking today in order to start laying the groundwork.

- **Clean up what you already have:** Before going out and purchasing reams of new data sets and sources, insurance organizations should start by cleaning up and integrating the data they already have. Ultimately, the objective should be to reduce the 'bloat' and sprawl of internal data and infrastructure before starting to add new data into the mix. That being said, one of the truly valuable characteristics of

big data is that organizations can often start identifying important insights from data sets that aren't technically 'clean', meaning that big data can quickly and easily be overlaid on top of the organizations existing (and clean) data.

- **Develop a data governance model:** With dozens of data warehouses and often blurred lines of data ownership, most insurance organizations will need to focus on creating an enterprise-wide approach to data governance that provides flexibility to the business while also giving consistency in the standards and controls guiding data usage. Those hoping to eventually start leveraging big data and external sources may want to consider developing a 'hybrid' governance model that provides different controls for proprietary information (such as core CDCs) versus external data.

- **Create an enterprise data management function:** While many insurance organizations already have some form of data stewardship function, such as a chief data officer, most are rather single-mindedly focused on creating policies rather than improving information flow and usage. Insurers may want to consider creating an enterprise data management function that can act as a bridge between IT, the business and the data to help ensure that the right information is being used – consistently – across the organization. Ideally, the enterprise data management group would be empowered as the primary source for all data requests that come from the business.

- **Build a culture of experimentation:** Given the level of regulation governing the insurance sector, it is not surprising that most organizations tend towards a more risk-averse corporate culture. What this means, however, is that few employees or business units feel incentivized to innovate. Those seeking to encourage new ideas and approaches will want to consider how they might implement a culture of experimentation that recognizes the fact that some projects will fail and therefore provides employees and business units with the right guidelines – and the flexibility – to safely test out new approaches.

- **Look for the blue sky:** Rather than trying to force your data to tell you things you already know about your business, focus your attention on creating new areas for improvement or value creation. Whether opportunities are found in commercializing your existing data and insights or in leveraging your data to develop entirely new products and services that suit more targeted demographics, insurance organizations should be looking for ways to use their data to shake-up the business model and transform the status quo.

- **Move towards probability-based analytics:** When dealing with big data, the key to driving insights is being able to eliminate the 95 to 99 percent of information that isn't relevant to your needs (i.e. the 'noisy data'). This can't be accomplished through traditional root cause or 'regression' analytics; finding value in big data will require insurers to understand, and embed, probability-based approaches and techniques into their core data and analytics capabilities.

- **Make sure you are asking the right questions:** Getting useful insights from your data all depends on your ability to ask the right questions. But it also means being able to identify which questions you can't currently answer with your existing tools and techniques. However, if insurers invest in identifying the right questions to ask of big data – and then couple the right questions with smart probability-based analytics – insights can start to flow very quickly.

At the end of the day, the biggest technology risk for insurers is that they are left behind in the race to turn data into insights and insights into value. Our experience suggests that it will be those that are able to create the right environment and governance models to support data-driven experimentation and exploration that will win in the more customer-centric insurance model of the future.

Given the pace of change in the market, those who continue to merely 'dabble' with their data may soon find it difficult to catch up. ◼

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James has worked with many of the world's leading corporations, government departments and political leaders to help them understand the opportunities and challenges they face from digital disruption, in particular social media. He has been the recipient of the 'Young Business Person of the Year' award from Australia's largest Chamber of Commerce, the NSW Business Chamber. James joined KPMG Australia as part of its acquisition of SR7.

For more information on how to leverage big data to achieve competitive advantage, visit www.kpmg.com/ transforminginsurance