

## IBM Institute for Business Value



---

### Overview

Innovation is happening everywhere. It is transforming how and what people purchase, and how they communicate and collaborate. There are ever-greater demands on organizations to innovate faster and at scale. In response, data and analytics are being used to motivate radical new business models and disrupt traditional industry structures. How are data and analytics driving new ideas and new innovation, and what can executives do to incorporate data-driven innovation more directly into their strategies and initiatives?

---

## Driving innovation through data

In many ways, demand for innovation has become insatiable.

Innovation is becoming ever more disruptive, and big data and analytics has become intrinsic to the way innovation is happening. Outperforming organizations will be those that make data and analytics central to their innovation processes, as well as to the innovation itself. Data promises to provide the input for creative endeavors and new ideas. But the importance of data and analytics will transcend ideation and inspiration. This powerful pairing will become a central part of innovation itself, including dynamic and potentially highly disruptive new business models.

### Innovation drives value, but technology is the key

Innovation is highly correlated with value creation. But innovation and the value that it can bring do not occur in a vacuum. Technology is key to motivating and driving innovation. Emerging technologies that both generate and use data – such as social, mobile, analytics, cloud, 3D printing, nanotechnology, sensors, wearable and biomedical devices, and 4G, among others – promise to have a massive impact on business economics, organizational structures and processes, as well as individual customer demands and expectations.

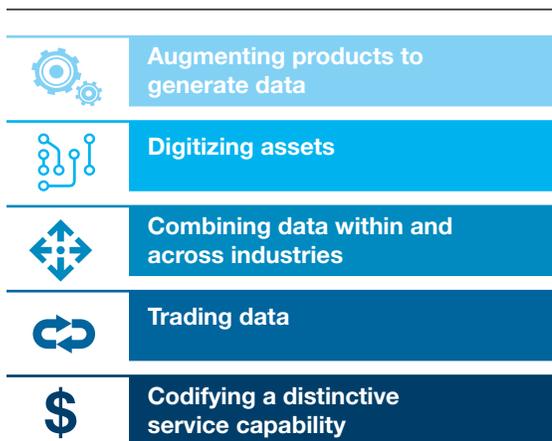


Technology-enabled innovation is becoming less about incremental improvement from the day-to-day “business-as-usual,” but increasingly grounded in radical and unpredictable reinvention. Technological change and adoption are happening faster than ever before. But beyond that, emerging technologies such as cloud and analytics are providing the platform and the connectivity to combine and promote synergies across and between new technologies.<sup>1,2</sup>

Three fundamental drivers are powering a new wave of technology-enabled business innovation: a digital data explosion, better tools to derive insights and more business “in the cloud.”

The centrality of data and analytics to business innovation and value creation is tangible. Data from our C-suite studies confirm clearly that not only are financially outperforming organizations more likely to combine business and technology to innovate, they are also leading adopters of data and analytics.<sup>3</sup> Across the dimensions of data access, drawing meaningful insights from data and being able to translate insight into real actions, outperformers are clearly more capable than underperforming or peer-performing organizations.<sup>4</sup>

We have identified five distinct patterns of data-driven innovation (see Figure 1):<sup>5</sup>



Source: IBM Institute for Business Value and IBM Research analysis.

Figure 1: Five patterns of data-driven innovation.

- **Augmenting products to generate data.** Enhanced products that generate data can lead to: improved product attributes; greater operational efficiency; new business models; and new or deeper customer relationships.
- **Digitizing assets.** The radically disruptive potential of digitized assets can transform traditional supply chains and expand measurement capabilities to pinpoint new value creation opportunities.
- **Combining data within and across industries.** Integrated data can be used to create ecosystem connectivity and enhance collaboration – both are vital to deliver sophisticated and compelling customer experiences.
- **Trading data.** Exchanging data among organizations in the same or adjacent industries can inform new business models, disperse leading practices and lessons learned, generate inspiration and increase convergence between industries.
- **Codifying a distinctive service capability.** Internal data competencies and assets can be redirected and transformed into separate new businesses, particularly when exploited across industry or market contexts such as emerging economic ecosystems.

---

## Key Contacts

Rashik Parmar  
rashik\_parmar@uk.ibm.com

Anthony Marshall  
anthony2@us.ibm.com

---

To read the full version of this IBM Institute for Business Value study, please see [www.ibm.com/services/us/gbs/thoughtleadership/innovation-through-data/](http://www.ibm.com/services/us/gbs/thoughtleadership/innovation-through-data/) or contact us at [iibv@us.ibm.com](mailto:iibv@us.ibm.com). For a full catalog of our research, visit [ibm.com/iibv](http://ibm.com/iibv)

Be among the first to receive the latest insights from the IBM Institute for Business Value. Subscribe to IdeaWatch, our monthly e-newsletter featuring executive reports that offer strategic insights and recommendations based on IBV research: [ibm.com/gbs/ideawatch/subscribe](http://ibm.com/gbs/ideawatch/subscribe)

Access IBM Institute for Business Value executive reports on your tablet by downloading the free “IBM IBV” app for iPad or Android from your app store.

## Start today: Claim a stake in the data-driven future

The starting point for organizations seeking to accelerate innovation is to make sure that they are asking the right questions.<sup>6</sup> To fully capitalize on big data and analytics, organizations will need to transform, and then apply new capabilities to drive innovation.<sup>7</sup> At its most fundamental level, data can drive innovation in two ways. Data can motivate ideation, development, execution and evaluation of new innovations. And it can underpin, or be a central component of new products, services, operations or business models.

New technologies related to data, analytics, cloud and other areas are motivating new and exciting possibilities for new products, new processes and new business models. We are only at the beginning of what promises to be a very different environment for both customers and organizations.

By tapping into the power of big data and analytics, organizations can position themselves closer to the center of the radical changes ahead. And through this ongoing commitment, business leaders and individuals can make both their organizations and themselves essential – rather than marginal – to what promises to be a dynamically orchestrated, symbiotic, contextual and cognitive omni-connected economy.

---

## *How can IBM help?*

### ***Tapping data and analytics to innovate faster and at scale***

To succeed in today’s environment, businesses need to lead through increased complexity and volatility, drive operational excellence and enable collaboration across enterprise functions, develop higher quality leadership and talent, manage amidst constant change and unlock new possibilities grounded in data. The IBM Strategy and Analytics practice integrates management consulting expertise with the science of analytics to enable leading organizations to succeed.

---



## References

- 1 Berman, Saul, Lynn Kesterson-Townes, Anthony Marshall and Rohini Srivathsa. "The Power of Cloud: Driving business model innovation." IBM Institute for Business Value. February 2012. <http://www-935.ibm.com/services/us/gbs/thoughtleadership/ibv-power-of-cloud.html>
- 2 Balboni, Fred, Glenn Finch, Cathy Rodenbeck Reese and Rebecca Shockley. "Analytics: A blueprint for value: Converting big data and analytics insights into results" IBM Institute for Business Value. October 2013. <http://www-935.ibm.com/services/us/gbs/thoughtleadership/ninelevers/>
- 3 Marshall, Anthony, Mieke de Rooij and Mauro Biscotti. "Insatiable Innovation: From sporadic to systemic." IBM Institute for Business Value. June 2013. <http://www-935.ibm.com/services/us/gbs/thoughtleadership/insatiableinnovation/>
- 4 "Leading through connections: Insights from the IBM Global CEO Study." IBM Institute for Business Value. May 2012. <http://www-935.ibm.com/services/us/en/c-suite/ceostudy2012/>
- 5 Parmar, Rashik, Ian Mackenzie, David Cohn and David Gann. "The new Patterns of Innovation: How to use data to drive growth." Harvard Business Review. January-February 2014. <http://hbr.org/2014/01/the-new-patterns-of-innovation/ar/1>
- 6 Ibid.
- 7 Balboni, Fred, Glenn Finch, Cathy Rodenbeck Reese and Rebecca Shockley. "Analytics: A blueprint for value - Converting big data and analytics insights into results." IBM Institute for Business Value. October 2013. <http://www-935.ibm.com/services/us/gbs/thoughtleadership/ninelevers/>

© Copyright IBM Corporation 2014

IBM Global Services  
Route 100  
Somers, NY 10589  
U.S.A.

Produced in the United States of America  
April 2014  
All Rights Reserved

IBM, the IBM logo and [ibm.com](http://ibm.com) are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol (® or ™), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at "Copyright and trademark information" at [ibm.com/legal/copytrade.shtml](http://ibm.com/legal/copytrade.shtml)

Other company, product and service names may be trademarks or service marks of others.

References in this publication to IBM products and services do not imply that IBM intends to make them available in all countries in which IBM operates.

This report is intended for general guidance only. It is not intended to be a substitute for detailed research or the exercise of professional judgment. IBM shall not be responsible for any loss whatsoever sustained by any organization or person who relies on this publication.

The data used in this report may be derived from third-party sources and IBM does not independently verify, validate or audit such data. The results from the use of such data are provided on an "as is" basis and IBM makes no representations or warranties, express or implied..



Please Recycle