



A CGI CONSULTING SERVICE

Big Data Analytics in Retail and Consumer Services

Data2Diamonds – Turning Information Into a Competitive Asset

Introduction

This paper provides you with insights into our vision, approach and consulting service offerings in big data analytics in the retail and consumer services industry. Industry research and experience from CGI's customer engagements show an ever increasing need to leverage all available information to improve business results.

In today's business world, information management, business intelligence and analytics have become critical to compete and thrive. Well-implemented information management, business intelligence and analytics solutions deliver competitive advantage to any organization in any industry.

CGI strongly believes big data is a game changer, but will not replace the existing data warehouse and business intelligence concepts and capabilities. Big data provides us with the opportunity to open up the average one-size-fits-all enterprise data warehouse architecture to become more cost effective as well as more aligned with business value.

This paper demonstrates the potential business value and key challenges to overcome, illustrated with best practices from CGI client engagements in retail and consumer packaged goods. It will define the core capabilities needed to succeed in big data analytics initiatives.

We have formalized our best practices in consulting services, projects and managed services for big data analytics in the CGI Data2Diamonds¹ framework, which is applied every day by a vibrant worldwide community of professionals in their eco-system of clients and partners.

As part of our big data analytics consulting services, we have defined a couple of standardized offerings, described in this paper, to validate your ambition with big data analytics and to secure your business case for big data.

(1) Data2Diamonds is a registered trademark of CGI Group Inc. or its related companies.

Addressing key challenges

HARNESSING MULTI-CHANNEL DATA

Actionable data continues to be generated at an ever-increasing rate from new technologies such as social media and mobile devices, and retail companies need to harness this data in order to provide an improved customer experience. At the same time, the ability to use purchase and inventory data to optimize the supply chain and manage sale prices, continually raises the competitive bar.

Key challenges in big data and analytics in retail include:

- Understanding customers by establishing a single view across multiple sources of customer information (point-of-sale, loyalty program, social media, etc.)
- Improving the accuracy of product data to support cross-channel merchandising programs, discount pricing models and operations management
- Enhancing the reliability of vendor information to support pricing negotiations, contract renewals, score carding and profitability analysis

MOVING TOWARD A CUSTOMER-CENTERED MODEL

Retail and consumer services companies now have the opportunity to make more use of customer based micro-segmentation. The major opportunity is to be able to collect the important data sources, link them together, and use the resulting insights to improve customer experience.

Better use of data is a competitive and differentiating factor in the sector. The goals are:

- Providing a seamless customer experience: This will continue to be the focal point within the industry—companies who are successful in this area are revolutionizing retail, while driving growth, customer loyalty and retention.
- Meeting rising customer expectations for new products, services, channels and delivery models, since people today want to shop anytime and anywhere.
- Understanding the right combinations of new and old channels, to maximize sales and customer retention, while operating efficiently.

This is an exciting time to be in retailing and consumer services, full of opportunity. At CGI, we recognize that the fast pace of change in the industry calls for nimble responsiveness as well as bold innovation, both of which are increasingly driven by insights gained from data.

MATURING BI AND ANALYTICS

In today's business dynamics, as retailer and consumer services organizations face these new challenges, the demand for automated decision-making, based on reliable predictive analytics is growing rapidly. Retailers have been leaders in the use of predictive analytics for decades, but the stakes are continually being raised. Better quality of data to predict future customer behavior, and continued investment in master data management and analytics, are key areas to evolve.

CGI's client interviews and feedback reveal the following trends among the top big data and analytics related challenges for retail and consumer packaged goods:

- A seamless customer experience will continue to be the focal point within the industry.
- Omni-channel continues to expand, allowing customers to shop "anytime and anywhere."
- Customer expectations for new products, services, channels and delivery models will continue to rise.
- Actionable data insight continues to be rated highly and will become a competitive/differentiating factor in the industry.

Leveraging big data analytics opportunities

Across retail and consumer services as well as other industries, several trends have fuelled growth in data generation and will continue to propel the rapidly expanding pools of data. These trends include growth in traditional transactional databases, continued expansion of multimedia content, increasing popularity of social media and proliferation of applications of sensors in the Internet of Things.

As data becomes an increasingly valuable asset, shortening the lag time between generation and insight will be critical for companies to compete effectively. The use of data will become a key basis of competition across sectors, so it is imperative that organizational leaders begin to incorporate data management into their business plans—both from a cost-control viewpoint and a business-value viewpoint.

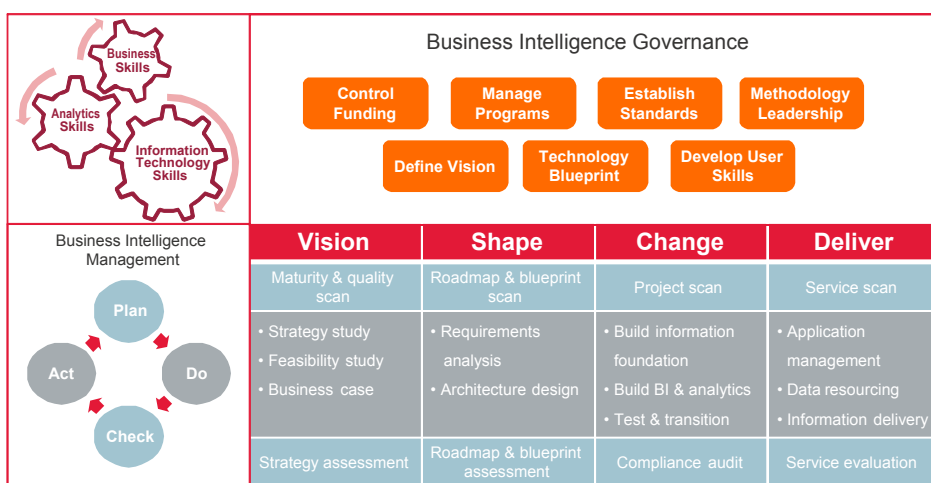


Figure 1: The CGI Data2Diamonds framework

- **DATA IS BIG:** Requiring automated predictive big data analytics.
- **DATA IS HETEROGENEOUS:** Requiring methods for integrating heterogeneous and parceled data sources.
- **DATA IS HARD TO UNDERSTAND:** Requiring visualization and summarization to support informed decision-making.
- **DATA NEEDS TO BE ACCESSED:** Requiring context-sensitive, online, open and role-based personalized information.
- **DATA IS NOISY:** Requiring anomaly detection, filtering, pruning, cleansing and enriched data.

CGI designed Data2Diamonds to enable clients to leverage the power of big data and to deal effectively with the challenges it brings. CGI treats enterprise data and analytics as parts of a lifecycle mode, implemented by a continuous business improvement program.

Data2Diamonds provides a comprehensive inventory of the activities, models and products needed in the full business intelligence lifecycle. This inventory is based on well-established principles in the ICT architecture arena and supports structured and consistent delivery of business intelligence (BI). Standardized “scans” identify bottlenecks and opportunities, and allow planning for next steps. Standard reviews secure the projected value.

The cornerstones in our Data2Diamonds approach to big data analytics are:

- Financially sound: Securing a clear business case before starting significant investments, leveraging agile big data discovery
- Technically viable: Leveraging big data technologies to gain more insights whilst safeguarding past investments
- Socially responsible: Ensuring the level of data collection and usage is acceptable in your eco-system, securing and building trust

Adopters of these technologies and methods tend to create better business results than their industry peers. In doing so, they are able to transition from looking backwards to looking forwards, leveraging the power of big data analytics.

Experience the benefits

As part of our Data2Diamonds portfolio, we recommend taking the following initial steps in your move toward experiencing the full benefits of big data analytics.

VALIDATING YOUR BIG DATA ANALYTICS AMBITION

Our “Data2Diamonds – Quick Scan” provides a shared understanding of your business intelligence and analytics maturity and quality, and enables you to discover opportunities to improve business agility and the total cost of ownership of business intelligence and analytics. Lowering the cost of your current business intelligence landscape provides you with the opportunity to focus investments in big data analytics. The second step in this quick scan is identifying the opportunities to improve, aligned with the maturity of your business intelligence and analytics landscape, guided by our standard improvement roadmap. With this scan, CGI provides customers with the following benefits:

- Shared and objective understanding of current maturity and quality of business intelligence
- The foundation to design, validate or improve a customer’s roadmap, ensuring feasible ambitions and preventing expensive mistakes
- The reference framework for measuring future performance of business intelligence initiatives

SECURING YOUR BUSINESS CASE FOR BIG DATA

Our “Data2Diamonds – Big Data Proof of Value” gives you very rapid insight into the value of a big data use case for your organization. Using your own data, we test the use case of your choice in our big data lab. Within four to six weeks, we realize your solution using your own data and provide an initial proof-point demonstrating whether the use case will provide the expected value. It shows you whether your data supports the desired use case, and if data quality is sufficient to answer your question and deliver the desired value. The results enable you to make a high-level business case or underpin your current business case with clear evidence. It lets you benefit from all the advantages of a fully-equipped big data infrastructure and expert staff before making further investments.

We welcome the opportunity to help your organization transform data into a competitive asset. For more information, visit www.cgi.com or email us at info@cgi.com.

Why CGI?

- Able to optimize client proximity and cost efficiency with combined local and global delivery capabilities
- Thorough technical understanding and experience in complex business intelligence, advanced analytics and data warehouse initiatives for big data
- Practical focus—successful implementation and demonstrable value, understanding the “realpolitik” of business intelligence and information management
- The depth to consult, build and run significant business intelligence–information management initiatives
- Proven success in applying the CGI Data2Diamonds framework methodology within the CGI Management Foundation
- An international community with deep expertise, led by an interdisciplinary practice council

Founded in 1976, CGI is one of the largest IT and business process services providers in the world. We combine innovative services and solutions with a disciplined delivery approach that has resulted in an industry-leading track record of delivering 95% of projects on time and within budget. Our global reach, combined with our proximity model of serving clients from 400 local offices worldwide, provides the scale and immediacy required to rapidly respond to client needs. Our business consulting, systems integration and managed services help clients leverage current investments while adopting technology and business strategies that achieve top and bottom line results. As a demonstration of our commitment, our client satisfaction score consistently measures 9 out of 10. Visit cgi.com for more information.