Strategic Data Quality is Everybody's Business

Anthony J. Algmin, Managing Consultant

JANUARY 2015

RGP™

Consulting. From the inside out.
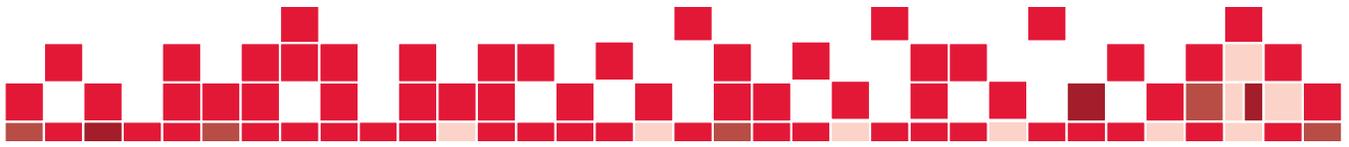
EXECUTIVE SUMMARY

Organizations are rightfully concerned about the quality of their data and the ability to create business value by performing data analytics. This white paper explores why businesses need to deliberately build their data capabilities to remain competitive and explains commonly held misconceptions about data quality. We introduce *Strategic Data Quality*, a powerful concept to help organizations build transformational data capabilities.

THE IMPORTANCE OF DATA

The Technology Explosion

In less than a decade, the world has undergone an incredible technological transformation in both business and personal settings. The original iPhone was released in 2007. People now carry computing power in their pockets that's at least as powerful as that of their desktop computers just a few years ago.

This is an inflection point that has never happened before: An individual now wields more powerful technology tools at home than in the workplace.

But what is the impact of this? If an organization supports its business with uncompetitive technologies, what keeps the competition, individuals even, from applying better technologies to create more value for customers? The barriers to entry for many businesses have become so low that the nimbleness of small enterprises outweighs the deep pockets of large companies. It isn't clear exactly what will happen, but this situation cannot last.

If an organization's scale is getting in the way more than adding benefit, then that organization will ultimately shrink, if not disappear entirely. The only option an organization has to combat this is to find ways to make its collective community greater than the sum of its individual employees.

Part of this comes from investing in technologies that promote efficiency over controls. Obviously, an organization needs to protect certain data, but it is a balancing act. Make the data that should be accessed freely easily accessible. If a company has tools that make things harder than they need to be, the company is hurting itself. Chances are, employees are already trying to work around the inefficiencies however they can.

Businesses are only as strong as their people, and those people need data to do what they do best. The cost of bad data is significant. Inaccurate reporting and poor data governance resulted in 6.2% revenue loss for non-U.S. companies and 7.3% revenue loss for U.S. companies.[1]

In the end, data is central to everything that every business does. When the underlying data quality is poor, how high can the overall quality of the business be?

1. Russom, Philip, "Taking Data Quality to the Enterprise Through Data Governance," www.tdwi.org (March 2006); Ward, Jane, "U.S. Business Losing Revenue Through Poorly Managed Customer Data," www.qas.com/impact (26 March 2006); Enterprise Architecture Executive Counsel research.

The Data Tsunami

Every single business is dealing with more data than they did ten years ago…in most cases, it is an exponential increase. Businesses have generally done a poor job of capitalizing on this data tsunami. Many organizations have been focused on firefighting and keeping the lights on through cost cutting in the tough recessionary years instead of strategically driving business value from their data. Consider below the fortunes of three organizations – LinkedIn, Amazon and Uber – that emphasized and leveraged data as a key business and strategic priority.

LinkedIn
- Impact on recruiting is significant
- Create targeted opportunities through data on people's connections
- Align networking with job search in a streamlined fashion

Amazon
- Make customer recommendations by correlating vast amounts of data
- Enable comparison shopping by taking pictures of physical objects
- Keep prices low with distribution efficiencies

Uber
- Revolutionize taxi industry
- Takes data on location, relays to a taxi driver then handles billing automatically

Industries and businesses that were seemingly immune to change have been transformed. Data and technology have the potential to change businesses in incredible ways, and the future will be full of data-driven innovation that we cannot predict today.

One thing is certain: every business will need strong data capabilities. The real question is whether your business will be among them.

UNDERSTANDING STRATEGIC DATA QUALITY

What is Data Quality?

Before addressing strategic data quality, it is first essential to clarify what the term data quality means. No precise definition exists for something as seemingly intuitive as data quality. For the purposes of this white paper, we'll define data quality as the ability of accessible information to improve business activities and decision-making.

This includes both defined (i.e., operational) and ad hoc (i.e., strategic) business activities and decision-making. To promote simplicity, consider data quality synony-

mous with information quality – any difference between the two has little practical business implication.

Data quality is a range, not a target. It is essential that data quality be measured along a spectrum, and not classified as only good or bad. The phrase *perfect data quality* would be a target on the far end of the data quality spectrum.

> Data quality is a range, not a target.

A related term, data quality management, is a specific technical discipline concerned with algorithmically measuring and correcting data sets and is out of scope for this paper. For detailed information on data quality management or other data management disciplines, the Data Management Association (DAMA.org) publishes an excellent reference guide to the Data Management Body of Knowledge (DAMA-DMBOK).

Introducing Strategic Data Quality

Many organizations believe that the higher the data quality, the better. That is true. Any time you have data, the more accurate and reliable it is, the more accurate your dependent business activities and decisions will be. It is then logical that many organizations strive for perfection in all data matters in order to drive best possible decision-making process.

So a simple question is: how many organizations have perfect data?

No organization has perfect data. Even if all of the data an organization has was perfectly captured and stored, there is always another layer of detail that could exist. Striving for data perfection is a fool's errand; even if perfect data were attainable, it would be prohibitively expensive (see figure 1).

This is because data is always an approximation.

Figure 1. Strategic Data Quality
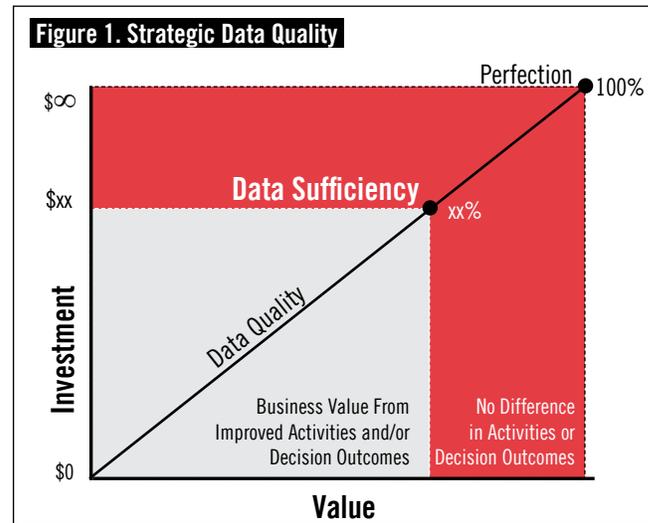
Take music MP3s, for example. They may not be a perfect representation of what happened in the recording studio, but they still sound pretty good in the car on the drive to work. Just like an MP3 balancing file size and quality, the key to all kinds of data is to

understand the trade-offs between improving quality and the cost of doing so.

This is the point of data sufficiency: allocating available resources until the data is good enough for the goal; any additional resources should be allocated elsewhere.

THE ROI OF DATA QUALITY

An ideal precision level is difficult to achieve in most circumstances. However, the goal is the same: invest in improving data quality as long as the business value of that improvement is expected to be greater than the investment.

If available resources are not sufficient to execute on that, then it is wise to determine which possibilities drive the most improvement for the least investment. This is what organizations have been doing for as long as they have existed. Yet, for some reason, few have learned to do this with their data. A 2013 survey of Big Data executives identified that "the great majority of Big Data projects are not being justified with rigorous ROI analyses."[2] If most big data projects are not getting vetted through expected ROI, how are our smaller data projects faring?

Even if the calculations are estimates, the results will be better than trying for an impossible perfection without any calibration to expected business value. Data sufficiency provides the foundation of strategic data quality: Strategic data quality is deliberately choosing data quality targets and corresponding investments to maximize the business value created from accessible information.

Businesses evolve over time with infrastructure that often does not grow in step with the rest of the organization. The result is a company that struggles to execute its business efficiently, often hampered by the inability of its technology and data to support its growth objectives. The business and supporting technology become at odds with one another, and organizational agility and expansion are stymied.

Strategic data quality is about looking forward with full awareness of the trade-offs, setting sail in the right direction, and not about passing judgment on yesterday's decisions.

2. http://newvantage.com/wp-content/uploads/2013/11/Big-Data-Survey-2013-Summary-Report-090913.pdf

Companies now realize that high-quality data is an important driver for business responsiveness and overall success. It's about picking your battles, and realizing that every piece of data has some value, but not all of it necessarily needs to be further refined. By adopting strategic data quality, organizations can truly take ownership of data's relationship to their business.

> Start small, deliver value quickly, and build momentum.

need an equivalent of a map, a known starting point, and a hoped for future state goal. How you complete that puzzle and determine the right turns to take will be unique to each situation. Start with the smallest task that would provide meaningful value. Do that, and then go from there.

Whatever you choose to do: start small, deliver value quickly, and build momentum. The only way you'll get to amazing is by first starting with something seemingly small, or sub-optimal.

GETTING STARTED WITH STRATEGIC DATA QUALITY

Understand Your Starting Point

Consider an incredible technological innovation: GPS navigation systems. They have a huge database full of information but need two key pieces of data before delivering useful instructions: where you are and where you want to go.

When it comes to where you are and where you want to go with your organization's data, do you currently have the GPS system or just an old-fashioned map? Do you even have a map?

Regardless of the severity of your challenges, you will

If this sounds great in theory, but you'll never get it to work at your company, then get some help. This whole data universe is difficult and the skill sets are rare and tough to build. Most organizations don't know how to make these changes. How would they, if data has not been a top priority before now? People (and companies) learn from experience, and the people in your company may not have had enough opportunities to sufficiently guide the way.

These are not challenges to stumble through and hope to get right. We expect the little GPS device in our car to know how to use data to give us the right directions to get home. Shouldn't we demand at least that much when it comes to data driving the success of our businesses?

Our Recommendations for Establishing a New Approach with Strategic Data Quality

The most fundamental organizational change is to help folks realize that there is no *them* inside your company. Everybody in the organization needs to be on the same team. If we want data to flow freely between organizational silos, some walls between business units need to come down. One organization, one team. Getting people working together is the first step in getting your data working better.

From our experiences working with clients on data initiatives, we have seen successful results from the following action steps.

1. To start making a positive change, first enlist the people who get it. Find the people who see the problems with the data, and want it to get better. Enlist the people who can't get the information they need to help their customers; the people who will roll up their sleeves, get to the bottom of the problem and let nothing get in their way for long.

2. Give this group of people a simple mandate to improve the business impact of data, some nominal resources, and then see what they can do. If they can show that the value exceeds the effort

> Stop infighting between the business and IT.

by a reasonable amount, scale it up a little more. Invite a few more people, and allocate some more resources, and see if the momentum can build. Keep evaluating whether people are promoting change through strategic data quality, getting too comfortable, or losing focus.

3. Stop infighting between the business and IT. Data is owned by the business and curated by IT – dysfunction in the relationship between those groups of people will only lead to worse data. Remember, there is no *them*. Data will reflect the divisions in an organization.

4. Integrate change management discipline to ensure an accelerated change journey to your desired future state while balancing overall costs. The success of strategic data quality is more of a function of collaboration and communication than powerful technology. If you can align the people in your business to the company's Strategic Data Quality goals, gain agreement on how to move forward, and get everybody on board with a shared vision of the future then you have won. All that's left is selecting some tools and doing the work. That's the easy part.

5. If you can, avoid buying a tool as a shortcut to excellence. Tools often can make the good better, but

they can also make the bad worse. Tools amplify their inputs. It is crucially important to get those inputs right or all you'll end up with is a bigger, louder, data problem.

For example, if you purchase and install an expensive application to accelerate end-use access to your critical data, but you haven't fixed underlying data problems, is that really a good investment? Simplified access to broken data is not strategic data quality; it's the opposite.

6. Develop the best process and business alignment you can. Draw those maps. Gain agreement on where you are and where you need to go. Think carefully about the route you want to take to get there. And then start walking in the right direction.

   Get some value from those early steps, then think about walking a little faster and beginning to leverage some technology amplifiers to get more out of your well-conceived efforts. Before you know it, you are building momentum in a sustainable way.

7. As your journey continues, earn the tools you buy. Just like a beginner who chooses to make a small investment in the basic equipment until they know enough about their game to buy the fancy stuff, your organization should do the same with its strategic data quality program. Start slowly and build momentum.

If you go too fast, your foundation won't be strong enough to support what you'll need to do with your data down the road. That said, don't be too slow about it either.

> Successful strategic data quality depends more on collaboration and communication than powerful technology.

The world is moving ever-faster, and building better data capabilities will enhance anything your business wants to do. This is an endeavor worth investing in and pursuing aggressively. We are at a critical juncture, and the businesses that recognize it and seize the opportunity will be successful. For organizations choosing not to adopt strategic data quality – who knows what will happen?

One thing is for certain: we'll all see soon enough, probably on our phones.
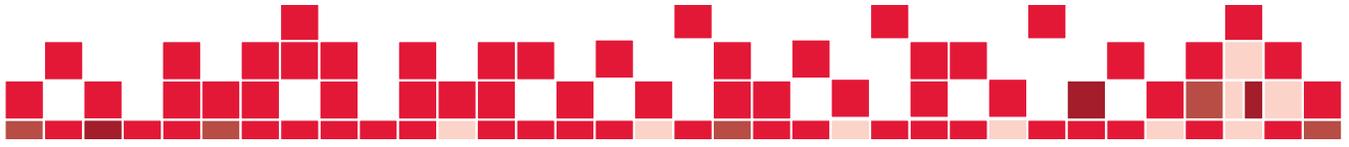
ABOUT RGP

The world's leading businesses trust Resources Global Professionals (RGP) with their most pressing initiatives. Our Integrated Data Governance service offering ranges from strategy and advisory to implementation solutions that help support clients' efforts, at any stage of their initiatives. In today's world of ever-growing data complexities, ranging from new regulatory requirements to cyber security to utilizing data more efficiently for business growth, RGP has a proven track record of helping clients break down complex issues to create sustainable outcomes and results.

RGP was founded in 1996 within a Big Four accounting firm. Today, we are a publicly traded company with 3,300 professionals, annually serving over 1,800 clients around the world from 70+ practice offices. Headquartered in Irvine, California, RGP has served 87 of the Fortune 100 companies. www.rgp.com

ABOUT THE AUTHOR

Anthony J. Algmin is a Managing Consultant for RGP and a data strategy and management subject matter expert with experience across many industries. He frequently speaks at national and local events, and contributes thought leadership to the Data Governance and broader Data Management communities. Anthony has a Bachelor of Arts in Business Administration from Illinois Wesleyan University and a Masters of Business Administration from the J.L. Kellogg School of Management at Northwestern University.

His innovative approach to data-driven strategy helps organizations make the most of their people, processes, and technology. At a time when so many companies struggle to establish sustainable data analytics and governance capabilities, Anthony's approach has proven that the key to success is not just sophisticated technology, but great business leadership.

Anthony's varied industry experience provides him with a unique perspective of the challenges organizations face when trying to gain a data advantage. In addition to having deep expertise in capital markets—including asset management, broker/dealer, and proprietary trading environments—he also has worked extensively with banking, insurance, healthcare, government agencies, and energy and utilities organizations.

Contact him at Anthony.Algmin@rgp.com, 630.353.4197 or www.linkedin.com/in/anthonyjalgmin/.

RGP™

Consulting. From the inside out.