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Eliminating BI Failure:
4 Steps to Avoid Improper Data Governance



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Over 100,000 users
in 94 countries

Accurate data is the non-negotiable cornerstone of any business intelligence effort.

How could you possibly build a data warehouse and cubes on data that might not be accurate? You shouldn't of course, and that's the point. Accurate data is the non-negotiable cornerstone of any BI effort.

But accurate data does not happen by itself. Data needs to be enthusiastically governed to a state of truth and reliability, and this is a big job. So big in fact, that attempting a global data governance initiative can cost so much time and energy as to obliterate the initiatives it was designed to support in the first place.

If your company has an urgent need to manage three or four KPI's around inventory, the six months that it might take to understand your inventory data and make sure it is correct is a very long time.

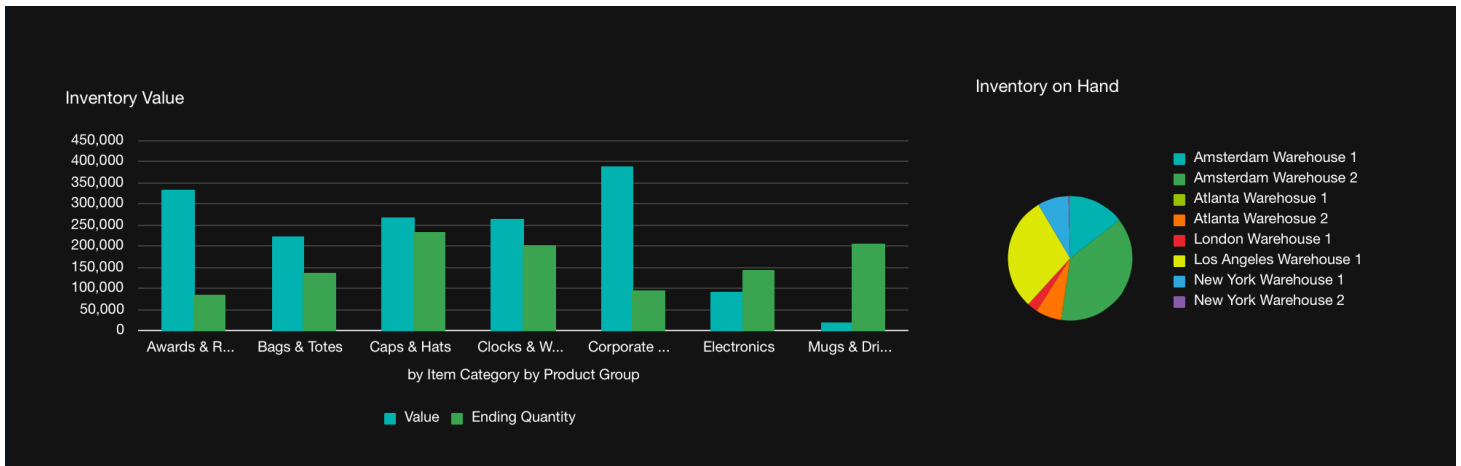
But there is an even bigger risk. Think about how you find out that you have bad data. It's almost never by putting data into a system. You only find out about bad data when you try to get data out. So this begs the question – if you are going to embark on a data governance and cleaning initiative before you roll out BI, what exactly are you going to govern? How do you know what to fix, if you can't see that it is broken?

Nothing highlights inconsistencies in your data like trying to build a dashboard against it. Nothing will focus data governance efforts like clearly understanding the numbers

you need to drive your business. Not just the numbers themselves, but what are the components of those numbers? What were the transactions that placed those numbers into the system? What are the processes around those transactions? Are they contributing to accuracy, or is there something buried in there that is making the numbers inaccurate?

There is magic in seeing those imperfect numbers appear in an analysis because now you have a clue about what data, or process, is broken. BI will give you an effective data governance roadmap, with the starting point in the form of numbers that your subject matter experts and other stakeholders will recognize as wrong. It is the BI environment itself that makes your numbers accessible. And with that accessibility, data quality issues become glaring, and the root causes behind them become easier to trace.

This white paper is going to discuss some specifics around that concept, but first it is going to give some practical advice around data governance itself.



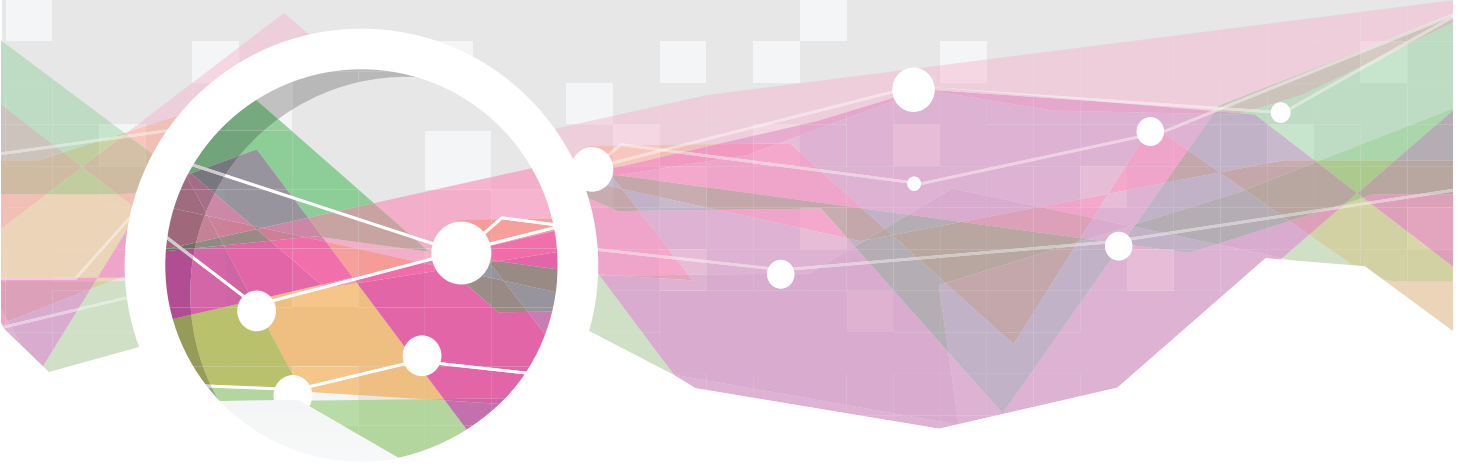
What is Data Governance?

Data governance is a discipline that embodies a convergence of data quality, data management, data policies, business process management and risk management, all in the context of a company's information records.

The stripped-down, quantitative definition is that data governance is simply a set of processes which ensure important data assets are managed properly throughout the enterprise. Qualitatively, it ensures that data can be trusted and that people are accountable for anything bad that happens because of low data quality. Note the important words: 'people' and 'process' – it's about putting individuals in charge of creating processes that prevent data issues, and fixing them when they inevitably occur.

Through data governance, organizations are really looking to answer the deeper systemic questions about people, process and methodology. With those answers, they put themselves in a position to exercise positive control over the processes and methods they use to handle their data.

Altering the company's way of thinking and setting up new procedures to handle information is not something that happens quickly. The current methods and habits that you use in your business took years to develop, so the changes you are asking for will demand an evolutionary course. Data governance is most effective when it is treated as an ongoing program with a continuous improvement cycle. It rarely works when attempted as an 'all at once / one-time initiative.'



Working backward from a suspicious result surfaced by your AR dashboard will make the business case jump out

So, how do I become the Governor?

One of the biggest mistakes we see is jumping in too soon without clearly defining what the company wants to accomplish. It's hard to measure effectiveness without first outlining the business case and determining where and why to apply data quality efforts.

The most direct way to identify data quality problems is to tackle them from the perspective of specific business issues rather than general purpose Data Governance. Specific issues commonly surface in the context of business processes – a business process being defined as any activity that spins off metrics. Managing Accounts Receivable, for example, will give you past due amounts, days outstanding, client payment history, etc. Working backwards from a suspicious result surfaced by your AR dashboard will make the business case jump out and will lead you directly to the underlying issues in your AR process.

The advice below is best read in a 'think globally, act locally' context. Rather than applying these steps to the entire data set, look for one defined problem, understand the specific areas that need to be addressed and then put the most pressure on those steps where a clear result can be visualized.



4 Steps to implementing Data Governance

#1 Identify and Establish the Vision

There is no point in trying to align your people, process and policies unless you know what you are trying to accomplish. Any vision statement should tie to a foundation of 'what we do here' and 'how we do it.' Visions should be clear and specific. Applying the vision of *'Being the easiest office supply company to buy from by offering one step ordering with 100% on-time delivery and prices within 5% of the competition,'* produces some targeted goals for customer facing processes:

Increase customer satisfaction and encourage repeat business by streamlining the order process

- ▶ Electronic order form that is sent at client order cycle times
- ▶ Collect enough information, but not more than necessary

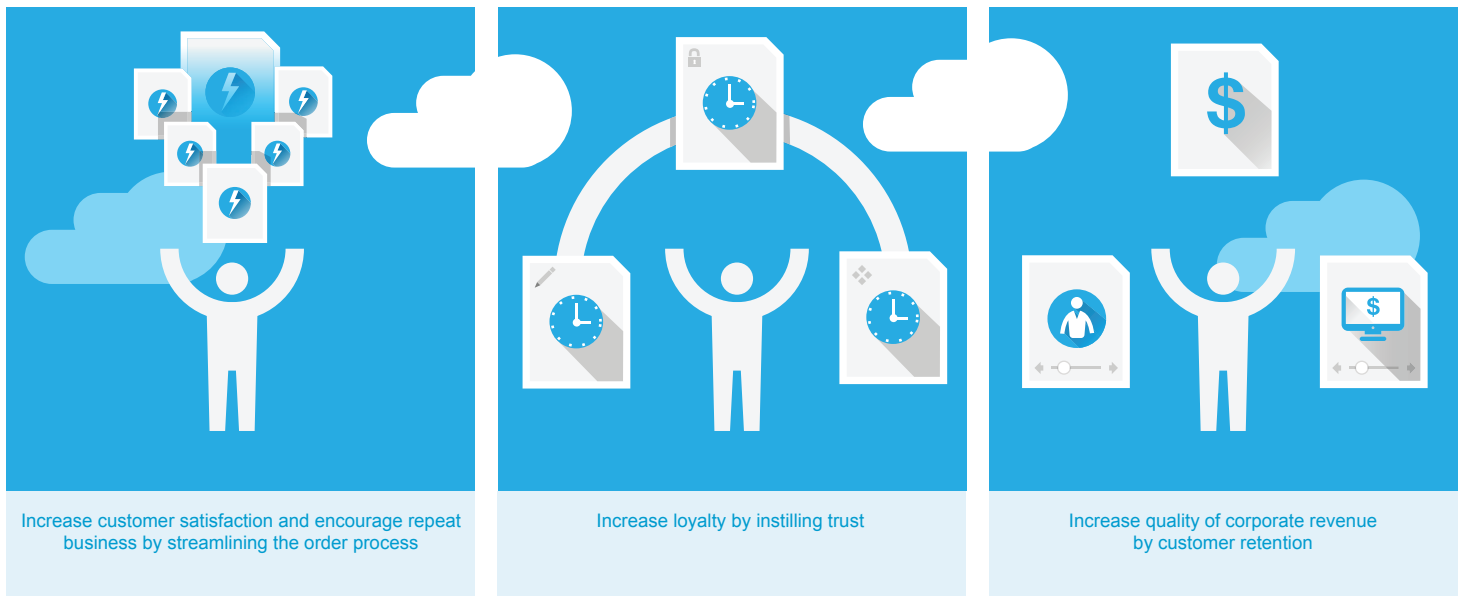
Increase loyalty by instilling trust

- ▶ Collect, record and maintain preferred delivery times and method from the client
- ▶ Ensure delivery information is delivered to the responsible person with fail safe back up process

Increase Revenue Quality¹ by customer retention

- ▶ Collect and monitor competitor pricing
- ▶ Create a process for adjusting prices based on competitor data

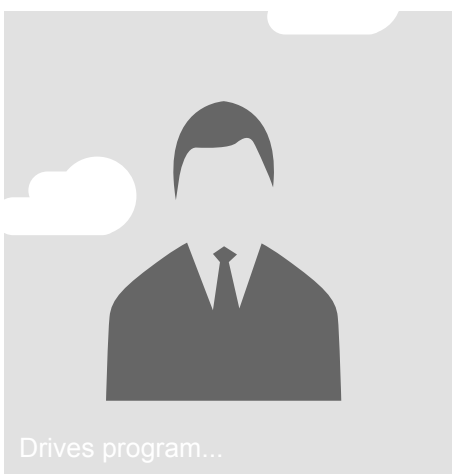
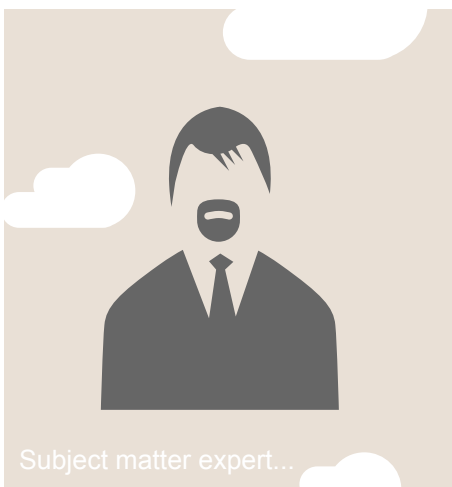
¹High quality revenue has 3 main characteristics: predictability, profitability and diversity. See this link for more info: [Revenue Quality explained](#)



In these examples, the data is not really doing the work. It's what is happening around the data that is making the difference – the data is a means to an end. But now that the vision is put in terms of specific goals, the data is working for you. If you have goals, you can derive metrics to measure them. The data that you need for these metrics will become evident, as will the processes needed to collect this data.

Vision drives data governance. For example, our office supply company will want to monitor their on-time delivery rate. The quickest, most accurate way of doing this is using a BI solution to aggregate the relevant data from where it currently resides, attempt to display it in the way you need to see it, and identify what might be missing. Any gaps or inconsistencies in the foundation are quickly recognized. For example, customers requesting custom delivery dates outside of the typical shipping time frame are currently getting calculated as 'late' – skewing the on-time delivery rate. That can be fixed by a process tweak and by adding a field in the order form.

You are actually seeing data issues in the form of the end result of your data collection efforts. This ensures you aren't left wondering whether the governance changes you make to support the vision will create accurate results in the end.



#2 Appoint Your House of Representatives

Essentially, Data Governance is all about getting your house in order. Making sure that the way you handle, store and process data is legal, efficient and right for your business. Quite often, individuals with no background or specialty in data are tasked with the job of managing or processing it. Data governance is a way of making sure that, despite this, you get the most out of your data assets.

Here are the major roles needed to get data quality embedded in the organization:

Executive Sponsor – best case is to get one that is as senior as possible, with as much authority as possible. That needs to be balanced with enthusiasm and the capacity to do the work. It won't help if your executive is passionate about the subject, but too busy to do anything about it or vice versa. Most important is that the Executive Sponsor has a solid vision of how trusted, secure data will improve the business.

Data Stewards – Your stewards are your business and IT subject matter experts who can most effectively translate how your data influences the business processes, the decisions and the interactions most relevant to the organization. Your business stewards must be IT-savvy and your IT stewards must be business-savvy. Both must be strong communicators and facilitators across the part of the organization they represent. Think of them as part subject matter expert and part project manager.

Data Governance Driver – Proper data governance is a business process in itself and someone needs to be there to keep it moving and keep it on track. The Data Governance Driver coordinates tasks for data stewards, communicates all decisions made by stewards to relevant stakeholders, and drives ongoing data auditing and metrics to assess program success.

The easiest way to identify these roles, and avoid arbitrarily guessing who should be appointed, is by tracing the data backward. You have defined metrics to drive your business and you know how the underlying data should behave. Your candidate pool for the roles above should come from the people who are most invested in two somewhat disparate things – what the metrics are saying about the health of the business, and the accuracy of the metrics themselves.

In our office supply company, the VP of Sales is ultimately accountable for revenue from existing clients. She is probably the person who looks at the retention dashboard the most, and she might be your Executive Sponsor. The Data Steward might be the person who is actually responsible for the customer retention process. He will know what activities his team is doing and what data points result from those activities.

The Data Governance Driver might be the person who is responsible for putting the data points together to form the metrics. In order to do this effectively, she will have to understand both the processes that create the data, and the mechanics behind how that data comes together.



Bad data is a
direct result of
bad methods...

#3 Build the Process

Funny thing about processes; when they are bad, they usually start being bad at the very beginning but only get noticed at the very end. That's why bad data that finally surfaces in a data warehouse or a reporting tool is so helpful. You start tracing the problem from a number that doesn't make sense on the dashboard, to the cube, to the data warehouse, to the transactional database and then finally, there it is – bad data as a direct result of the method that placed it in the database itself.

This is the classic 'garbage in/garbage out' syndrome, and it is precisely what a data governance program is designed to eliminate.

Rob Karel of Informatica summarized three major data lifecycle process stages in a classic blog post¹– here is a summary:

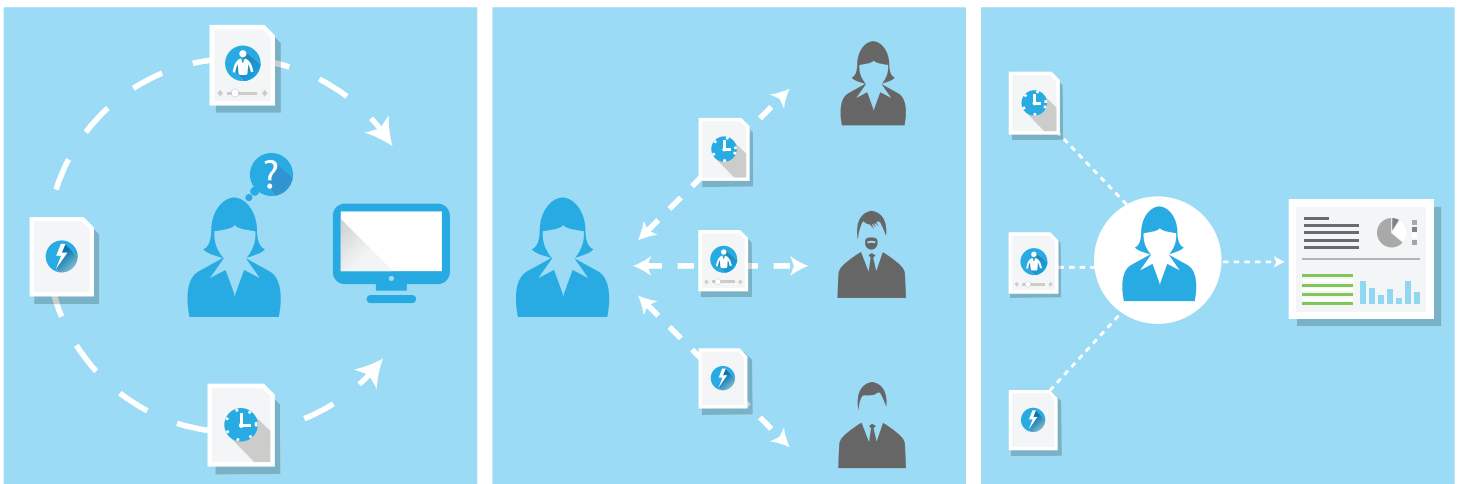
Upstream Processes – These are the business processes that capture, create, import, purchase, transform or update data and introduce it into your organization's information ecosystem. One of the most common, and toughest to solve, data governance challenges centers around the reality that those in the organization responsible for these upstream processes rarely have visibility, or incentive to care, about who is consuming this data downstream, and why. This is where an influential and senior executive sponsor comes in. Your sponsor must enforce and evangelize amongst her peers the recommended data capture and maintenance policies generated by the data governance organization.

Stewardship Processes – Stewardship refers to the actual human powered activities around defining the data policies, business rules, standards and definitions created and mutually agreed upon by your data governance program. The activities in question include identification, notification, escalation and mitigation of any exceptions to your data rules that require manual intervention to resolve. It is a living, breathing, ongoing thing, and this might shed some light on the skill set needed among your Data Stewards.

¹Link to Rob Karel blog: <http://blogs.informatica.com/perspectives/2012/08/30/data-governance-sustains-your-data-lifecycle/>

Downstream Processes – These are the operational and analytical processes that consume, protect, archive, purge and otherwise draw insight and value from data. This is where the users interact with the data – it's the dashboards, distributed operational reports and ad hoc reporting capability that your company makes decisions on. Your executive sponsors will only agree to support changes to your upstream processes, systems and organizational behaviors if you can deliver significant business value and ROI against these downstream processes.

To better understand these abstract processes, let's go back to our office supply company which sells three different colors of laser printer paper. The controller analyzes the **Downstream Process** of inventory cost by analyzing inventory turns through a BI dashboard. This information relies on the **Upstream Processes** of a receiving clerk who documents the point in time when laser printer paper arrives, and shipping clerks marking when it leaves. When the controller identifies that printer paper is being ordered and received into the warehouse daily, despite the inventory turn being low, he realizes the Upstream Process isn't recording the variation on paper color. While white paper is turning quickly, yellow and blue are sitting in the warehouse. This discrepancy is communicated by the BI solutions and then addressed through the **Stewardship Process**.



Strategic goal;
Manage data as
the true asset
that it is.

#4 Policing the State

Your company already has Data Governance policies in place; you likely just call them something else. If you have a form in your CRM system that sales-people use to enter new client data – then that counts. It governs the data input process. The tricky part is that while this form might be sufficient for the up-stream process of capturing client data, it might be ‘garbage’ for the downstream process of profiling, segmenting and marketing to your client base later in the lifecycle.

There is one big, strategic goal when thinking about building policy – get your organization to manage data as a true asset. Even if you get one department to do this, or one business process, you are helping achieve corporate goals.

Here are the common policy areas that will ensure you get started on the right track:

Data accountability and ownership – You would be surprised at how often corporate data does not have an owner. ‘We are all responsible for data quality,’ or ‘Data integrity is everybody’s job,’ is not the right answer. If everybody owns it, then nobody does. It is easy to go wrong here because ownership can quickly take on a political tone. Ownership should be in place for one reason; to ensure that the data is being captured to answer business questions.

Organizational roles and responsibilities – Remember the Data Stewards and Drivers? These policies document and make clear the responsibilities of them and other dependent stakeholders. Think of the RACI matrix when devising these: who is responsible for the day to day work, and who is ultimately accountable, etc.

Data capture & validation standards – Stop the garbage in! These policies define minimum required data capture standards, data validation rules, reference data rules, etc. The goal is to ensure the people, processes and systems that capture, import, update, transform or purchase critical data do so in a consistent, standardized manner with a focus on quality.

Data access and usage – Usage policies ensure appropriate use of data by appropriate stakeholders. Limiting access of sensitive or confidential information ensures regulatory compliance of course, but also ensures optimal use of data assets. It's helpful to think of roles when considering data access: salespeople have certain responsibilities and they need certain data (usually limited) to fulfill those. Finance folks have different responsibilities and so need different data.

Establish a track record of this type of behavior, and all of the sudden the quality of your revenue rises because you can predict it.

**GOOD CLIENT RECORDS =
INCREASED ABILITY TO KNOW CLIENTS =
INCREASED ABILITY TO SERVICE CLIENTS =
SURPRISED, DELIGHTED AND HAPPY CLIENTS =
INCREASED REVENUE**

Data Governance – not what it appears to be?

If you start to think about data governance this way, it quickly changes from being about data to being about risk. It's the risk of losing clients because your accounting people are using bad information to do the billing. It's about the risk of missing opportunities because your marketing people are using bad data to try to understand the client. It's about general enterprise risk because your processes and technology are not putting a tall enough hedge around sensitive client data.

You can quickly appreciate that data governance is not really about the data at all. The data is actually just records or events that have been recorded – call them facts stored in a database. Sometimes they are calculations based on a combination of these facts, but even those are just math, subject to a static set of rules. They really have no personality or will of their own.

The term 'bad data' is actually misleading. The data itself didn't do anything wrong. It's the people, processes and policies around the data that are doing something wrong. These are the things that have free will, that get broken or that get changed with unintended consequences based on somebody's whim.

So instead of asking: How can we fix our bad data? Ask: What capabilities are we trying to enable for our organization? What decisions are we trying to support? How can changing the way we initially record the facts about our new clients make them love us more?

Now we are talking about things that can make a difference! When we ask: 'What capabilities do we need?' we are really asking a question about our people; what do our people need to do? How do they need to do it? How can we make our data work to support them in that mission?

²[RACI matrix](#)

Back to Business Intelligence

A successful BI implementation is often an exercise in setting priorities: 'we need to gain visibility and control over our AR balances first.' 'Next we need to tackle inventory, then sales.' At Jet Reports we believe the best way to deliver results is to take an iterative approach. 'Deliver fast and deliver often' is our motto.

This means it is important to approach each business area as an almost independent BI project, tackling each report, KPI or metric separately. The implications for data governance are that once you see the data flowing out of the system in report form, you know what to tackle, piece by piece, in terms of data quality.

This is very hard to do otherwise, where the tendency is to look at data governance as a whole and try to fix the data in the same holistic way. That becomes an overwhelming project that can stop other initiatives in their tracks.

It is a regular occurrence that when companies install a BI solution, all the inconsistencies in their data are highlighted. A common one is sales orders that are posted without being attributed to either a customer or a salesperson – revenue is unaccounted for.

'How can this be?!' is the usual refrain. 'We have business rules around posting invoices that are supposed to prevent this from happening.'

Whether it was an innocent work-around or a full-on policy breach, something, somewhere caused those business rules to be violated. What once was a hard-to-unravel mystery is now easy to spot, and easy to solve.

At Jet Reports, we treat Business Intelligence as a data management project, and we have helped hundreds of companies make sense of their data by building an environment that facilitates data integrity and complete visibility at the same time. We invite you to talk to one of our BI and data fanatics about how can help your company today.

Remind me why I care?

Let's get this out of the way. Data Governance sounds boring. The words themselves imply general unpleasantness like rules, regulations, compliance – a governed state. It's not as exciting as a flashy dashboard full of insightful KPI's. Why is it important?

Because simply put, nothing, absolutely nothing works without it. Let's start with the most important thing – revenue. No company survives without it, and you are probably monitoring it very, very closely. But, if data around this income is not right, things start to fail.

Take the direct sales company that relies on repeat business from a loyal set of clients. If your office supply vendor kept sending you duplicate bills, and the pizza place kept delivering to your angry neighbor, you would do business elsewhere. Here's the formula:

Bad client records = inability to service clients = lost clients = lost revenue

Your Authors:

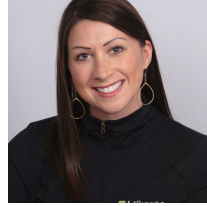


Jonathan Oesch

Loves ERP, Loves Data. Loves what happens when data from a transaction processing system gets turned into usable information that people can rely on; “It’s like that chemistry lab in college where you walk in with your raw supplies and leave with a perfectly round rubber ball.”

VP of Sales at Jet Reports. Speaks, writes, blogs and tweets about BI strategy – sometimes in his sleep.

jono@jetreports.com



Tara Grant

Obsessed with taking the company wish list and turning it into hard-hitting, strategic action items. Has dedicated her entire career to ridiculously useful, fast, flexible reporting and analytics solutions. Her bottom line: “If you aren’t in the business of collecting information for a competitive advantage, you aren’t really interested in being in business at all.”

VP of Marketing (aka Queen of Strategy) at Jet Reports.

tarag@jetreports.com

To learn more about **Eliminating BI Failure: 4 Steps to Avoid Improper Data Governance** [contact us today!](#)

Jet Reports delivers unparalleled access to data through fast and flexible reporting and business analytics solutions that are cost effective, provide rapid time-to-value and are built specifically for the needs of Microsoft ERP users. Embedded within the familiar Excel environment, Jet Reports leverages the existing skillsets of users and offers out-of-the-box reports and dashboards so companies can immediately eliminate all expensive, time consuming and error-prone manual tasks to get the accurate business information they need, when and where they need it.

Over 10,000 companies rely on Jet Reports every day for their financial reporting.

