Customer Data Quality in Context

A Business Perspective

Freeform Dynamics Ltd

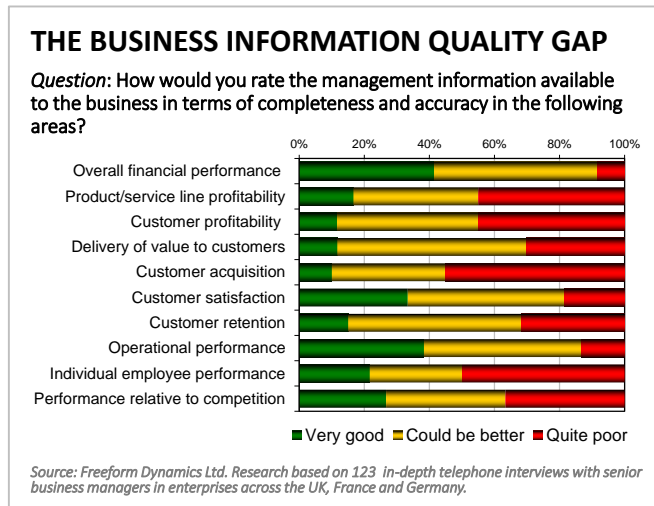November 2013

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Introduction

As a business manager or executive, you probably don't spend that much time thinking about how data is managed in your organisation. There are teams within the business and your IT department that take care of that, right? And of course you know that they are properly qualified and generally doing a good job.

Yet if you stop and consider it for a few minutes, you can probably come up with recent examples of situations in which you have been presented with data that turned out to be less than totally accurate, complete or consistent. It's then interesting to consider that before this data got to you, it passed through multiple people who performed numerous checks along the way – and there were still issues. But did anyone get fired, or even reprimanded? Almost certainly not.

The truth is that in most businesses today, we accept that electronic information stored in computer systems is frequently inaccurate and incomplete, and that data from different systems will often yield different answers to the exact same question. This information 'quality gap' comes through consistently in our research[1], and the example chart to the right illustrates the widespread nature of the challenge. The picture we see reflects the way things are, and the way they have been since most people can remember. You therefore adjust your expectations and learn to apply a common sense check when looking at sales breakdowns, profitability analyses, and so on.

THE BUSINESS INFORMATION QUALITY GAP

Question: How would you rate the management information available to the business in terms of completeness and accuracy in the following areas?

Legend: ■ Very good ■ Could be better ■ Quite poor

Source: Freeform Dynamics Ltd. Research based on 123 in-depth telephone interviews with senior business managers in enterprises across the UK, France and Germany.

If this doesn't apply to you, at least to some degree, then it could be that everything is perfect and all of your business and IT systems are totally in sync. Given the way in which working practices, requirements, regulations and systems have evolved over the years, however, the chances of everything being that well aligned are slim. This view is reinforced when you consider that changes have frequently taken place in different ways and at a different pace in each part of the business.

What's most likely is that processes and intermediary systems have been put into place over the years to 'smooth out' the differences, fill in the gaps, and make the anomalies go away as part of the reporting process. These will be based on a set of assumptions and manipulations that you may or may not want to know too much about. The end result is generally an illusion of coherence, but behind the scenes, the actual data sitting in individual systems remains far from perfect.

The impact of data disjoints and quality issues

Many of the problems stemming from the disjointed nature and variable quality of corporate information will be familiar to you. From a management perspective they generally translate to additional cost, distraction and delay, and often cause unnecessary risk.
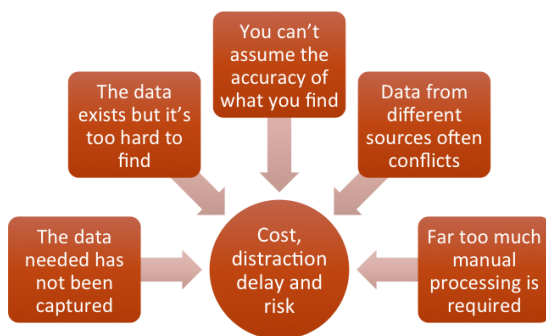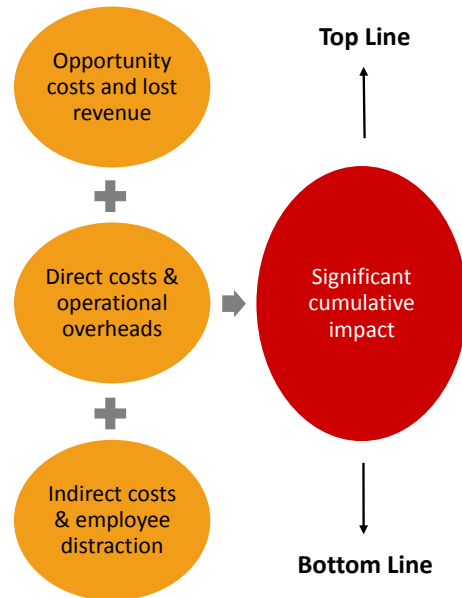

If you receive information too late, for example, you may miss an opportunity or fail to nip an issue in the bud before it develops into a crisis. If you make an important business decision based on information that later proves to be inaccurate or incomplete, the company might lose money or run into regulatory problems.

What's sometimes less obvious from a management perspective is how data-related challenges have a negative impact on the business at an everyday operational level.

Take the simple example of a shipment ending up in the wrong place because the customer address held by the sales department was different to the one on file in logistics. If this occurs often enough the additional cumulative direct cost to the business can be significant. This may not be something that's tracked explicitly, indeed it may not occur to anyone that money and time are being wasted in this way, but these are relatively easy to quantify if the relevant information is analysed.

The cost of time spent in customer services dealing with inquiries and complaints as a result of poor quality data can also be calculated if an appropriate call logging and incident classification scheme is in place. Whether it's sorting out a poorly handled change of address, or a disjoint between the billing system and customer-facing web-portal, again the aggregate cost can be substantial.

Beyond these direct and visible consequences, we then have indirect costs and overheads. While these are more difficult to quantify, they are no less significant, and in many cases can be even more damaging to the business. How many customers experiencing late delivery are discouraged from placing future orders, for example, and how many defect to the competition when after multiple calls your customer service desk still couldn't seem to get their details right? Just because measuring such impacts is hard doesn't mean that the costs to the business aren't considerable, especially when lost revenue and damage to your reputation are factored into the mix.

Opportunity costs and lost revenue

+

Direct costs & operational overheads

+

Indirect costs & employee distraction

Significant cumulative impact

Top Line

Bottom Line

And such issues persist because no one challenges the way things are. Just like you as a manager have learned to live with inaccurate and inconsistent business intelligence, many of your people will have similarly accepted problems with customer data quality. They therefore don't bother to highlight the issues and simply work around them, making appropriate allowances for the additional overhead and disruption. Ignore the problem for long enough and poor customer data quality eventually becomes institutionalised.

So why not just fix it?

It would be nice to think that you could create a straightforward initiative that would conclude with all of your data-related challenges being fixed forever. Unfortunately, it isn't quite that easy. Even if you allocated resources to getting one set of data sorted out within a single system, it would not stay in good shape for long.

A phenomenon we can refer to as 'quality drift', means that in the natural course of things, the quality of any active data set generally degrades over time. One of the reasons for this is because humans, business processes and computers are all imperfect in the way they handle information. Data entry

DATA QUALITY

QUALITY DRIFT

TIME

Employee/customer data entry
Records not kept up to date
Software faults and limitations
Software not kept up to date
Contamination from external data

errors, failure to detect and record changes in information (e.g. a new address for a customer), system faults, and software functionality not keeping up with changes in policy or processes are all contributing factors. Databases can then become contaminated by poor data loaded in from the outside world, e.g. lists of contacts acquired by the marketing department in preparation for a campaign.
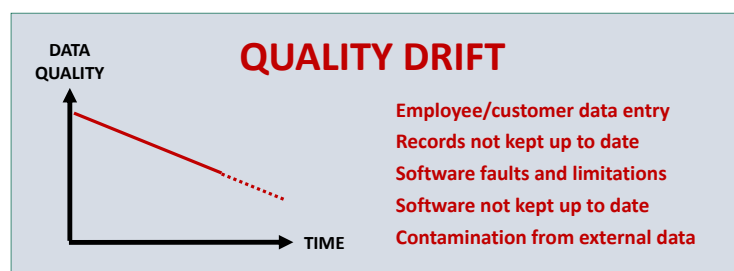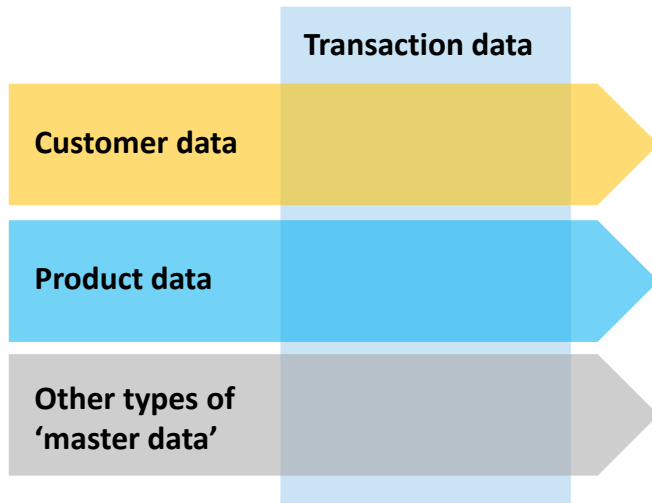
Given that 'fixing' humans is generally impossible, and fixing, modernising and harmonising all of the processes and systems that touch your customer, product and transaction data is unlikely to be cost-effective, it's unrealistic to aim for a universal solution. This is why so many corporate initiatives in this area fail to deliver. It's too easy to end up trying to boil the ocean.

A more targeted and realistic way of driving improvement

Against this background it is necessary to break your information-related problems down into more manageable pieces. In the first instance, this comes down to putting some boundaries around the type of information you are going to tackle. When doing this, it is useful to distinguish between two important types of information: 'transaction data' and 'master data'.

Examples of transaction data would be records relating to sales, deliveries, purchases, receipts, inventory movements, customer service calls, and so on. This type of data typically represents the bulk of the volume stored in company databases. But it also tends to be very diverse and specific to individual systems and business processes, so tackling quality issues in transaction data can be complex, time-consuming and costly.

Transaction data

Customer data

Product data

Other types of 'master data'

Master data refers to the entities or 'things' with which transactions are associated, and the two most obvious examples are customer and product data. What's notable about master data is that the same piece of information is often relevant to multiple systems and processes. Details of any given product or customer, for example, are likely to be used in multiple parts of the business, such as marketing, sales, administration, logistics, and customer services. Initiatives focused on dealing with master data quality and consistency therefore have a much broader positive impact. They also tend to be more manageable from a cost and complexity perspective as it is possible to focus on just one type of data at a time.

Beyond the general question of focus, targeting customer data in particular for an improvement programme has a range of specific benefits that it's worth exploring a little more closely.

Benefits of investing in customer data quality

Unlike some other forms of master data, customer information has the advantage that external reference sources are available. Service providers exist for whom part of their core business is maintaining accurate and complete records of business and consumer details.

An important principle to appreciate here is that data quality needn't just be about dealing with basic elements such as names, titles, addresses, and so on. Reference data from service providers can be used to 'extend' your customer records with 'value added' information. In the case of consumers, for example, this can range from demographic information, through electronic contact details and preferences, to social media identities.

Enriching your data in this way can not only help to optimise routine customer communication, but also enable a greater understanding of your customers and their behaviour, which can in turn be used to drive both efficiency and effectiveness. As a simple illustration, consider the benefit to a car dealership being able to target a campaign at more affluent customers and prospects, without wasting time and effort reaching out to those that are never going to buy the high-end model being promoted.

In practical terms, well-proven services, technologies and techniques are now available which allow external reference information to be brought to bear on your customer information very cost effectively. And this need not be just part of a one-off clean-up exercise. Solutions in this space allow your IT department to build an environment in which customer data is kept in good shape on a continuous basis. The general approach is described in our companion paper[2] entitled 'Managing Customer Data Quality', and in one sense, this represents an antidote to the problems and negative impacts discussed previously. A more compelling way to think about it, however, is that it allows you to create incremental business advantage on a sustainable basis:

CREATING SUSTAINABLE BUSINESS ADVANTAGE	
Benefit	**Mechanisms**
More effective/efficient marketing	Sourcing and preparing data is a major part of a marketing campaign, so clean, complete and accurate customer data reduces effort, cost and time to execution. Put this together with better targeting and the result is that more campaigns can be run, with shorter lead-times and improved response levels.
Harmonisation of sales activities	If your company is organised by product line, with business units maintaining their own databases, it can be hard to reconcile activity for any given customer. Consistency of customer data between departmental systems allows reporting and analysis to be done that can reveal synergies and cross-sell opportunities.
Optimised customer service	Sales and profitability can also be enhanced by encouraging repeat business through better customer satisfaction. Good data means fewer customer issues during the course of doing business, and when problems do occur, a better customer service experience, e.g. fewer hand-offs and faster resolution times.
Optimised operations	Better customer data means fewer mistakes in areas such as logistics and billing. In addition to improving customer satisfaction, this means less time and resource spent on remedial action, and fewer interruptions of the order-to-cash cycle. Further benefits come from smoother dealings between departments.

This list is far from exhaustive, and depending on your organisation, you may see benefits in all kinds of other areas, including in relation to risk management. Accurate customer data, for example, can help with many aspects of compliance. The ongoing validation and checking process itself, especially when external reference data is in the mix, can also provide assistance with fraud management. This is one of the many benefits that stem from the creation of a single view of the customer.

Zooming out and taking a higher level business performance management view, many of the benefits of improved customer data quality map directly onto the KPIs often found on business score cards[1]. Some of the more relevant metrics are indicated in the diagram to the right, and the positive impact on these can be used as the foundation for building a solid business case for investment. This is important because a common impediment to moving forward in this area is a lack of appreciation of how customer data quality can have such a profound impact on business performance.
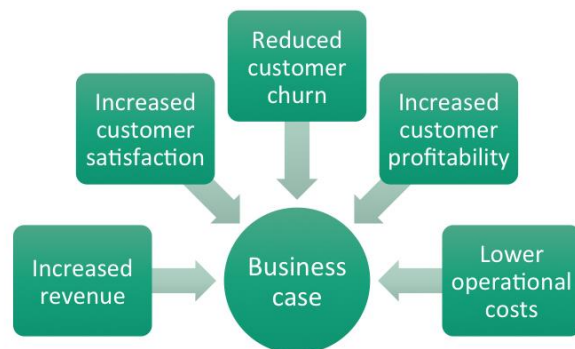
Of course the other reason poor data quality persists in a more general sense is because the problem is viewed as too complex, costly and/or challenging to tackle when business managers and IT personnel have so many other calls on their time. Breaking the problem down and focusing on customer data initially means initiatives are scoped for success and rapid delivery of ROI.

And the good news is that you don't need to go it alone. Working with suppliers that have the necessary skills, technology and track record of delivery allows you to accelerate progress, minimise distraction of key personnel, and improve your chances of success into the bargain. The right partner can help you assess your needs then plan and execute an efficient and effective improvement programme, and ultimately create the kind of sustainable business advantage we have described.

References and further reading

1. The Business Information Illusion: Seeing through to the reality and acting upon it

2. Managing Customer Data Quality: A View for IT Leaders and Architects

The above papers and reports are available for download at www.freeformdynamics.com.

About Freeform Dynamics

Freeform Dynamics is a research and analysis firm. We track and report on the business impact of developments in the IT and communications sectors.

As part of this, we use an innovative research methodology to gather feedback directly from those involved in IT strategy, planning, procurement and implementation. Our output is therefore grounded in real-world practicality for use by mainstream IT professionals.

For further information or to subscribe to the Freeform Dynamics free research service, please visit www.freeformdynamics.com or contact us via info@freeformdynamics.com.

About Experian and Data Quality

Experian QAS has built up exceptional market coverage assisting customers with their unique data quality challenges. We provide a comprehensive toolkit for data quality projects combining our market leading software with a vast scope of reference data assets and services. Our mission is to put our customers in a position to make the right decisions from accurate and reliable data. The size and scope of data management projects varies considerably but the common factor in all ventures is unlocking operational efficiency and improving customer engagement. We see the potential of data.

Our solution portfolio includes:

Data quality tools
Take greater control of your data accuracy with our comprehensive range of data quality tools for public and private sector organisations.

Data quality services and consultancy
Struggling to implement a data quality strategy? Our data consultants have a wealth of experience executing data related projects.

Data quality for enterprise applications
Improve the return on investment from your enterprise applications with our seamless data quality integrations.

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