

# Focus Experts Briefing: BI Data & Metrics

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# Introduction

Business intelligence (BI) solutions can literally help businesses to become more intelligent about key operations and processes. However, these solutions are only as valuable as the data that is fed into them and the KPIs (key performance indicators) that are monitored. Well-chosen KPIs and quality data ensure that BI solutions can generate reliable, actionable information. This Research Briefing leverages the expertise and experience of Focus Experts and other Focus Community members. Their guidance will help you to get the best information into and out of your BI solutions.

**We would like to recognize the contributions of the following Focus Experts to this Experts Briefing:**

**Kirsty Lee** ([www.focus.com/profiles/kirsty-lee/public/](http://www.focus.com/profiles/kirsty-lee/public/)), author of *30 Performance Indicators You Can (and Should) Measure* (see page 3) is a marketing representative at We Are Cloud.

**Eric Britten** ([www.focus.com/profiles/eric-britten/public/](http://www.focus.com/profiles/eric-britten/public/)), author of the best answer to the question *What Are Good Examples of KPIs to Track?* (see page 5) is president of Britten & Associates.

**Wayne Kernochan** ([www.focus.com/profiles/wayne-kernochan/public/](http://www.focus.com/profiles/wayne-kernochan/public/)), author of *Garbage In, Garbage Out: Getting Good Data Out of BI Systems* (see page 6) is president of Infostructure Associates.

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# 1

# 30 Business Performance Indicators You Can (and Should) Measure

## Introduction

It's all good and well using a BI solution to measure your business performance, but before you start blindly measuring anything and everything, what are some of the specific KPIs or metrics that you could focus on? They are the backbone of scorecards and dashboards, which have become an irresistible way for organizations to present performance information. Look out for our blog post next week about the differences between dashboards and scorecards.

One thing to remember: A KPI is a metric, but a metric is not always a KPI. When we use the term metric we are referring to a direct numerical measure that represents a piece of business data in the relationship of one or more dimensions. A KPI is simply a metric that is tied to a target. More often than not, a KPI represents how far a metric is above or below a pre-determined target. KPI's are normally shown as a ratio of (actual : target) and are designed to instantly inform a user if they are on track with their plan, without the end user having to specifically focus on the metrics being represented.

You should identify the most important indicators for your specific organization's needs, but here's hoping that this post will give you some inspiration or at least a starting point. Choose a few indicators to start off with; measure them on a regular basis and share them throughout your organization – you can always add more later on!

## Analysis

Here is a list of just some of the more mainstream indicators.

### Sales

1. Bookings
2. Number of orders
3. Sales qualified leads

### Finance

4. Revenues
5. Expenses
6. Profits
7. Operating margin

### Technical Support

8. Number of support calls
9. Resolved Cases
10. Average waiting time

## **Manufacturing**

- 11. Number of units manufactured
- 12. Manufacturing times
- 13. Number of defects

## **Fulfillment**

- 14. Number of days to ship
- 15. Inventory levels
- 16. Return rates

## **Marketing**

- 17. Marketing funnel (e.g., Inquires -> Marketing qualified leads -> Sales qualified leads -> Opportunity Pipeline)
- 18. Customer demographics
- 19. % Revenue sourced by marketing
- 20. Referrals
- 21. Social media mentions

## **Human resources**

- 22. Employee satisfaction
- 23. Employee turnover

## **Information Technology**

- 24. Network downtime
- 25. Fixed application bugs

## **Web Services**

- 26. Number of visitors
- 27. Click through rate
- 28. Conversion rate (e.g. number of product registrations)
- 29. Average time per visit
- 30. Bounce rate

## **Conclusion**

What other KPIs would you add to this list?

— Kirsty Lee, Focus expert and marketing representative at We Are Cloud

# 2

## Q&A: What Are Good KPIs to Track?

### What are some examples of good KPIs (key performance indicators) to track?

Our company just implemented an ERP / business intelligence system that tracks KPIs across all departments. I work in the sales department and I'm wondering what KPIs would be good for us to track other than the usual revenue, opportunity, and lead nurturing numbers. What KPIs does your company track? Are there other KPIs in other departments that I should be aware of? How else can our sales department make better use of our ERP system?

— Alvin Lancaster, vice president of a small start-up

#### Best Answer

Alvin, I'll take your first question. Yes, each department should have its own KPI's as they should reflect the performance of that specific department so the department can watch them on a weekly or other shorter term basis and make changes as undesirable variation is indicated. For instance, sales might track things like: average sale, average margin per sale, sales per sales representative, lost accounts, etc. A/R might track: total receivables, receivables over 30, 60 or 90 days, average overdue receivable, average account aging, per cent of receivables that are over terms, etc. The KPI's should reflect whatever that department's priorities are based upon their goals, annual operating plan, or short or long term strategies. KPI's, if possible, should not just count things - they should tell some sort of story, so ratios and percentages often make better KPI's than just the number of things in some category.

— Eric Britten, Focus expert and president of Britten & Associates, LLC

#### Additional Answer

I hope I can do justice to the second question after that opener. Now that you have a "story" from each department, you can:

- 1- Compile these into an overall story for the organization. An Executive Summary. You can quantify performance and in essence compare "apples" (the finance team) to "oranges" (IT).
- 2- Then backtrack to identify areas of opportunity within departments or see patterns in the organization as a whole.

Once this is complete you have a quantified/fact based picture of the organization that can be used to:

- 1 - Support better decision making across the organization
- 2 - Focus planning and resources more effectively
- 3 - Increase efficiency and reduce costs within the organization
- 4 - Eliminate redundancy

The list goes on. Many times it is easier to gather the data than it is to take action it. This is where many of these projects fail.

— James Arvidson, project manager at Teleperformance

#### Read the full conversation:

<http://www.focus.com/questions/finance/what-are-some-examples-good-kpis-key-performance-indicators/>

# 3 Garbage In, Garbage Out: Getting Good Data Out of BI Systems

## Introduction

Recently, a big topic in BI has been the importance of “data quality” – in essence, cleaning up the data that is presented to the data warehouse so that the errors, inconsistencies, and so on are eliminated as much as possible. What many users do not realize is that this is just a part of a larger problem: How do you get the most out of the business-relevant data floating around, inside and outside the organization? As it happens, I performed a survey and study on the subject last year.

## Analysis

What does this study recommend? The short answer is, you should start thinking of your organization as being in the business of gathering data, turning it into information, and using that information as effectively as possible. In other words, you think of your organization as trying to get as much high-quality, potentially useful information to your BI solution as possible, and then analyzing that information, followed by using that analysis to make decisions as rapidly as possible. Then you try to develop a set of metrics that will tell you how well you are doing, and what are the weak points in the process.

This set of metrics measure what I call data usefulness. I define data usefulness as the ability to deliver all needed accurate, consistent, and appropriate data to the right user in a timely fashion. My survey in the study convinces me that there are significant and growing problems at every point in the process of converting data into useful information. Table 1 shows my take on the typical steps in the data-delivery process, the metrics by which the effectiveness of each step should be judged, and the problems that many are seeing today at each step. The key take-away point is that fixes to one or two steps will not in the long run fix the overall data-usefulness problem. Rather, organizations of all sizes need to take a comprehensive, long-term approach to ensuring data usefulness.

Step	Metric	Example	Problem
Data entry	Accuracy	Percent of data items with errors	Majority of businesses report more than 15% of items with errors
Data consolidation	Consistency	Number of data items with multiple records and no master record	Majority of businesses report more than half their data inconsistent
Data aggregation	Scope	Percent of data sources on which a cross-data-source query can be performed	Majority of businesses report they can't do cross-database query on more than 2/3 of company data
Information targeting	Fit	Percent of time data delivered that is not appropriate to end user	Majority of businesses report more than 60% of the time, data delivered to executives inappropriate
Information delivery	Timeliness	Time taken to deliver (entry to arrival on screen) to average user	Majority of businesses report a week or more average time to deliver
Information analysis	Analyzability	Percent of time user can't immediately do online analysis of data received	Majority of businesses report can't do immediate online analysis more than 1/2 the time
Process adjustment	Agility	Percent of new outside data sources not available within 1/2 year	Majority of businesses report more than 3/4 of relevant new Web information not made available inside the company within 1/2 year

Chart Source: Infostructure Associates, March 2009

The Data Delivery Cycle also shows that, by users' own estimation, more than 2/3 of the data that flows into the organization is not used effectively. In fact, if you include the inability to flow new sources of data into BI, more than 3/4 of the useful data out there never gets used right.

## Conclusion

There is a great deal of more in this study about how to tackle particular parts of the problem, what vendor products and solutions deliver the biggest bang for the buck, and how to monitor the process – material that is far too long to cover here. However, users can take certain steps immediately, without knowing that much about data usefulness. Those steps are:

- 1.** If your company now includes 2 or more (usually acquired) organizations whose operational data is at least partially kept separately, put an EII (Enterprise Information Integration) or “data virtualization” tool in front of your BI, so you can query both sets of data at once. Examples: Composite Software, IBM Information Server.
- 2.** Get a dashboard BI add-on for senior executives, so that you can fine-tune the relevance of the information presented to them, and perhaps be able to display more current information than standard BI reporting tools. Examples: BI solution vendors such as SAP Business Objects and Microstrategy.
- 3.** Make sure you have an Excel option for your BI solution, so useful information can be delivered as spreadsheets as well as hard copy. Examples: Oracle OLAP Option and 1010data.

One caution: today as in the past, the first reaction to problems with data usefulness is to attempt to put everything to do with data in the BI organization, and all data in the BI data store. Experience has shown that this never, or only temporarily, works. There's just too much data floating around out there, and more new types of data coming all the time. Improving the quality of data coming into the BI solution is one thing; attempting to force everyone to enter all data into the BI solution is quite another. Don't waste your time and money on the latter.

— *Wayne Kernochan, Focus expert and president of Infostructure Associates*

# About Focus Research

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\* Source: Visa, Inc. Commercial Consumption Expenditure Index fact sheet.