

MILKING THE DATA COW

We are living in a world rich in information – data is driving the way we're doing business, the way we shop, the way we travel and the way we educate our future generations

Using data collected in your business and complementing it with external data can lead to significant improvements to the way you operate, and can be the competitive advantage your business has on your competitors.

We are all familiar with terms such as business intelligence, analytics, big data, KPIs and so on in our working life, but do we really make the most out of these concepts and take full advantage of the data we have at our fingertips?

Let's look at the data we have readily available within our business. Most businesses will use some sort of ERP system to manage their products, sales, purchases, customers, suppliers, employees and so on. They might use a separate system for warehouse management, a separate system for customer support and so forth.

Some of the data stored in these systems may be related and some may not, but most of the time we tend to ignore the potential correlation in the data because it resides in disparate areas. For example, a payroll system stores employee leave requests for payroll purposes, but this piece of data is critical for production scheduling in a manufacturing scenario.

The idea is to enter the data once, but use it anywhere, especially when the data is captured by people working for the same business – though in different departments – which will suggest it can have a high degree of relevancy to the business.

Of course, the trick is to use each piece of data in as many places as you reasonably can. For example, many people might have volume and weight measures on their ERP system. You might be using it for estimating transport costs as part of your transport planning. But maybe you could also use it to help manage your inventory planning.

For example, in using accurate transport estimates when doing Dynamic Supply Chain Reconfiguration, DSCR determines whether you should ship direct to each state warehouse, or if it might be smarter to ship to one warehouse which can act as central DC and then trans-ship to other warehouses. You can properly work out the likely transport costs and compare them with how much you can save in carrying costs, especially for items with MOQs or large pack sizes.



Similarly, you can make much more accurate estimates of transport costs when you are doing cross dock optimisation choices. Should you be sending stock directly to each warehouse or can you improve profitability and ROA by sending an item with an MOQ or pack size to the warehouse that needs it most or can tranship smaller quantities to other warehouses at least cost?

After all, if you gather data via your business processes, it all has a cost. It is important to maximise the benefits from such an investment, and make better informed decisions based on facts collected in your business.

Data also exists outside the boundaries of your business, and some of it is easy to access, free of charge and could be very useful for planning and operational purposes. Weather feeds, foreign exchange rates, transport and freight feeds, general news (earthquakes, floods and so on) are just a few examples for third party data sources that businesses can tap into in order to make better decisions. There are of course government data sources which may contain more territory specific data, such as agriculture data, energy data, vehicle registration data and so on; one can find such on websites such as www.data.gov – the US government open data website.

These data sets can assist in our decision-making process and ensure we maximise our chance of making the right business decision rather than guesstimating what might happen.

The examples so far have covered one way of the data highway – inbound data from one system within your business or external data source outside your business – into a business system such as an ERP.

But the data highway can also work the both ways: we can also push and feed data back to the same system we got the data from originally after processing the data. For example, while the

Horizon Inventory management system can integrate with and use external data, our system can also add a lot of value back to other parts of your supply chain management system.

For example, our largest client has hundreds of warehouses. They are automatically replenished using a feed from the Horizon Inventory management system to the warehouse management system, with picks being generated in the warehouse management system after stock movements are auto-released straight into the ERP system. This happens for 95 percent of their replenishments, all made possible because of the policy driven optimisation approaches embodied in our software.

Similarly, a lot of other possibilities for seamless integration arise through, for example:

- Telling the ERP system the maximum quantity which should be processed from branch stock when an order is received. Bigger than that and the stock should be sourced from higher up the supply chain. This is all possible because of the policy driven optimisation engine. However, when you integrate you can gain even more from it.
- Using the demand profile and Pareto analyses from the inventory management system to help optimise warehouse layout. Again, you can gain much more when you utilise valuable data even more.

Of course, you need a systems partner to help make good data even better. It is really only through the use, reuse and integration of data that you can gain the most benefit.

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