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Five golden rules for converting data to decisions

According to Sanjay Mehta, CEO, MAIA Intelligence enterprises need to grow beyond the four walls of spreadsheets and start building data-warehouses in order to gain enterprise-wise transparency and a competitive edge

BUSINESS DYNAMICS CHANGES DRASTICALLY in any industry—be it manufacturing, retail, telecom, pharmaceutical, healthcare or BFSI. There is competition in every business. Performance is the key to the success of any enterprise and performing well is not an option anymore.

Most enterprises have invested in and implemented an Enterprise Resource Planning (ERP) solution and may now look upon pulling data from a variety of sources and databases to create reports efficiently—to gain a clear view of operations and to support better decision making.

It is vital for organizations to leverage their data assets to measure their business performance, identify the weak spots and strategically improve their business to scale new heights.

Data remains one of our most abundant yet under-utilized resources. Business Intelligence (BI) allows businesses to integrate this data from disparate sources to provide deeper insight and, by extension, greater competitive advantage.

New interfaces and approaches to BI are empowering decision makers by providing relevant data within a user-friendly interface. BI provides additional levels of performance helping users gain real-time insight into their data. Enterprise-wide BI helps make relevant data available more widely; whereby it helps business users take decisions at the point of impact.

Together, these three broad advances are helping to create BI solutions that allow information workers to make better-informed decisions that are aligned with corporate objectives. Decision making and strategy formulation no longer rely solely on knowing what happened. Now, they can be supported by comprehensive intelligence about what's happening now and by extension, what is likely to happen.

To ensure that the data can be trusted, a solid data foundation must first be established and aligned with the master data.

One of the most enduring traits of the information age is that we have focused too much on mastering transaction data and not enough on turning it into information and knowledge that can lead to business results. The information systems in organizations gather zillions of bytes of data from business transactions in order to serve operational or record keeping needs. We are awash in data on topics ranging from customer purchases, supplier payments, loan repayment schedules, work hours by charge code and the amount of education and training received by employees. Despite our growing abilities to collect all of this data, however, most of us are still struggling to develop the very capabilities that prompted us to gather data in the first place— the ability to aggregate, analyze, and use data to make informed decisions that lead to action and generate real business value.

SANJAY MEHTA, CEO, MAIA INTELLIGENCE

There is very little centralized control and no security controls on spreadsheet driven MIS reporting. Therefore, enterprises must unlock their business application data to gain visibility using BI

I remember a quote of Theodore Roosevelt, "In any moment of decision, the best thing that you can do is the right thing, the next best thing is the wrong thing, and the worst thing that you can do is nothing."

Let us now discuss what should be remembered while in the process of converting data to decisions. The following five points are the basic rules for any corporate to follow for transforming its information into knowledge. We call them the five golden rules for converting data to decisions.

Rule 1: Understand the goals and expected outcomes of end-user information requirements

Take into account the reporting and analysis needs of all business users (executives) with the CXO and managers. Data garnered should be appropriate for all the business users with correct and precise insights whenever needed.

Although many organizations have made significant investments in data collection and integration (through data warehouses and the like), it is rare that an enterprise can analyze and redeploy its accumulated data to actually drive business performance.

Enterprises in many cases still do not approach BI strategically, and thus their BI requirements and capabilities remain poorly understood. This is a significant barrier to having a clear understanding of which areas of BI organizations may benefit from.

Effective BI implementations depend on tight collaboration between the business unit and the IT department. As a general rule, BI implementations are more successful when business units become knowledgeable about available technologies and capabilities, and then communicate their needs to IT.

While companies have emphasized important technology and data infrastructure initiatives, they have virtually ignored the organizational, cultural, and strategic changes necessary to leverage their investments. They lack the broad capabilities needed to perform high-level data-based business analysis and the cultures, business processes, and performance measures needed to make and implement data-driven decisions.

Customers can start with end-user information requirements by conducting a formal poll asking about their information requirements. This helps provide end-users with means of obtaining necessary business information. This can be a good start for having a single version of the truth.

Rule 2: Remove spreadsheet based reporting

Discourage the heavy usage of spreadsheets as a standard reporting tool. If the data is non-transient—if it is that the data changes during the analysis and reporting timeframe and is used multiple times by many users and groups for multiple decisions, the spreadsheets are most likely a poor choice for sharing and initiating actions and decisions.

Educate business users to rely on a single source of truthful data. Forbid the use of spreadsheets in meetings and presentations. The wide spread use of spreadsheets across the enterprise can create multiple versions of truthful data. Further, the spreadsheet is popular among business users, especially among the finance and accounting users. Organizations too, allow the usage of spreadsheets and promote their use for simple reasons like little training being required due to its familiarity. One of the downsides of this approach is that the company has to continually audit the data and determine if there have been mistakes or corrupted formulas.

There is more to MIS than spreadsheets. Building a spreadsheet is easy. Planning, executing, collaborating, publishing secure data enterprise-wide is a different story. BI helps business users to rely on a single source of truthful data by forbidding the widespread use of spreadsheets across the enterprise which can create multiple versions of truthful data.

A spreadsheet is not a secure, enterprise-wide BI and data analysis tool. There is no control over data manipulation, security and transparency.

When you derive information from disparate, unconnected source systems, there is a fair chance that the numbers won't align. As businesses grow more complex and ever more digitized, we have seen an overwhelming proliferation of data streams. This becomes too much to handle, even for diehard spreadsheet users. Consistent information becomes commensurately more difficult to produce.

Rule 3: Establish a data quality competency centre

Data quality is one of the key components of any successful strategy to convert data to decisions.

Poor data quality causes blurry management decisions. Establish a data quality competency center. Make sure that the system with the data which has an audit trail with referential integrity and data integrity is in place.

Data incurs operational expenses at each stage in its lifecycle, because it costs money to capture, compile, analyze, update and store (or discard). Yet it creates value only when it is used. A good return on investment for data, therefore, depends on it being both economically managed and accessible for decision making.

Data quality issues are some of the hardest challenges to tackle in a company. Quite often, data quality problems only occur at the enterprise level, and not at the department or group that is responsible for the data.
For example, the data that the call center staff works with might look just fine to them as does the data that the field sales organization works with. But when you try to combine the two domains, you discover that both groups have developed their own separate, and incompatible, conventions for

documenting relationships and hierarchies between customers.

Data quality emerges as users create value from working with data. It implies value to someone—it is not a property that is intrinsic to the data itself. When nobody uses data, it has zero value. In order to execute corporate strategy, you need to know what's going on. To make data usable, it is eminently important to construct some uniform and consistent structure that houses the data—a data warehouse (DW) for making relevant and good quality data available to the business users.

Having good quality, readily accessible data is a tremendous asset. Turn bad data into better business practices and monetize what this change is worth to the business.

Poor data quality will most likely result in low match accuracy and produce an unacceptable number of false negative and false positive outcomes.

Rule 4: Unlock your enterprise from the transaction-based application for reporting needs

Your existing ERP, SCM, CRM, HRM and the like are best for recording your transactions but not for the generation of intelligent insight reports. Specialized reporting and analysis applications can expose your business users to altogether new and meaningful ways of viewing data and analyzing it. Organizations, whether big or small, face lots of challenges in reporting and analysis of data. ERP is capable enough for transactional reporting but they face challenges when it comes to complex analysis of data available from different sources. These challenges are creating a storm and a whole new set of requirement sis emerging around the MIS and BI. Organizations have already spent on ERP and should start investing in BI. In fact BI is the next big thing after ERP.

Do not confuse between ERP with BI. Both are different. ERP is a transactional application primarily meant for collecting data, and engineered to save data. Conversely, BI applications are engineered to retrieve data and data visualization. Having BI only will not generate data and having ERP only, will not give actionable information.

Numerous enterprises have invested in applications such as ERP, CRM, SCM, HRM, etc. to automate the business transactions and processes of their operations. On the basis of their business needs in their industry, organizations implement such solutions (SAP, Microsoft Dynamics, Oracle E-Business Suite, PeopleSoft, JD Edwards, Siebel, Microsoft Navision, QAD MFG/PRO, RAMCO, Tally, etc.). The results through such implementations might be excellent from a transaction management point of view and driving down the traditional costs of managing daily business operations. These companies can now look to their investment in transaction applications and the data captured as an asset to support performance management initiatives.

In an ERP system, if required, we can create 500 reports with whatever manpower is needed, however, the question is how the business user will maneuver across these 500 reports from a given menu which becomes too clumsy. On the contrary, with BI, 10 fields in 1 cube, a maximum 550 reports can be generated with all permutations and combinations. There are a number of possibilities with multiple fields. Additionally, all these reports are available with a do it yourself interface for a business user.

Rule 5: Get the analysis of your data done in-house

Do not outsource reporting and analysis to a third party. It should be a part of daily use and not just a quarterly or yearly report submitted by a third party. Develop and implement the reporting and analysis system in-house and roll-out the same for all the business users of your enterprise.

BI is different to general IT projects and necessarily requires a closeness of business and IT relationships to be effective. In most cases, outsourcing arrangements may not work and could be a reason for the failure of a BI project.

Apart from that there are several other issues in outsourcing the reporting and analysis to a third party such as security in terms of financial data which is market sensitive and there may be concerns over trusting an external provider with both producing this and ensuring that it remains confidential until market announcements are made. This does not mean that the providers are unethical, just that companies may not wish to take a chance in this area.

Among others disadvantages in outsourcing BI, there are the complexities of data management, as mentioned above there is the confidential nature of the insight BI offers. Given the ad-hoc capabilities of BI, the business analysts must be in-house to perform sophisticated ad-hoc analysis—people that are intimately familiar with business and play an active role in it.

Many a times, if BI initiatives are not working well, managers may believe that they can fix the problem by hiring an outsourcer that they expect will do a better job at a lower cost. Here the verdict is clear that most of the organizations prefer in-house BI or MIS competency.

Remember the golden rule of outsourcing—outsource only those things that are not a core business. Business strategy formulation and feedback on its results must be a core competency.■

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