The Role of Governance in Digital Reporting

In today’s environment, decision-making has become more challenging than ever, and the ability to adapt is vital. The availability of real-time digital reports allows management to form strategies and adjust them to meet changing conditions. The foundation of such decisions, however, is the quality of the information produced and published in such reports. It is imperative that reports convey information that can drive the enterprise’s objectives and actions in the right direction.

Compiling a report can be a daunting task, requiring the consideration of many factors before a final report is designed, developed and published. Compared with conventional manual reports, which are generally tied to a specific purpose such as the reporting of inventory, sales or fixed assets for a certain period, digital reporting allows the integration of multiple variables into a kind of digital dashboard, providing stakeholders with a comprehensive view of what is going on in the enterprise (figure 1).

The obvious benefit of this type of digital dashboard is flexibility. In this example, it provides the overall number of incidents in each domain and divides them into critical-, high-, medium- and low-priority categories. This enables stakeholders to understand the magnitude of the problems identified and to allocate appropriate resources to address them. Similar dashboards can be conceived to track division profitability and inventory levels of aging fixed assets, which can address liquidity status.

One of the biggest advantages over manual reports is that digital reports can be linked to an auto-refresh function (figure 2). Such auto-refreshes can be performed in real time, for example, every hour or every day, depending on needs.

There are various factors that go into the development of a digital dashboard. These factors require the involvement and expertise of key personnel across the enterprise, in addition to the development team, which is typical of any management project. This complex development process can best be addressed by a robust governance process to ensure consistency and clarity for everyone involved.

Broadly, governance refers to the initiative to create and enforce a set of rules and policies related to a particular aspect of the enterprise. In an environment where reporting is manual, additional controls are required, primarily to limit access to data, manage how data are maintained and ensure that any changes to existing reports are approved by the appropriate authorities. In a digital reporting framework, these controls are built in, based on preapproved rules, and they can be monitored through a review of logs at predetermined intervals.

Rajul Kambli, CISA, CMA
Is a business insight manager with Schlumberger and has more than 17 years of experience in global accounting, planning, budgeting project management, and financial and systems audit. Currently, he is managing a digital reporting initiative. Prior to this, he had been part of the global transformation team, conducting review and gap analysis, optimization, process improvements, and readiness assessment to deploy SAP. He has also served as finance controller for various verticals—driving compliance, liquidity generation and advising on effective cost management to business partners.
Governance clarifies each of the factors involved in developing a digital report (Figure 3) and it ensures that all the vital steps are followed. It is also helpful to provide timelines for each step as part of project management.

In addition to governance, stakeholders play an important role in reporting. Stakeholders are groups of individuals representing different functions in an enterprise; they can include people consuming the report to make informed decisions; people affected by the decisions made; and people involved in the process of development, design, training and change management. Relevant stakeholders depend on the nature of the report being developed. For example, a report on vendor statistics would be relevant to stakeholders in the supply chain, procurement and finance.

Data

Data are any raw, unorganized facts that need to be processed. Data are the basis of any report, whether digital or nondigital. However, one of the biggest challenges is determining which data are necessary.
Data Variables
Data availability is not necessarily a challenge, but collecting the right data can be. Ascertaining which data variables need to be included in a report can entail discussions across multiple groups.

Figure 4 provides an example of the amount of data available from a single purchase order—more than 90 field variables. When compiling a report to analyze open purchase orders, not all these data would be relevant.

Data Sources
Enterprises typically generate data in one form or another throughout the organization. For instance, data relating to vendors might exist in both the supply chain procurement system and the finance system. To create a meaningful report, both types of data would have to be integrated. For example, the number of purchase orders placed with vendors would be available through the procurement

<table>
<thead>
<tr>
<th>Fields</th>
<th>Fields</th>
<th>Fields</th>
<th>Fields</th>
<th>Fields</th>
<th>Fields</th>
<th>Fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO Number</td>
<td>Company Code</td>
<td>Sales Order Number</td>
<td>Cart Number: Created By</td>
<td>Stat. Del. Date</td>
<td>G/L Account</td>
<td>Latest PO Approval Date</td>
</tr>
<tr>
<td>PO Line Item</td>
<td>Item Category</td>
<td>Sales Document Item</td>
<td>Cart Number: Created By (Text)</td>
<td>Plant</td>
<td>GL Account Description - Short Text</td>
<td>Confirmation Delivery Date</td>
</tr>
<tr>
<td>PO Document Date</td>
<td>Item Category Description</td>
<td>Valuation Class</td>
<td>Shopping Cart – Buyer Name</td>
<td>Plant Name</td>
<td>SLB Vendor Category</td>
<td>Effective GR Qty</td>
</tr>
<tr>
<td>PO Created by Name</td>
<td>Material</td>
<td>Valuation Class Description</td>
<td>Purchase Requisition Number</td>
<td>Storage Location</td>
<td>Main Vendor ID</td>
<td>Effective GR Amount in Local Currency</td>
</tr>
<tr>
<td>PO Document Type</td>
<td>Material Short Text</td>
<td>Acct Assignment Cat.</td>
<td>Requisition Item</td>
<td>Incoterm Line</td>
<td>Main Vendor Name</td>
<td>Open GR Amount</td>
</tr>
<tr>
<td>PO Document Type Description</td>
<td>Vendor Material No.</td>
<td>Acct Assignment Cat. Description</td>
<td>Requisition: Created on Date</td>
<td>Incoterm Line Location</td>
<td>OA Vendor ID</td>
<td>Local Currency (GR)</td>
</tr>
<tr>
<td>Incoterm_Header</td>
<td>Net Price Per Price Unit</td>
<td>Cost Center</td>
<td>Requisition: Created By</td>
<td>SRM Shopping Cart Number</td>
<td>OA Vendor Name</td>
<td>Effective GR Amount in Document Currency</td>
</tr>
<tr>
<td>Incoterm Header Location</td>
<td>PO Requested Quantity</td>
<td>Profit Center</td>
<td>Requisition: Created By (Text)</td>
<td>SRM Shopping Cart Item</td>
<td>PI Vendor ID</td>
<td>Document Currency (GR)</td>
</tr>
<tr>
<td>PO Header Currency</td>
<td>Order Unit</td>
<td>WBS</td>
<td>Requisition: Creation Indicator</td>
<td>Sum of SRM Shopping Cart Number: Created on Date</td>
<td>PI Vendor Name</td>
<td>Quantity Still to Be Delivered</td>
</tr>
<tr>
<td>PO Requested Delivery Date</td>
<td>Net Order Value</td>
<td>P&amp;L Account</td>
<td>Requisition: Creation Indicator (Text)</td>
<td>PO Release Status</td>
<td>PO Release Indicator</td>
<td>“Delivery Completed” Indicator</td>
</tr>
<tr>
<td>Effective Invoice Amount in Document Currency</td>
<td>SCCode</td>
<td>GeoMarket</td>
<td>Category</td>
<td>First PO Approval Date</td>
<td>Requires Approval</td>
<td>Effective Invoice Qty</td>
</tr>
<tr>
<td>Document Currency (IR)</td>
<td>Commodity</td>
<td>Sub-GeoMarket</td>
<td>Sub Category</td>
<td>Family</td>
<td>Country of Ordering Plant (Destination Country)</td>
<td>Effective Invoice Amount in Local Currency</td>
</tr>
<tr>
<td>Material Group</td>
<td>Old_STCode</td>
<td>Sub-Product Line</td>
<td>Area</td>
<td>Region</td>
<td>Group</td>
<td>Open IR Amount</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Product Line</td>
<td>Local Currency (IR)</td>
</tr>
</tbody>
</table>
system, but the value of invoices paid would come from the finance system. A report based solely on either procurement or financial data would provide decision makers with an incomplete analysis.

### Data Modeling

When data are processed, organized, structured or presented in a given context to make them useful, the result is called information. Data modeling refers to this process of structuring data to provide the necessary information for a digital report. **Figure 5** provides a good example of data. However, it conveys no meaningful information that could be used for analysis and decision-making.

When the same data are processed (**figure 6**), various types of information are conveyed:

- **Total sales by month**
- **Comparison of sales by month (e.g., March sales were half of those in January and February)**
- **Sales by client, by month, by revenue and by product**

Such reports allow an analysis of trends and can help decision makers take the necessary action. For example:

- The drop in sales in March can be attributed to United Hospitality.
- Toys continue to be the most popular product.

Data mining (techniques that find patterns in large data sets), data modeling and connecting source data to published data require a standardized approach and constitute an integral part of the governance process.

### Presentation

Presenting reports in tabular form is the most common presentation approach, but with many advanced tools, a combination of visuals and data is enjoyable.
possible. However, designing this type of report often requires many iterations and can be time-intensive. **Figure 7** presents a snapshot of a brainstorming workshop to design and develop a single report to meet various stakeholder requirements.

**Figure 8** provides an example of a digital report that blends visuals and data.

**Development**

Once the preliminary requirements related to data, visuals and parameters have been finalized, development of the report is the next step. The developers who configure the report are not expected to be functional experts in the field to which the report relates; therefore, expected results need to be clearly defined. An agile framework to monitor report development at predefined milestones is recommended so that any necessary corrective action can be taken and delays can be minimized.

**User Acceptance Tests (UAT) and Access and Security**

One of the earliest opportunities to test the report and gain firsthand feedback is through user acceptance tests (UATs). A successful UAT includes the following elements:

- Appropriate number of testers who are representative of actual users
- Correlation of testers’ profiles with the complexity and sensitivity of the data and the magnitude of the report within the enterprise
- Specific time period for testing to take place
- Use of constructive feedback to add to or amend the report before it is distributed to users

Data and information are central to any enterprise. When a report is created, who will have access to it and how that access will be controlled are important considerations. There may be both internal and external requirements, such as statutory provisions or mandatory fiscal filings. In addition, laws such as the EU General Data Protection Regulation (GDPR) require that data confidentiality be maintained, and an enterprise that fails to do so could face serious financial and reputational damage.

One way to control access to reports and information is to link access to job codes and job areas through identity access management. This is considered the best practice to ensure that access is limited to those with a need to know.

Also, a review of access logs at regular intervals, such as monthly, quarterly or semiannually, depending on the sensitivity of the information, is a common practice to ensure compliance.

**Change Management**

One of the most difficult challenges can be resistance to change. The magnitude of resistance depends on many factors, and in the case of digital reports, the reasons might include the following:

- Reluctance of current users to use digital reports
- Preference for current users to use digital reports

**Figure 7—Brainstorming Workshop**

- Elimination non-value-add analysis and investigation of nonmaterial items, while still providing necessary insight into the business
- Standardization of analysis across business area and units
- Transition to a more strategic analysis methodology with a focus on highly impactful items
- Understanding critical requirements from key stakeholders’ point of view
Considering that the digital reporting system affects individuals across the enterprise, it is vital that all staff members buy in to the new system. Change management workshops may be useful, depending on the nature and complexity of reports. Multiple sessions may be required not only to gain acceptance, but also to ensure that people are comfortable accessing and interpreting reports in digital form.

**Deployment and Feedback**

Critical elements in the deployment of a digital report include:

- User access list
- Due diligence related to connectivity and configurations
- Regression testing and stress tests on load and performance issues

Once these technical aspects have been handled, it is important to consider the usage frequency and the number of users accessing the report compared with the original user list. This can provide the acceptance ratio and the value added throughout the enterprise.

Finally, formal user feedback, in the form of surveys, should be used to determine how the digital report could be enhanced to add more value.

**Conclusion**

Certainly, the information contained in digital reports and manual reports should be the same. However, considering the dynamic nature of real-time information, the use of a digital dashboard with multiple key drivers, data integrity through connectivity to source and efficiency through automation can all lead to benefits for an enterprise.

Only a well-defined and robust governance model can aid in the transformation of raw data into information, stimulating action from stakeholders. An effective governance process identifies various factors in the development cycle, defines the process, and determines the roles and responsibilities of various people. Enterprises with flexible governance processes will be able to adapt not only to a changing external environment, but also to new technological developments.