

REPORTING VS BUSINESS INTELLIGENCE

A White Paper for Microsoft Dynamics customers

INTRODUCTION

- 03 RELATIONAL REPORTING
- 05 BUSINESS INTELLIGENCE
- 09 TYPICAL CHALLENGES OF BUSINESS INTELLIGENCE
- 11 CONCLUSIONS

This white paper aims to distinguish the difference between relational reporting solutions and business intelligence (BI) solutions, to help Microsoft Dynamics® users understand the difference in commercial benefits that each provides.

There is a wide array of solutions available in this particular market that may at a glance appear similar, but which have significant differences in terms of capabilities and technical approach. It's important to understand these differences in order to ensure you select the best technology to meet your organization's needs.

RELATIONAL REPORTING

Most Microsoft Dynamics customers are familiar with reporting. Users have the ability to produce reports directly from Microsoft Dynamics itself or utilize a reporting tool, both of which often require a skilled staff member or a contractor to compile the reports. These reports (which may be described as operational reports, relational reports, flat reports, or list reports) are typically distributed daily, weekly, or monthly – providing staff with the same information on a regular basis. Common types of reports include billing payment history, sales orders, and sales pipeline reports. Microsoft Dynamics customers use relational reporting to deliver information. For many companies, relational reporting is all they know. So what are the issues with this approach? Here we outline typical challenges faced by users and consumers of relational reports.

3

Expensive and time consuming

Whether through an internally hired resource or outsourced contractor, report writing requires technical skills that cost by the hour. In any fast-paced organization, information needs are dynamic, resulting in frequent changes for any fixed report structures. This results in delays and associated costs as deep programming skills are needed to create multiple reports to keep up.

One Canadian Microsoft Dynamics NAV customer explained:



Every time a new product was added or a new category was set up, it became difficult to work with NAV reports, including having reports fail. Developers had to make constant adjustments, and when a new report was required, that was an instant \$1,500."

Blair Fleming, Natura World

Users resort to offline spreadsheets

When reports are rigid and marred by delays and costs to make changes, users often resort to exporting data to offline spreadsheets that are not connected to the corporate data source. This causes other problems, most notably data discrepancies and errors. Disputes around data validity can arise when users have conflicting versions of the truth caused by data pulled from corporate systems at different times and potential errors during data manipulation.

Limited insights

While reports can provide users with critical information necessary for decision making, they are often lengthy and difficult to understand, due to the amount of detail they contain. The rapid proliferation of data in business today can leave organizations struggling to cope with the sheer volume of transactional data they accumulate, and subsequently report on at length. This can lead to staff skimming or even ignoring reports, because they simply don't have the time to wade through the masses of information provided to find what they want to know. Traditionally, reports only tell you WHAT happened – what they don't tell you is WHY. Imagine if your sales manager notices an issue, such as sales of a certain product suddenly dropping. The process to find out why is then completely manual – maybe more reports have to be written, or regional managers need to be called. The sales manager has no way to interact with the data to discover instantly the causes of the issue. In circumstances such as this, reports don't meet the needs of companies wanting to remain competitive, agile, and alert to new opportunities and ways to improve.

4

Organizations need to transform transactions into an even more powerful asset – real intelligence and insight. Looking at the same reports over and over does not foster a culture of proactive management and continuous improvement. Users need to be empowered to look beyond standard reporting, and be able to proactively interrogate data to uncover the valuable insights that may be hidden within. As one Microsoft Dynamics CRM customer in Asia said when comparing standard relational reports to those produced by a business intelligence solution:

“We had been using static forecasting reports and reporting in the same way from the same perspective for a long time. But with Business Analytics, I immediately came across problems that I didn't know existed. A single report in Business Analytics exposed holes in the way I had been analyzing sales, in particular that some longer term forecasts were inflated by redundant data.”

Erya Houn Houn, First Cambodia

This brings us to business intelligence.

BUSINESS INTELLIGENCE

The fundamental difference between reporting and business intelligence is the ability to interact with the data– to perform multi-dimensional analysis that provides meaningful “business intelligence” that will support decisions and strategy. The main commercial benefit this provides is SPEED TO ACT – to identify and respond to changes in the economic, competitive, technical and financial environment. This agility can become a unique competitive advantage as companies of all sizes struggle to survive in a constantly changing world.

Business intelligence provides a completely different approach to using and navigating corporate data – one that is focused on proactive management through setting goals and monitoring outcomes. Capabilities include:

- **Key Performance Indicators (KPIs) and scorecards** – are used to set goals, make them visible, monitor performance, and provide alerts when performance does not match expectations.
- **Analysis** – when a problem occurs, ad-hoc analysis can be done instantly to identify where the problem is occurring so that remedial action can be taken.
- **Dashboards** – are used to gain a fast, visual overview of performance. They can be sliced and filtered to explore data and understand what variables are impacting performance.
- **Reports** – add the lowest value within a BI solution in terms of providing drill down information to granular or transactional data if this level of detail is required.

KPIs and Scorecards

Key Performance Indicators (KPIs) and scorecards help organizations actually reach their goals, by monitoring the performance of everything that is important. A business intelligence system can help a company monitor every single outcome and process to accepted levels or thresholds. As soon as any of these expected outcomes or processes falter, a business intelligence solution alerts a company to take immediate action.

For example, service quality can be improved greatly if on-time deliveries by both distributors and suppliers are monitored and flagged the minute they fall short of expectations. When companies don't already use KPIs, it can seem a daunting process to develop the right metrics that will help improve performance. But it doesn't have to be hard, as your existing reports will tell you what's important to measure. For example, take a look at your current reports at the row and column level, and examine the acceptable thresholds of performance at data level or summary level.

6

Example: A large retailer monitors delivery performance of its suppliers. If the agreed delivery performance by each distributor is three days, then this metric is already set. Using a business intelligence system, if there is one distributor whose deliveries take 4.5 days, the retailer can easily identify other distributors whose performance is above the acceptable threshold, and restructure the supply chain.

KPIs can be at both micro and macro levels, and because of this, can sometimes appear to be in conflict. For example, a salesperson needs to hit sales targets for a current market, but is also expected to do business development work in a new market that will not bring in immediate revenue. Monitoring these goals and objectives can be a challenge unless they are carefully communicated, managed, monitored and rewarded. Teams must have a clear view of the macro goals they are contributing towards.

A business intelligence solution is fundamentally designed to allow business users to create KPIs to monitor goals, and roll the KPIs up into scorecards that provide an overview – this can be at individual, departmental, workgroup, divisional or company level. Combining KPI capability with alerts when performance differs from expectations allows you to manage performance in a very proactive way. Alternatively, a report writing tool only provides static information.

Analysis

When a particular outcome or process is not meeting the expected performance levels, analysis is required to understand why this has happened. Business intelligence is optimized for querying the data, commonly via OLAP, which stands for online analytical processing. OLAP technology presents information in a format that provides more powerful analysis capabilities than a reporting tool. Traditionally, analysis using a relational reporting tool requires a lot of programming, or exporting to a spreadsheet and developing pivot tables. This time consuming process requires technical skills, thereby preventing instant analysis. It also exposes the company to considerable risks when users manipulate data in unsecured spreadsheets. Effective corporate analysis must be based on a single source of the truth.



For a business intelligence user, analysis is an instant, simple process because data is already stored in a format optimized for querying.

A good BI solution should have a user-friendly interface that doesn't require technical skills or programming, and as such, a BI user can immediately determine the causes for a certain result – by asking any question at any time, and exploring data from many different perspectives using filtering, drilling down, slicing, and dicing. Good BI solutions allow you to navigate your data on the fly, and find answers to even the most complex questions, without having to write new reports. Once again, business intelligence provides users with the ability to make good decisions quickly, providing a SPEED TO ACT advantage.

Dashboards

Dashboards are a collection of analytics that are composed into a unified display to provide an instant visual picture of performance. For instance, a dashboard might contain an analysis report, KPI, and a scorecard. Dashboards can be filtered and sliced in various ways to help users explore the data. Specifically in the area of financial performance, many leaders struggle to communicate financial performance to others who are not experts in the field, and may be too busy to review detailed financial reports. A dashboard enables data to be communicated visually and quickly. CXOs in particular often use dashboards to gain a fast, overall view of performance from many departments.

Dashboards provide real estate for your corporate data. Smart use of this real estate gives a user maximum information on multiple subjects at a glance.

Therefore, usability of creating dashboards contributes significantly to an individual's ability to produce highly relevant dashboards that will aid decision-making.

Dashboards are a key differentiator between reporting tools and BI solutions, and should be easy to generate so that business users can create their own customized dashboards.

Reporting

Today, a business intelligence user and a relational report user are at similar levels of technology competence when it comes to consuming reports. It is therefore of greater significance that reports can be easily created, understood and consumed by even the least technical user in an organization.

Reports provide lists of data about transactions that have occurred, and offer the lowest level of data granularity. They are excellent for verification purposes, but are not well suited for analytical or decision making purposes.

8

BI solutions should offer the following benefits over reporting tools:

Reducing time and costs

By removing the reliance on technical staff to produce reporting, this function can be done by business users – the people who actually know the data, and understand what they want from it. This makes reporting faster, more flexible and more responsive. By empowering everyone to produce reports, bottlenecks are freed, and your technical staff have more time to focus on other duties. No longer should reports mean an instant addition in costs because you have to pay a specialist (be it an external report developer or an internal employee) to write or change them. A good BI solution should also allow ongoing customizations in Dynamics to be instantly reflected in reports and analysis. Again, if this requires time-consuming manual tasks performed by technical experts, it will result in bottlenecks and a less-than-satisfactory user experience.

Catering for management reporting

Management reports, such as board or monthly management reports, are typically produced on the desktop using multiple offline tools, such as word processing and spreadsheet packages. The margin for error is great, particularly when data is taken out of business systems and manipulated in spreadsheets, and it is difficult for teams to collaborate. A BI solution should provide a means for geographically dispersed teams to work on management reports together, drawing reports and analysis directly from the source system, and producing a PDF so the output that can be distributed easily.

TYPICAL CHALLENGES OF BUSINESS INTELLIGENCE

If BI solutions offer such advantages, why doesn't everyone use them? The simple answer is RISK. Deploying BI using conventional methods exposes a company to considerable risk due to the time involved in implementing BI, and the technical resources needed for deployment. Here we outline typical stumbling blocks and what to look for when evaluating a BI solution.

The Back End: Data Structures

To achieve ongoing performance monitoring (KPIs) and analysis capability, the greatest challenge is to have the data available in a format that is optimized for business analysis. Transactional tables typically used for relational reporting (rows and columns) are well optimized for capturing data and processes. However, the row and column table structure does not allow easy query of the data. On the other hand, a data warehouse and OLAP cube (multi-dimensional data) is designed exclusively for ad-hoc business analysis and monitoring.

9

It is imperative that the BI system supports the business logic of how transactions are treated in the underlying business system. If the BI system does not do this, incorrect results will be returned. It is also important that the BI system can easily adapt to new business logic that might be adopted in the future as the business changes.

The effort needed to build a comprehensive data warehouse, OLAP cubes, and reports MANUALLY on a moderately customized Microsoft Dynamics application (assume 20% customization) can require months of development work if you select a solution that relies heavily on manual processes to build the back end of the solution. The ongoing maintenance of the BI solution in this instance would also require deep technical expertise and significant time.

Questions to ask when evaluating the back end of a BI solution:

- How easily and quickly can the back end data structure be developed to deliver a comprehensive BI solution across all subject areas in your ERP or CRM system?
- What is the depth of technical skills required to deploy the solution?

- How much technical expertise is required to maintain and make future enhancements to the BI solution?
- Will a BI solution be created that is unique to your organization and your individual BI needs? For example, will all your Microsoft Dynamics customizations be available for analysis?
- How flexible is the BI solution on an ongoing basis? Can you change it to suit your organization, departmental and individual user needs?
- Is the BI solution based on industry standard technology, or is it 'black box' proprietary technology?

The Front End: Analytics Interface

10

Typically, the burden of producing reports and analysis for Microsoft Dynamics users falls on the IT department, as specialist technical skills are required to produce the end result. This task takes considerable time, typically hindering other time-sensitive responsibilities of the IT department. Users who bypass the IT department and export corporate data to spreadsheets expose the company to data discrepancies and risks.

A BI solution should eliminate this tedious work and corporate risk, and allow IT departments to focus on more important challenges and strategy.

Questions to ask when evaluating the front end of a BI solution:

- Can business users easily generate their own KPIs, scorecards, analysis, reports (including management reports and report scheduling), dashboards, and alerts – without specialist skills or any programming?
- Is the front end of the BI solution easy to maintain, so that the IT department is not burdened with maintenance and support? For example, a browser-based, zero footprint BI application is easier to maintain and support compared with a BI solution using a client-server architecture.
- Is the solution easily consumed from or integrated with other Microsoft technologies, such as Outlook, SharePoint and Microsoft Dynamics CRM and NAV?
- Can existing Reporting Services reports be called and for users to filter them dynamically using the BI solution?

CONCLUSIONS

A reporting tool and a BI solution are very different. Reporting tools provide information, whereas BI solutions provide insight, and the ability to monitor and manage performance. Companies with a BI solution gain a SPEED TO ACT advantage, can reduce costs and improve performance management, as they manage their business proactively.

In today's environment, change is the only constant. Remaining proactive and agile is a unique competitive advantage in itself, and one that business intelligence enables. It's not just survival of the fittest, but also survival of the quickest. If you can beat your competitor to take advantage of a new trend, or set strategies to ward off an impending downturn, you're already one step ahead. The question is not so much can you afford business intelligence, but can you afford to be without it?

For more information about Zap Business Intelligence for Microsoft Dynamics CRM, NAV and AX solutions visit www.zaptechnology.com

