

Whitepaper: Business Intelligence In The Modern Finance Department

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Business Intelligence in the Modern Enterprise

Modern businesses produce data in staggering amounts, but there is a huge disparity between what is created by a business and their analytics capabilities.

Even today it is common for people from different departments to turn up at meetings with conflicting data derived from the same source. Which leaves business leaders unable to figure out the truth and struggling to make decisions.

As organisations try to address this, some end up drowning in spreadsheets and manual processing, while others invest millions on huge and expensive BI installations to gather all business information together into a data warehouse or data lake.

This latter approach solves the problem of handling large amounts of structured and sometimes unstructured data, but it creates massive and cumbersome reporting environments, which makes businesses slow to react to changing reporting needs. Indeed, <u>CIO.com's Opinion Piece</u>* (4 reasons most companies fail at business intelligence) reports that Gartner claim between 70%-80% of corporate BI projects fail to deliver the benefit sought. Our opinion has shown some even fail to complete at all.

Over the years, the BI pendulum has swung back and forth from centrally managed reporting functions; to a distributed approach where end users analyse their own data which provides faster and more agile reporting.

The middle ground - where data is centrally managed and governed, and yet individuals can use local tools to generate appropriate outputs in their own time - has proven to be an elusive goal for most organisations.



An Interesting Exception

While all this is going on, keen-eyed observers, and those who have had to manage large-scale BI projects will notice that the finance department, which on the face of it seems an ideal customer for clean, well-governed, centralised data and preconfigured reports, often manage to avoid the whole initiative.

The reason for this becomes clear once you dig into financial reporting requirements

and see how different they are to classical operational reports. Financial reporting is much more specialised.

Many finance teams learn the hard way after a BI implementation has been thrust upon them and mandated by the Board. But experienced CFOs know the issues, and in one case that we observed, the finance team surprised the project manager by happily agreeing to move their reporting requirements to the back of the queue, to be addressed "*in phase 2*". Several months later, when the project manager tried to pick-up the finance reporting needs, they could not find any time when the finance team weren't "*too busy with monthend*" or "*in the middle of audit*" so could not get involved.

Experienced BI professionals know that financial reporting needs are best solved by specialised financial data analysis and reporting platforms like ORYX, and not through a classic BI platform. There are several reasons for this, as explained further below.

Classic Operational Reporting

Operational reports are established to present relevant KPIs to functional managers and business leaders so that they can easily monitor and evaluate the performance of some operational aspects of their business.

These reports typically use current data gathered over the course of a week, month, or quarter to calculate KPIs and may potentially offer a year-on-year comparison to give a historical context to the measure. Examples are:

- Marketing: CPC (Cost-per-Click)
- Marketing: CPA (Cost-per-Acquisition)
- Retail: Order Status
- Retail: Sales by Region
- Human Resources: Absenteeism Rate
- Human Resources: Overtime Hours
- Sales: Lead-to-Opportunity Ratio
- Sales: Lead Conversion Ratio
- Logistics: Delivery Time
- Logistics: Transportation Costs
- IT: Total Tickets vs Open Tickets
- IT: Average Issue Resolution Time

The information presented in the reports is extremely valuable and will drive very real business decisions, but most of these reports are relatively straightforward to produce when compared with financial reports.





The biggest challenge with operational reports is often locating or accessing the data, which can reside in numerous different systems and will likely be in many proprietary formats or schemas.

But the primary insights sought by business managers are usually KPIs showing whether the trends are positive, negative, or different to the norm in some way that needs to be acted upon.

Visualisation techniques such as charts and trend analysis provides a ready way for managers to see this, and it is this combining of raw data into visually

accessible KPI information that is the major strength of most BI implementations.

Once operational managers see the value of this, the BI or reporting function will likely have a long list (backlog) of requests from departments across the organisation for new KPIs and reports. These then must be tackled in a priority order using some sort of business case evaluation of ROI. But for finance it is different.

Challenges of Financial Reporting

The standard finance outputs are Balance Sheets, Income Statements and Cash Flow Statements of which the most widely used is probably the Income Statement as it illustrates a company's profit and loss over a period. The profit or loss is determined by taking all revenues and subtracting all expenses from both operating and non-operating activities.

On the Income Statement:

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- 1. Both revenue and expenses need to be displayed as positive numbers, although expenses are negative in the source data.
- 2. Because the signage of the data has been modified for financial presentation, simple column summation can no longer be used, and logic needs to be added to calculate the correct final figures.
- 3. Analysts need to be able to compare budget versus actual. But also need the flexibility to choose which budget to compare with.
- 4. Variances need to be displayed to summarise both the rows and the columns. And again, as all numbers are positive these need to be manually calculated and cannot use standard summation.
- 5. In some cases, positive variances need to be treated as favorable and in other cases they need to be treated as unfavorable.

- 6. Analysts need to be able to slice and dice the whole report by product, department, business unit, geography, and any other dimension of the business.
- 7. Formulaic cells need to be added to the reports and automatically calculate changes. For example, sub-totals and reconciling checks.

Company XYZ Income Statement For the year ended 31st December 2019							
Revenues \$2,000,000							
Total revenue	\$2,000,000						
xpenses							
Cost of goods sold	700,000						
Advertising	60,000						
Depreciation	40,000						
Rent	80,000						
Payroll taxes	56,000						
Salaries and wages	800,000						
Supplies	64,000						
Travel and entertainment	100,000						
otal Expenses	\$1,900,000						
let Income	\$100,000						

Any BI reporting analyst will see straight away when presented with this list of requirements, that one of the main benefits of BI - which is the visualisation of data and the illustration of trends, metrics and KPIs - is not the major requirement for the finance team. Indeed, the finance team really need access to a comprehensive reporting tool of their own.

That is not to say there are no financial KPIs. Far from it, there are many such as:

Earnings Before Interest and Taxes (EBIT), Economic Value Added (EVA), Liquidity Ratio, Days in Accounts Receivables, Net Cash Flow, etc.

For finance however, it is the numbers and the ability to analyse them through drilldowns, slice and dice capabilities, actual vs plan comparisons and scenario comparisons that are the real power requirements.

Data Difficulties

In most organisations the data for the Income Statement comes from several different sources and operational data stores including:

- General Ledger
- Planning/Budgeting solutions
- Spreadsheet-based budgets
- Data Warehouses
- Operational Systems
- ...and others

For medium to large businesses, the number of data items that need to be extracted and processed for the Income Statement can easily be tens of thousands (even many millions in large companies) and few of these systems will keep the data in the correct positive and negative signage format to suit the reporting process.

Also, all the data will need to be preprocessed, aligned, and transformed to ensure it maps accurately onto the reporting dimensions before it can be used.

What Does ORYX Do To Make This Easier?

As illustrated above, BI reporting tools provide limited benefit for finance reporting and we hear time and again stories of reports that simply don't reflect the correct numbers and finance teams reverting back to spreadsheets in frustration.

ORYX is a finance process automation platform designed by an accountant to solve exactly these sort of finance problems, from start to finish.

We help you sort the data:

We know that you need to get your data from many sources, so ORYX provides powerful ETL (Extract, Transform and Load) tools to help you import data and validate it as it loads.

All values that do not match the expected dimensions (eg, a new nominal code) are flagged and you can

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choose to automatically 'fix' it, manually adjust the dimension, or go back to the source data and fix it there as you see fit.

You can perform any computations required using rule sets:

ORYX uses a rules-based approach to enable you to mimic your business logic and generate the final figures you want to see. For example, you can automate your accounting treatments to consolidate and adjust, or you can create specific accounting treatments at month end (Including accruals, depreciation, deferrals and prepayments) and post transactions back into the GL.



ORYX lets you design multiple financial forecasting models to produce predictive rapid scenario planning based on complex calculations and assumptions. It also handles the reconciliation of balances, non-financial data calculations and the calculation of cashflow and revenue and expense allocation matrixes.

Few (if any) BI tools can provide this level of computational power and most expect the finance team to be happy with the data straight from the source systems.

You manage the workflow:

ORYX workflow management tools and collaboration capabilities extend across the platform. This enables each process to have a different owner and reviewer for sign off, which supports SOX auditability.

Collaboration is made easy when data inputs are required, not just from different systems but also across geographies and departments. This way, differences can be resolved between business partners.



Capabilities such as commentary and in-line issue resolution are especially useful features for

allowing users of ORYX to exchange messages and highlight questions with specific items of data to get them resolved effectively and efficiently.

Scenarios and versions:

ORYX enables you to produce multiple versions of your plan or close scenario at either a local user level or as a formal change committed to the central system. This maintains control over the data and allows other users to investigate financial models for insights on how the business could perform better.

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Commissions											
Base Commissions		-27,934,407	-27,934,407		-27,213,875	-27,213,875	-				
Ceded Commissions		90,716	90,716		90,716	90,716					
Net Commissions		-27,843,691	-27,843,691		-27,123,158	-27,123,158					
Premium Taxes											
Total DAC											
Gross DAC on Commissions		13,711,706	13711.706		13.358.030	12.761.869	-596.161	4.463			
Gross DAC on Premium Tax		-	-		-	-	-				
Gross DAC on Expenses	-		-								
Ceded DAC on Commissions		-83,157	-83,157		-83,157	-75,597	7,560	9.09%			
Net change in DAC	-	13,628,549	13,628,549		13,274,873	12,686,272	-588,601				
Underwriting Expenses											
Direct UW Expenses	-99.750.000	-8.230.505	91,519,495	91.75%	-9.609.316	-8.552.316	1.057.000	11.00%			
Indirect Expenses		-389,549	-389,549		-412.037	-412.037					
Claims Allocation											
Internal Cost Allocations	-				-	-	-				
Total Underwriting Expenses	-99,750,000	-8,620,054	91,129,946		-10,021,353	-8,964,353	1,057,000				
Underwriting Gains (Losses)	-99,750,000	-21,008,187	78,741,813		-22,531,653	-20,281,634	2,250,019				
Investment Income											
Total Other Revenue											
Net Investment Income		1,294,439	1,294,439		1,295,805	1,295,805					
Other Income and Expenses											
Bad Debts Write Offs											
Mgmt Fee Expense			- 1			- 1					
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This scenario planning using the rules-based approach allows you to update your figures. You can compare plans with immediate variance analysis in terms of cashflow, IS, BS or any other format you require to compare your plans.

Late Adjustments:

Another key consideration for finance is the need to adjust the underlying data. Adjustments are usually made at the end of the accounting period or when issues are discovered during the reporting process. Adjustments are made for many reasons including known prior month/year reconciling figures, changes in accounting

treatments, or correcting late journals following ledger close.

ORYX for example has dynamic input cubes where we allow users to adjust data at their required level in a user-friendly way so they can ensure accurate final figures in the reports. Paired with scenario modelling capability, you can assess the financial impact of a potential adjustment easily and quickly also.

Few BI tools support this concept as it means changing the underlying data 'on-the-fly' to insert information not contained in the source system. Specialised finance reporting tools like ORYX directly support this need, and provide a formal mechanism for posting journals of adjustments back to the core ledger to ensure everything stays coordinated for the next period.

Analytics with financial presentation:

ORYX's OLAP cubes allow you to build your own analytics with financial presentation but also have the power to drilldown to any level of detail, filter, raise issues and export to Excel.

Drilldown is extremely useful for investigating what is behind a figure and examine what gave rise to an unexpected variance.

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		11	Miscellaneous		1,518,740	2,118,199	2,123,950	2,211,077	1,765,115		2,508,497	2,357,751	2,450,955	2,587,897	2,163,357	2,780,659		80			
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With the ORYX solution set, you can choose to have Actuals compared to Plan and Budget figures, automatic variance calculations and balancing checks. The ability to build these OLAP cubes and slice and dice the view to your requirements is simple. So too are ad-hoc queries, insightful analysis and bespoke reporting requirements, all of which are easily produced.

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BI tools use pivots or power pivots which can filter the data, but crucially lacks the link back to source data for investigating purposes and cannot prepare cubes in a financial format for reporting requirements.

ORYX can produce detailed reports with multiple tabs, reconciling checks per tab, graphs and visuals for any regulatory reporting needs, audit files or financial statement working papers.

These reports are automatically updated with each scenario.

ORYX maintains a direct link to your data so you know you can trust what you see, and you can export it straight into any reporting or BI tool to enable data visualisation or KPI generation.

Summary

BI tools have their place in the data analytics landscape and can provide powerful insights into operational performance from otherwise incomprehensible volumes of data. Their main advantage is the presentation of KPIs and trends using visualisation techniques like dashboards.

In many cases BI reports are the key mechanism by which operational managers gain any meaningful insights into their processes and are used to drive efficiency and effectiveness improvements.

For finance however it is different. Their data cannot simply be collected and aggregated into KPIs or smoothed over and presented in charts or dashboards. Finance data needs to be selectively extracted from source systems to separate out those transactions which apply to the period under consideration from data that needs to go into other periods. Then the data must be cleansed to remove errors, get the signage and coding correct, and align the dimensions with the reporting structure.

Every item of finance data must be accurate as the resulting outputs (Income Statements, Cash Flow, Balance Sheet) need to be carefully constructed. Errors can be very difficult to detect yet wreak havoc on business decisions and shareholder confidence.

The construction of finance reports requires the input data to be adjusted and amended to get items recognised in the correct period and under the appropriate accounting standards. Any such manipulation of operational data from other parts of the business would normally be considered highly questionable.

Even the physical production of finance reports requires there to be a formal segregation of duties between the preparer and the reviewer. Similarly, with other financial processes, which require a complex set of submissions and reviews all carefully segregated.

BI tools have their place and are excellent at what they do, but fall short of the complex reporting needs of finance:

- Operational reports are typically summarising physical or digital processes to illustrate real-world process performance. The data comes directly from the systems involved and requires little or no modification before being processed.
- Finance reports are summarising fiscal performance of a single organisation or group of enterprises. The data may come from several systems and need to be converted into a single currency, have elements removed (eg, inter-company eliminations) or added (eg, adjustments), and have signage and dimensions addressed before even the most basic assessments can commence.
- Errors in operational reports can be a hugely distracting nuisance while they are being tracked down, but are typically internal issues and rarely have an impact outside of the organisation.

• Errors in financial reports can be hard to spot, even harder to track down, and difficult to remedy. Worryingly the reports are almost always published to external audiences and so can have a major impact on the company and the confidence of shareholders if they contain errors.

It is these essential differences that drive finance teams away from BI tools for their reporting and onto formal finance automation and analytical tools like ORYX. A view echoed by Gartner in their research that concluded "*Business intelligence (BI) leaders' failure to deliver expected benefits from investment means business users disengage from the corporate BI initiative to leverage BI and analytics on their own.*" (Ref: Gartner paper "Understanding Why Users Disengage from the Corporate BI Initiative")





Accountagility specifically developed the ORYX solution suite to address the challenges faced in Finance BUs.

Our solutions are rich with practical, efficient features saving up to 80% of time and effort. We align with the Financial Planning & Analysis and Financial Close markets, defined by Gartner; our Planning and Close solutions are available individually, or together on a single platform. ORYX is one of the few solutions offering the benefit of agile planning, and integrates plans versus actuals.

ORYX features include: Agile Financial Planning, Analysis, Forecasting, Reporting, Cost Allocations; Financial Close, and Consolidation of Group Finance information.

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