Apliqo
Intelligent Analytics and Planning

Unified Performance Management as a way to unleash value and drive better outcomes.

Key concepts

- Importance of Performance Management and its impact to value creation
- Misuse of technology leads to unsatisfactory Performance Management solutions
- The majority of the so called Performance Management solutions are actually just Profit & Loss Reporting systems and fail to integrate strategic, financial and operational planning into one coherent loop. Missing out on Cash flow metrics and value creation
- Functional databases are much better suited to perform the task of Integrated planning than relational database systems and common Performance Management solutions offered by most vendors
- The key enabler for a successful roll out is the know-how to properly build a fully integrated business model into a functional database

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Contents

1. Preface

1.1 — My journey as a CFO

Hand on heart, do you believe that your current Performance Management process, system or solution is actually supporting the execution of your organization's strategy throughout the value chain? If you can answer this question positively than you are one of the few that has achieved what is commonly known as "Unified Performance Management". If not, like almost everyone, you are still stuck in what I call the "age of performance darkness". I would even argue that few people really understand the concept of Performance Management over and above Financial Performance, which is why many companies have a very narrow view of their organization's performance.

Why is it so hard to actually achieve what the software industry and many consulting companies have been advertising for years? The new buzz word being "Big Data Solutions" - these shall now apparently solve our problems – but most of the companies are still at square one in the Performance Management process, trying to get data out of their ERP systems and building soon-to-break reports in Excel.

In this White Paper I want to shed some light on how to actually achieve Unified Performance Management (UPM) based on best-practices and my experiences over the last 15 years as a CFO of multi-national companies and a Corporate Finance specialist (Senior Equity Analyst in Investment Banking). Having started my career in finance as Investment Banker I have a strong Corporate Finance background with extensive experience in business modeling, corporate strategy and valuation as well as capital markets.

As CFO, I successfully rolled out SAP ERP in multiple companies and entities and have been exposed to almost every aspect of operational planning and management (demand and supply planning and execution) throughout the value chain. I have also been heavily exposed to a vast number of mergers and acquisitions, not to mention disposal transactions which gave me great insight into Performance Management, due diligence processes, business modeling and analytics.

Together with the respective board of directors I have led the strategy development process of several companies and implemented their Unified Performance Management processes as well as the supporting Business Analytics and Intelligence Solutions.

This experience throughout my career has turned me into a strong advocate for "Unified Performance Management" backed by strong Functional Database technology that allows for complex modeling capabilities.

I hope that my passion for integrated business and financial modeling will help convince you to take a fresh look at Performance Management and help you take a step towards achieving the full integration of entire value chain in your organization.

Daniele Tedesco
CEO, Apliqo

"Most companies are still stuck in the age of performance darkness"

2. The theory of Unified Performance Management

2.1 — What is Performance Management?

Performance Management is something organizations must do to become more successful and stay ahead of their competitors. In fact, managing performance is THE most critical task of any executive or manager, whether it is in small, medium or large organizations. If organizations get it right, their Performance Management processes allow them to define and communicate their strategies, as well as measure, report and monitor progress in order to manage and improve business performance.

Performance Management can basically be defined as a set of management processes, often supported by information technology, that help to improve the strategic decisions people make every day. In the end, it is the quality of those decisions that will separate successful companies from the rest. Performance Management is therefore a term for a set of management approaches that enable organizations to define and execute their strategy, as well as measure and monitor performance in order to inform strategic decision making and learning.

The basic Performance Management model integrates processes for defining strategic objectives, measuring performance, analyzing performance and reporting and reviewing performance - not to mention aligning people and culture. All of these are focused on performance improvement which is the central premise of Performance Management (see Figure below).

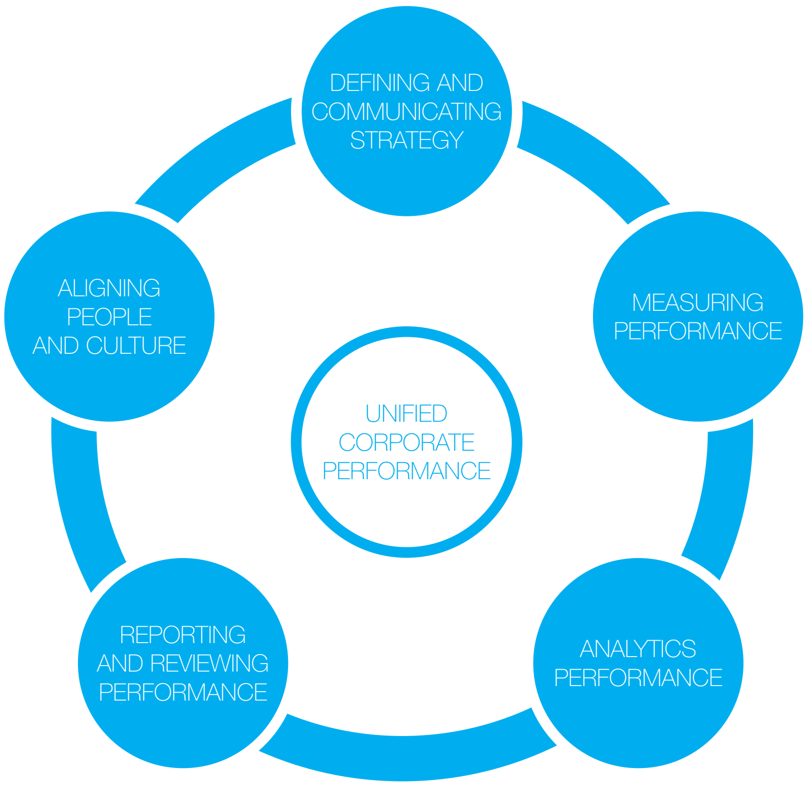


Figure 1
Unified Performance Management model

2.2 — Unified Performance Management - The Concept

Organizations that are serious about managing performance will move beyond the basic model shown in the figure above and integrate it with other key business processes (see Figure 2 - Unified Performance Management framework). In order to gain maximum benefits from performance management initiatives, **organizations need to ensure they align and integrate processes** including financial planning and budgeting, resource planning (capital, people, equipment), operational planning (value chain: customer acquisition/retention, sales, supply and manufacturing, logistics) and risk and value planning (risk management, value based management) as well as business intelligence and analytics.

2.3 — Unified Performance Management - The Basics

Using the basic strategic Performance Management model, organizations start with defining their strategy, then move on to measuring performance, then use these indicators to analyze performance in order to extract insights and make better informed decisions. This leads to actions which enable performance improvements (see Figure 1 - Performance Management model). The following steps are generally applied;

- Strategic planning: This step involves creating a business model (often supported by complex spreadsheet models in Excel) and strategy (either at the corporate level or for a business unit). Key value drivers are identified and a business model is developed and mapped into a strategy. Informed by strategic analysis, organizations identify what strategic objectives they plan to accomplish and how they plan to accomplish them.
- Performance Measurement and Monitoring: Here organizations design key performance indicators ("KPIs") to measure and monitor how well they are delivering on their strategic objectives. Most important is to ensure the metrics are relevant and meaningful. Many fall into the trap of measuring what is easy to measure instead of what will provide the most insight.
- Business Analytics and Modeling: In this step organizations use their performance data and metrics to analyze performance. This step is focused on creating a solid foundation of evidence to inform decision making. Organizations have created huge volumes of data that often are stored in multiple legacy ERP systems and/or other operational systems. By integrating all data sources into one "Trusted Information Hub" the organization can base their decisions on trusted information, which will drive the decision making process. In this step, organizations should not only focus on financial data, but move across the data value chain and integrate operational and other business data (i.e. market data, competitor data, customer relationship data, etc.). The ability to answer the key questions of an organization around specific business problems is core in driving better insight and thus better outcomes. The ability to analyze historical data to answer what is happening and why it is happening are crucial in order to be able to develop flexible scenarios that can derive what is likely going to happen (what-if, predictive analytics, scenario analysis). Powerful and flexible business analytics and modeling solutions can help organizations to get deeper insight and drive better outcomes.
- Reporting and Reviewing Performance: In this step organizations translate the insight gained from their performance information into management reports and dashboards and put the review process in place in order to act. It is all about evidence-based ("Trusted Information Hub") decision making facilitated by the performance review process.
- Aligning People and Culture: In this final step organizations ensure the people, culture and leadership approaches are focused on performance improvement. It is focused on developing the "soft" elements of a high performance organization to ensure Performance Management processes actually lead to improved performance. This means organizations must close the gap between understanding and executing and act on the insight gained in order to generate real performance improvements.

3. Reality check: Capability gap and Excel Hell

In the current business climate organizations are navigating through a series of challenges, both operational and financial. During the last decade's most organizations have installed Enterprise Resource Planning (ERP) systems to make a broad range of management information available to executives and senior management. They have also introduced detailed, multi-year strategic plans (mostly built in Excel), along with balanced scorecards, KPIs, and other best practice planning and performance management approaches.

Although these advances are important, what is still missing is the capability to undertake integrated planning and performance management at the scale, speed and complexity of today's business environments.

3.1 — Why SAP and other ERP vendors can't do Performance Management

Many executives are convinced that implementing SAP or equivalent ERP systems will enable their organization to build a Performance Management system that will drive an integrated planning process throughout the organization. After all this is the sales pitch of the ERP vendors with "integrated" BI and PM. However, the reality is that Relational Database orientated OLTP systems are not designed for these kinds of tasks as OLTP systems fundamentally lack modeling capabilities and further, they typically provide too much unproductive detail which is not helpful for supporting integrated planning. Additionally, ERP systems (especially SAP) require a high level of IT knowledge and thus the involvement of IT consultancies and / or internal IT resources in order to deploy even simple reports. Users in functional departments typically have to explain to these IT people how their business works and what their needs are and still rarely receive what they have requested, generating lots of frustration and the need for self-service reporting. Ultimately, most users give up and start building their reporting and analytics solutions in spreadsheets in order to avoid this crippling dependence on IT.

Michael Hammer, an early thought leader of the 1990s business process re-engineering (BPR) movement, provides evidence of these problems of gaps and misalignment of goals with actions:

"In the real world, a company's measurement systems (often ERPs) typically deliver a blizzard of nearly meaningless data that quantifies practically everything in sight, no matter how unimportant; that is devoid of any particular rhyme or reason; that is so voluminous as to be unusable; that is delivered so late as to be virtually useless; and that then languishes in printouts and briefing books without being put to any significant purpose…In short, measurement is a mess."

Software vendors such as SAP, SAS, Oracle and IBM are focused on selling software licenses by advertising their capabilities around Business Analytics and Business Intelligence that are intended to solve the organizations' Performance Management process problems. All vendors are using the same buzz words and acronyms such as Business Intelligence, Business Analytics, Performance Management (BPM, PM or PM) making it hard for companies to distinguish these solutions. In reality, companies are simply buying technology from these software vendors, which can be valuable and is even quite mature (as these tools have evolved substantially in the last 20 years), but the technology is not solving the core issue which is how to build a SYSTEM that aligns strategy to financial and operational management by aligning all internal resources.

Often software vendors and consultancies will advertise and offer colorful dashboards and scorecards with useless charts such as "gauge charts" as the key benefit delivered to organizations, which have dubious value at best and certainly do not address the key issues of Performance Management. Unless an organization has the ability to replicate it's business model as a whole – throughout the whole value chain – and run sensitivity analysis on all aspects of the business and review, analyze and plan accordingly, it will ultimately fail at delivering a Performance Management system that will work. They may succeed in building performance MEASUREMENT system but not performance MANAGEMENT system. Real Performance Management goes beyond budgeting and measurement vs. budget and needs to include scenario analysis and driver based sensitivity analysis.

3.2 — Companies focus on financial performance rather on corporate performance

In many organizations Performance Management processes and projects are led by Finance departments. CFOs, Controllers and Financial Managers often pursue a standard career path coming from Accounting or Financial Controlling where they mostly focus on profitability analysis, sales performance and expense management. Often their planning and forecasting capabilities are limited to profitability and thus the finance department is not able to answer critical questions around future development and the sensitivity of the balance sheet and cash flow. The reason for this is not a lack of understanding, but a lack of integrated planning capabilities (stemming from an inability of ERP systems to support the process) that would help these organizations to have an integrated view of their corporate performance – from Profitability (Profit & Loss), to Financial Position (Balance Sheet) over to Solvency and Liquidity (Cash Flow).

Pure Financial Performance Management reporting solutions capture General Ledger information, but they often lack modeling capabilities that capture the main value drivers of a company. Therefore they miss out on capturing a clear view of the value chain in addition to internal and external factors (i.e. currency exchanges, competitive landscape, price elasticity, macro-economic indicators, supply chain, etc.). Forecasting a company's profitability, supply and demand requirements, cash generation or capital requirements, distribution of profits to shareholders as well value generation (market value and economic value added) from a corporate aggregated perspective cannot be achieved with such a system. This often leads to the situation where Performance Management systems are used solely by Finance departments which produce reports and analysis that are shared within the organization – reporting mostly historical information which generates little value to the business and poorly links the Performance Management process to the execution of strategy.

3.3 — Companies are trapped in Excel hell

Disjointed spreadsheets have been a well-documented issue for a long time. Excelitis is a serious problem, not only because it involves cumbersome and untimely reporting, but because it denies people a single, unified view of vital data – one version of the truth.

Driven by ERP's inability to deliver a Performance Management solution, most companies still develop their own planning and reporting solutions based on Microsoft Excel.

Users generally build their most complex models in Excel and upload large data volumes from source systems into these spreadsheets to feed custom-made reports and planning applications. Spreadsheets are fantastic, but they simply were not designed to deliver company-wide financial and operational modeling functionalities supported by underlying data coming from ERP systems.

Users are faced with the common frustrations most spreadsheet jockeys must grapple with such as;

- Inconsistency of data based in part on the cumbersome, time consuming and manual process needed to download data from the ERP system
- Lack of transparency due to an inability to "drill-through" from summarized reports to more detail
- Static views of data, rather than dynamic
- Performance issues when using large volumes of data; requiring IT to prepare the data for users
- Inability to run multiple scenarios with a complex model using live data
- Despite the flexibility of spreadsheets, planning and reporting solutions are only high level and disconnected from financial and operational data sources

3.4 — Cross-divisional misalignment through silo-based management approaches

Management makes organizations work – however, more effective management makes organizations work even better. The current dilemma is that not all managers are good managers. Some in fact are pretty poor managers – almost everyone has experienced this. Many managers get it wrong, not because they are incompetent but because they often simply do not have a complete grasp of what they are doing and how what they are doing aligns with their organization's objectives.

Management today remains mostly silo-based and functional, despite all the business literature about process-based thinking and is one of the main drivers for corporate misalignment. A physician would never take a component view of a patient when diagnosing an illness the way managers do of their business. Organizations should view organizational management as a system. By viewing the organization as a system – comparable to a living organism – its managers can comprehensively manage all of the variables of an organization's strategies, measures, organization charts, processes, reward incentives, employee competencies, culture and technologies.

3.5 — Research on performance management after the financial crisis: Key outcomes

In a representative research study on "Performance Management after the financial crisis" published by BARC in September 2011, the research company analyzed a number of companies' status quo, satisfaction and added value of their current Performance Management processes post the Global Financial Crisis ("GFC").

They found that planning, reporting and analytics had increased in importance even more since the GFC. Especially planning, budgeting and forecasting (69 % of respondents) as well as reporting and analytics (60 % of respondents) have increased materially in importance since the GFC.

Companies had higher demands for integrated planning, budgeting and forecasting than ever before. 46 % of the respondents had seen material changes in their planning process post the GFC due to the new need to run multiple scenarios and simulations that could be analyzed and compared easily.

Microsoft Excel is still the main tool used when it comes to planning, budgeting and forecasting. 94 % of the respondents still use it as their main tool; as a stand-alone tool or in conjunction with other Performance Management solutions. Nevertheless, companies that were using Excel as their only or primary tool for planning, budgeting and forecasting were unsatisfied with their processes and were particularly frustrated with the well-documented "Excel Hell".

Planning processes are changing constantly. Almost half of the respondents (49 %) change their planning process every six months, with 36 % changing it within seven to twelve months. 85 % of the companies changed their planning process at least once a year.

Simulation of variables, parameters and structures as well as comparisons of scenarios (90 % of respondents), data-spreading capabilities (83 %) und the usage of Excel as a front-end for Business Analytics solutions (80 % of respondents) were the most important planning functionalities required by companies.

A key insight from the study was that only 4 % of the companies were satisfied with planning, budgeting and forecasting.

The request was for "shorter and faster processes" and "reduction of effort" for this process.

The participating companies were strongly requesting the integration of planning, budgeting and forecasting with Performance Management processes such as reporting and analytics (65 %) or strategy management (53 %).

4. The road towards Unified Performance Management

4.1 — Unleash value in your organization

Striving to develop an Unified Performance Management solution is the ultimate goal for an organization that wants to align its strategy with operational goals and execution. Such a solution is a huge value driver within any company as it helps the whole organization unleash value from a financial and operational point of view; aligning people in the decision making process and having an impact across the whole value chain.

4.2 — What Unified Performance Management is

Unified Performance Management ("UPM") is a **performance framework** that aligns strategic, financial and operational planning into a clearly understood integrated model where the impact of past and future outcomes can be analyzed and planned using root cause analysis. The core of Unified Performance Management is linking all information into one **Trusted Information Hub** so that the whole organization is informed, engaged and aligned on the core value drivers.

Integrated business analytics and reporting tools provide an organization the ability to execute informed, aligned decisions that drive better outcomes.

4.3 — How to put it all together: The UPM Framework

The UPM Framework (see Figure 2 - Unified Performance Management framework) applies the Performance Management process throughout an organization - cross-functional, cross-divisional, and for both short- and long-term aspects of the business.

The key goal of such an approach is the alignment of all organizational resources around the strategic goals and drivers of the organization via integration of the various performance frameworks described below.

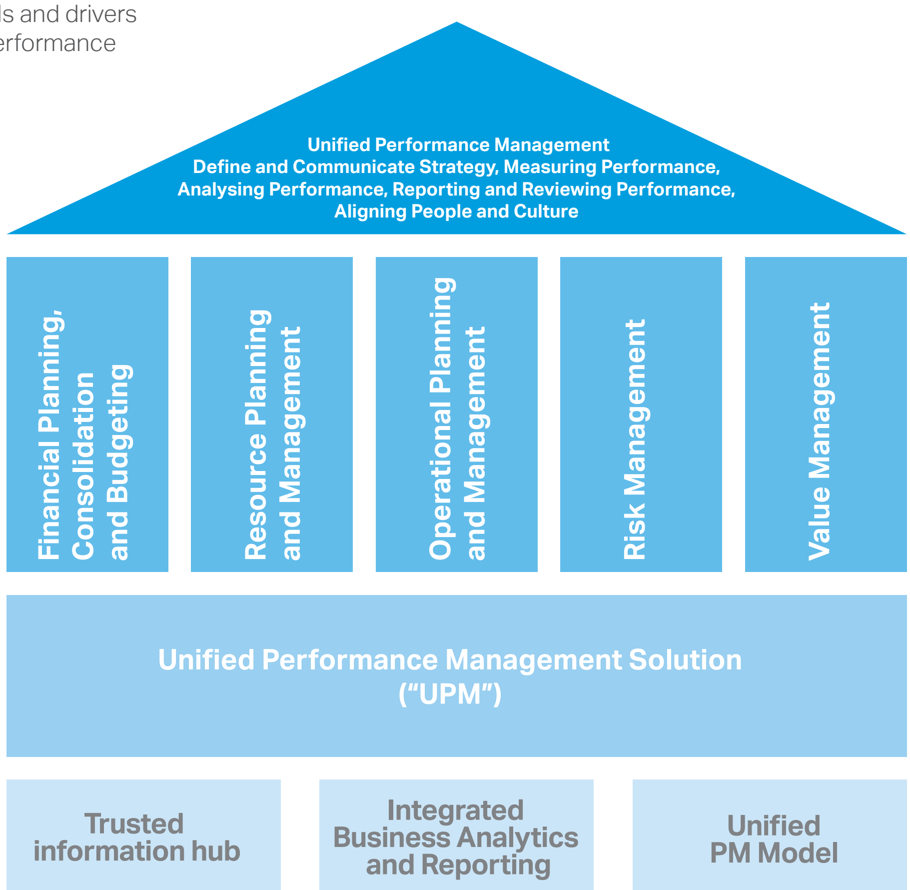


Figure 2
Unified Performance Management framework

5. Building an Unified Performance Management solution

5.1 — The Trusted Information Hub

The Trusted Information Hub is the foundation of an UPM Solution. It represents a central information staging layer that stores all relevant information to support the decision making process of an organization - strategic, operational and financial. Organizations should make a serious effort to build a foundation of business related dimensions, hierarchies, and data sources that reconcile and are trusted and meaningful throughout the organization. Integrating multiple ERP systems and third party applications (e.g. CRM) is a crucial step towards a successful UPM implementation.

5.2 — Integrated business analytics and reporting The Functional Database

One of the key enablers of UPM is the modern capability of Functional Databases. Functional Databases are still widely misunderstood, despite their increasing relevance since the GFC.

Functional Databases (for example IBM TM1 and IBM Planning Analytics) are often lumped in generically with Business Intelligence and OLAP (On Line Analytical Processing) tools. While it is technically a type of OLAP (sometimes referred to as Multidimensional OLAP or MOLAP) and provides sophisticated Business Intelligence capabilities, this is not the capability for which Functional Database Technology was designed and developed.

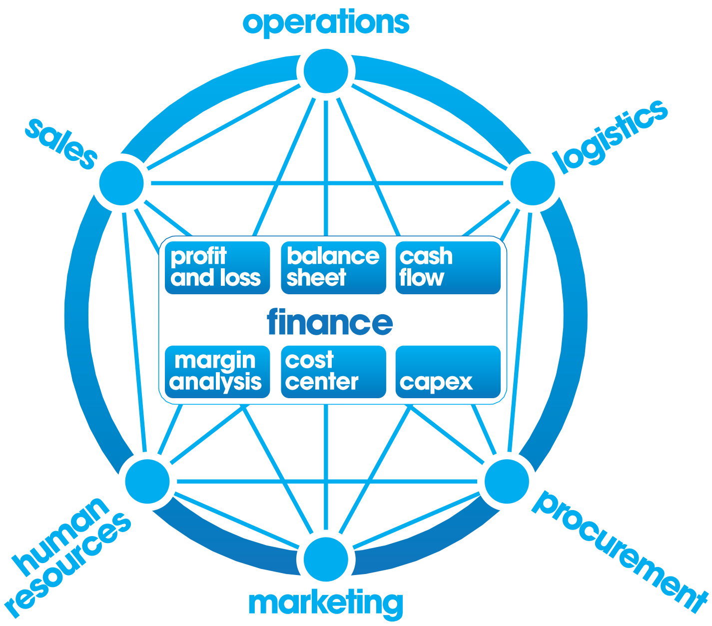
Functional Databases are also often noted for and described as "in-memory" or "write-back enabled" databases. While these describe essential aspects of any Functional Database, these are also not the defining features.

Functional Database technology was in fact designed and developed to provide highly interactive, collaborative and complex ***business modeling and analytics*** *using large (even huge) data sets and its defining feature is its spreadsheet-like cell-orientated modeling capability which makes building models conceptually intuitive for business users already familiar with spreadsheets and enables models using complex chains of calculations that mirror the integrated and interactive processes of an organization.*

Functional Databases thus essentially bridge the gap between transactional (typically Relational) databases, which are fantastic at storing and managing detailed records, but are cumbersome for analysis and modeling, and spreadsheets, which are great for analysis and modeling, but break quickly when dealing with large data volumes, highly complex models and multiple users trying to use them simultaneously, among other issues.

It is therefore essential that the UPM solution has - at its core - a Functional Database. This is a fact still curiously missed or misunderstood by most of the well-known Performance Management technology solutions available today, and its absence in these solutions has been the dominant factor in true UPM being unachievable for organizations that have invested in those technologies.

5.3 — The Unified Model



The core financial model

Think big, start small. In order to develop an Unified Model one has to draft a vision that entails all the relevant processes that are outlined in the UPM framework.

At the core of it lies the Integrated Financial Information Model which is built on business related value drivers for P&L, Balance Sheet and Cash Flow. This core model will be the backbone of the Unified Model as all the other models and applications ultimately will link into Profitability, Financial Position, Solvency or Liquidity.

Business driver - Operational model

Analyze your operational value chain and build an operational model that supports the whole value chain - from customer acquisition to sales to supply chain as well as manufacturing and back to after-sales. It is important to build a model that supports all key operational processes and derive the key value drivers in order to have an operational model that is structured around what will generate value in your organization.

Resource model

Build a resource model that supports HRM processes (FTE resource planning, expense planning, capacity, remuneration) that will give you better insight into your organization's most valuable asset – your employees.

If you have a capital intensive business, you may want to build a model that is specifically drafted around your capital investment requirements (including project planning). This will help you better understand the impacts of your capital investments and their impact on both Balance Sheet and Cash Flow.

Cash is king. As such, if you do not have a separate Treasury application, integrate your short term cash flow planning with your operational planning. You will be able to quickly assess short- and long term cash requirements and be able to better understand foreign exchange impacts based on projected in and outflows.

Risk and value management

Last but not least, once you have achieved building your financial and operational models it will be "easy" to integrate a risk and value management model as all the relevant information and drivers can be derived from the existing financial and operational model foundations.

6. The challenges ahead and the common pitfalls

Driving a change process within an organization towards UPM is not an easy task and demands a lot of energy, expertise and patience. In this section I will highlight what challenges may be ahead of you and what common pitfalls there are.

Get buy-in from management and the board

Building a performance and fact-based driven organization is not a simple task. Often a C-Level executive must convince his peers of the benefits of UPM first and why a change towards UPM will generate value for the whole organization. After all, shareholders, the board and management all want to have aligned, informed and efficient organizations.

We have all experienced the frustration of a new strategy being developed only to face the naked truth twelve months later that still nothing has changed and no operational measures have improved towards the goals of the strategy. C-Level executives must be aligned and convinced that UPM will help the organization to better perform and unleash value – ultimately an UPM project should be internally sponsored by the CEO, CFO or COO in order to receive the priority it requires.

Data quality

"Garbage in, garbage out".

This is the most important step towards building a stable foundation on which you will be able to build your UPM solution. Spend enough time on designing a proper data model and cleansing the data coming from different data sources so that business people will understand and trust the information. Make sure that qualified people within your organization will help reconcile the data to the source systems so that they will also trust the information hub.

These internal advocates will be invaluable in helping to deploy UPM successfully. Don't be too frustrated if you have multiple setbacks when building the foundation of the UPM, it will be worth it in the end. Especially when you integrate data from multiple sources (e.g. SAP, CRM, POS) you will often find out that the different data sources do not reconcile at first glance.

Nevertheless, with the right tools (ETL and Data Management) you will be able to build your Trusted Information Hub.

The battle for talent

Although this may sound like a cliché, it is a critical factor when you are planning to roll out an UPM solution. Analytical skills are still rare, especially outside of finance organizations. Although you will find business analysts with experience and capabilities around financial modeling and analytics, it is still difficult to find qualified people in operational roles that have the right analytical skill set.

Use business analysts' skills to train non-finance people with analytical potential in order to broaden the analytical "think tank" within your organization. Use external consulting and training firms to support you in growing your internal analytical capabilities if necessary, it will be worth it in the long run.

Ultimately, it is critical to make sure your organization owns and retain these analytical skills. Organizations that have implemented UPM solutions ordinarily are able to better retain human resources with high analytical skill sets due to their ability to leverage their capabilities at the top end of the food chain – analytical people are looking for the ultimate brain teaser!

Complexity in the model

Developing an UPM solution is not a simple task. The main difficulty lies in the internal ability to develop an Unified Model that supports the relevant business processes. Ultimately this also ties back to the internal talent pool. Unless your organization has resources that have deep and thorough knowledge in financial and operational modeling, you will struggle to develop your own model.

First build your Integrated Financial Information system based on best-practice integrated financial models. Once you have achieved this first step you will be able to further expand your model with additional business-related models as outlined above.

Get help from outside to develop your model if necessary and use it as a chance to build up internal financial and operational skill sets by training your best talent during the implementation of the UPM solution. Don't be afraid to be hands on when developing the UPM solution – not only is it a lot of fun (believe me) but you will also learn quickly how to develop a tailor-made solution for your organization. This experience will be invaluable for you and your team!

7. Create an Unified Performance Management vision for your company

A vision is a dream with a deadline.

Why do you need a vision for UPM?

Because managing significant change of any kind requires a clear view of the starting point, the finish line, and the route from one to the other.

Functions that materially improve their value to the business share a common characteristic; their change is driven by the challenge of realizing a vision – a vision tailored to the company's own circumstances, strategy and strengths. As such you should aim high and be bold.

Create an UPM vision that will encompass your whole organization - all functions and all businesses across the globe.

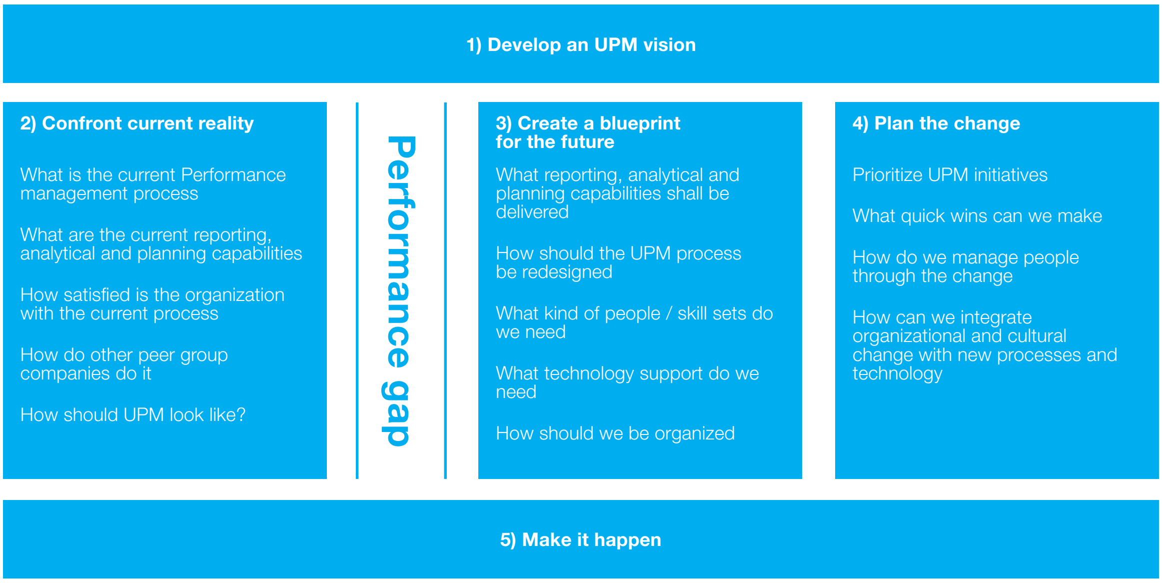


Figure 3
a five-phase approach to developing and delivering a vision for UPM

The vision will set the scene for a compelling case for change. Time and care spent in creating a vision for UPM are amply repaid, because a well-crafted vision is a powerful tool for communicating with finance people and customers in the business.