Apliqo
a Cubewise Company

Advanced Financial Planning and Value Based Management — A practical example

Key concepts

- **Advanced Financial Planning (AFP) - identify relevant value drivers, understand sensitivites and create what-if scenarios around key value drivers.**
- **Value Based Management (VBM) as key concept to managing and executing strategy by identifying drivers that the company should focus on.**
- **Measure and allocate cost of capital to optimize capital allocation in an organization.**
- **When VBM and AFP are implemented, this can unleash tremendous value in the organizations by aligning strategy with operational execution and focusing the allocation of resources to where they can yield the highest returns.**

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1 — Value creation

Shareholders invest their funds in companies, putting their wealth at risk with the intention to receive a greater amount in return. If this is accomplished, in general, this can be considered value creation.

The purpose of this White Paper is to highlight the methodologies used by companies to manage their value creation process based on VBM (Value Based Management) and to demonstrate how they align this with the Unified Performance Management (UPM) framework.

From an accounting perspective, profit can be defined as the amount of income exceeding costs. In many cases, this simple perspective is sufficient to define value creation.

Economic profit is defined as the amount by which cash inflow exceeds the costs associated with all factors. This not only includes expenses incurred in operating the business but also the cost of capital invested in the business.

As companies became more complex – mainly driven by globalization and technological developments, driving efficiency and growth – factors such as time differences, depreciation and amortization of assets, book versus tax accounting policies, and investments such as inventories and accounts receivable cause profits to become more difficult to measure. In addition, the continuous changes of international accounting standards (e.g. US-GAAP or IFRS) have led to more complexity with regard to the correct valuation of assets and liabilities. At the same time, the disparity between accounting profits and economic profits diverges more and more.

In order to create value, a company cannot only generate accounting profits, it must also generate economic profit to account for the cost of capital (usually referred to as WACC or Weighted Average Cost of Capital) and thus take into account the risk of investing in an asset. On the one hand, if a business does not produce sufficient return to generate Economic Profit, it will ultimately lose value. On the other, this also means that if a company only generates return that is equal to the cost of capital, the value of the company will remain the same, i.e. the shareholder will simply have swapped one asset for another with the same value.

Time plays a very important role in assessing the value of a business. Normally, measuring profit over just one year does not capture whether value has been created or not, as investments in a business typically generate return over a longer period of time. This period, known as the economic life of an investment, is the relevant period for value measurement.

Assessing the value of a company (or a group), a business unit, division or legal entity is more of an art form than a science. But well-designed processes and models support value assessment, help companies to evaluate risk and allocate capital efficiently to drive value – through VBM and UPM.

2 — Advanced Financial Planning: Closing the loop

Advanced Financial Planning (AFP) is defined as a corporate financing model that looks at the profit & loss account, the balance sheet and cash flows - where the impact of all relevant business and value drivers is determined - from a profit, expense, asset, financing or capital perspective and this, in one coherent loop.

The basis for a functioning AFP model is the identification of the relevant value drivers of an organization and the ability to understand sensitivities of these as well as the competence to create what-if scenarios around the key value drivers.

AFP ultimately enables finance organizations to communicate the impact of plans to the respective stakeholders, from top management and executives to the board effectively.

VBM is based on a functioning AFP model, as it requires all aspects of value creation - profit and capital.

3 — The theory of Value Based Management and how it fits with Unified Performance Management

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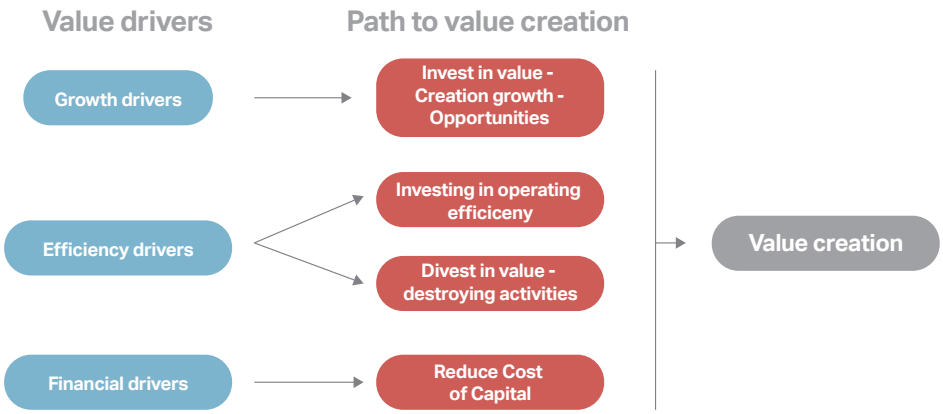
4 — VBM as the key concept to managing and executing corporate strategy



The identification and management of value drivers draws the attention of management to activities that will have the greatest impact on value. Thus, management will be able to translate value creation into tangible and specific actions.

There are three categories of value drivers: growth drivers, efficiency drivers and financial drivers. By focusing on value drivers, management can prioritize the specific activities that will affect performance in each area (using KPIs to measure and manage performance and outcome).

To identify those value drivers that a company should focus on, the company has to address two key questions:

- Which factors will have the most significant impact on future value creation for the business?
- Which of these factors can be managed most effectively?

There are two simple ways to identify value drivers:

- Value drivers have a significant value impact
- Value drivers are controllable (e.g. commodity price inputs may be important to your business but since management does not influence them, they may not deserve significant management attention other than from a risk management perspective).

5 — Value Driver Analysis

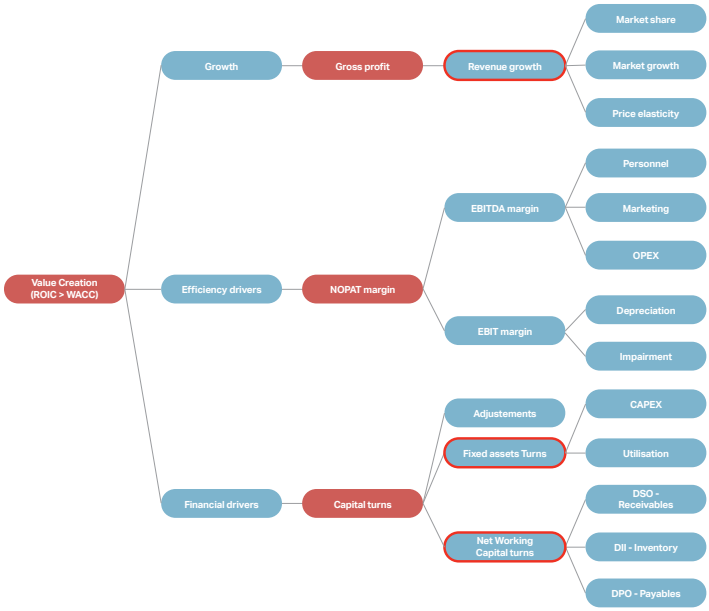
Value driver analysis is an important foundation for strategic planning: it helps management to identify and define critical strategic levers. If, for example, efficiency drivers are important to a company, management can direct strategic planning to focus on efficiency strategies and activities supporting it. In short, value drivers ensure that a strategy is grounded in the reality of operating performance.

Identifying value drivers is a three-step process:

Step 1

Develop a value driver "map"

To understand where your company's value drivers lie, first, you need to break down the broad operating parameters of the business into progressively smaller components, until you reach the level where daily operations management decisions are made. Then, the specific factors influencing sales growth, operating profit (represented as NOPAT margin – net operating margin after tax), capital efficiency (capital turns), etc. are documented.



Step 2

Test for driver sensitivities

The company must first define the basis level for each operating factor, after which it can test changes of each factor impact on the overall value of the business (based on net present value calculation methods such as the discounted cash flow method). This usually leads to valuable and interesting insights into the relevance of the specific operating factors and often also leads to a change of management priorities.

Step 3

Test for controllability

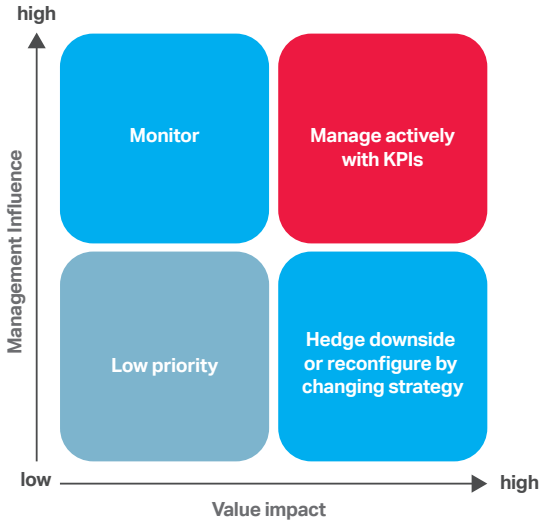
Each of the operating variables must then be examined to discover those that management can control and influence.

A value driver analysis requires significant investments in terms of time and energy. It may also require information that is difficult to obtain and involves the development of an interrelationship model between variables within the business. This kind of complex modeling can be facilitated by the use of appropriate tools – such as functional databases like IBM Cognos TM1. Modern functional databases are designed to support this kind of modeling and sensitivity testing with multiple variables and large number of data sets.

However, companies that have made this investment have discovered that this analysis helps to draw management's attention to a manageable number of value drivers. Further, it provides a foundation to optimize the strategy around value driver performance and maximize value creation.

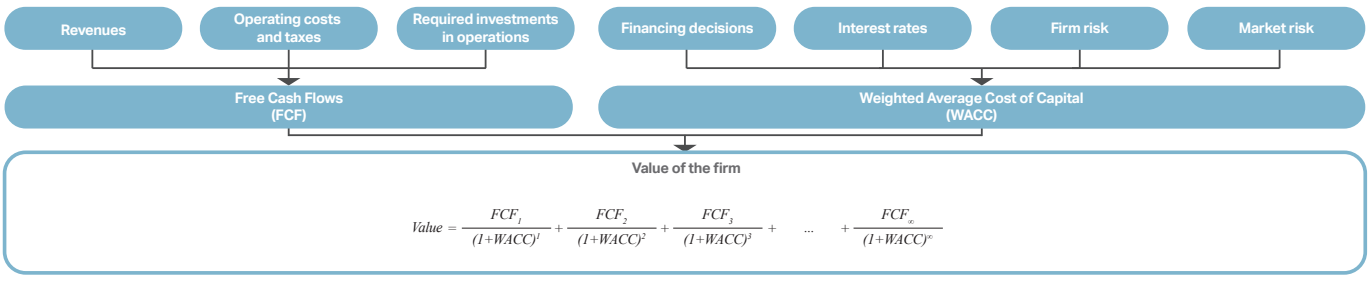
6 — What drives value: Focusing on what matters

The value driver matrix below illustrates a framework for the prioritization of value drivers. The key task here is to identify those variables that reside in the red quadrant and to manage the resources directed at influencing variables in the orange quadrants. Based on the insights gained during the value driver analysis, process management can easily assess where to allocate value drivers and communicate priorities effectively within the organization.



Measuring and allocating cost of capital

Valueing a business



The value of a company is determined by the volume, timing and risk of its Free Cash Flows (FCF).
In particular, a firm's value is the present value of its FCFs, discounted at the Weighted Average Cost of Capital (WACC).

7 — Assessing free cash flows based on value drivers

Free cash flows are assessed on the basis of value driver maps and specific business plan modeling – using historic, current and future data input for the relevant value drivers. The level of granularity depends on the complexity of an organization. The company must decide whether it wants to assess the value of its business by dividing the company into different parts (i.e. legal entities, cash generating units, divisions, business units) or looking at it as a group (at consolidated level).

Splitting the organization into separate parts enables management to assess the value creation of its strategic business units (SBUs) and enables better, informed strategic decisions and optimal capital allocation.

8 — Assessing cost of capital based on capital allocation and the CAPM model

"The weighted average cost of capital (WACC) is the rate that a company is expected to pay on average to all of its security holders (both debt and equity) to finance its assets.

The WACC is the minimum required return (investment threshold rate) that a company must earn on an existing asset base to satisfy its creditors, owners, and other providers of capital in order to keep or attract stakeholders. Companies raise capital from a number of different sources: equity and debt instruments, warrants, options, pension liabilities, government subsidies, etc. Different securities that represent different sources of finance are expected to generate different returns (depending on the risk profile). The WACC is calculated taking into account the relative weight of each component of the capital structure. The more complex the company's capital structure, the more laborious it is to calculate the WACC."

Source: Investopedia

So far, the theory how to calculate the WACC is straight forward (based on the capital asset pricing model or CAPM), but in real environments, it is not that easy to assess the cost of capital because many organizations have complex organizational structures with different inter-company relations (debt and equity funding) and holding or financing entities that take over the role of an internal bank, making appropriate capital allocation a difficult task.

VBM solutions help organizations to allocate capital and cost of capital based on capital utilization and provide management with a tool to assess the "right" cost of capital and capital used by its SBUs. This, in return, makes a transparent assessment of value creation in the organization and informed, aligned decisions around capital allocation possible.

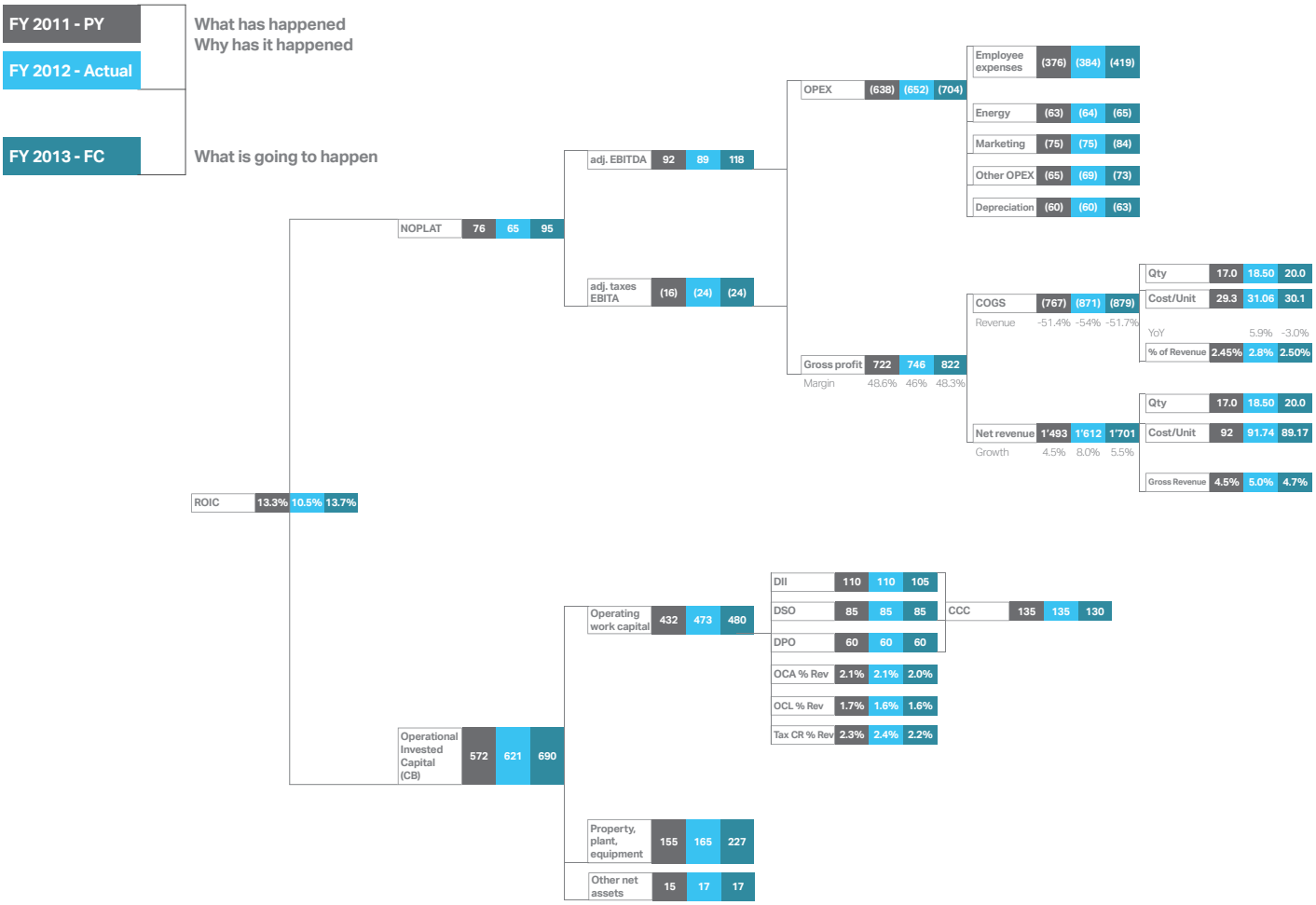
"The WACC is calculated taking into account the relative weight of each component of the capital structure. The more complex the company's capital structure, the more laborious it is to calculate the WACC."

9 — Reporting for value creation and capital efficiency

Value based management as a management concept is well received and understood by top management and corporate financial experts. However, it is often not understood as well by lower level management and/or operations. As such, one of the most difficult tasks is to introduce the concept of VBM in an organization so that all relevant managers will understand and know how to use it efficiently.

Thus, a simple and transparent reporting process backed by a Unified Performance Management solution (UPM) can be of support in communicating effectively. The value driver map presented through a UPM solution can link VBM to the operational goals.

Management will then be able to break down the different parts of the value tree into specific KPIs that are shown in the graph below, supporting the company to understand cause-/action relations and sensitivities.



No secret recipe

Many companies are still stuck in a relatively early stage of performance management solutions where the information provided to management is purely limited to profit & loss measures. The reasons for this are manifold but can mostly be explained by poor data quality, a lack of knowledge on how to build an AFP model or uninspiring PM implementations.

The components for the creation of a functioning AFP model are not to be found in a secret recipe but are fairly simple and can be implemented with relative ease, according to the following must-have list:

- Need of a transparent and well-structured chart of account (detailed), group chart of account (condensed for statutory or external reporting)
- Access to trial balance data from general ledger systems that reconcile (monthly data, minimum 2 years history)
- Identify value drivers, allocate the value drivers to the relevant group chart of account Items
- Map group chart of account Items to a group cash flow chart of account to be created (condensed for management or external reporting), in accordance with the relevant accounting standards (i.e. IFRS)

The mapping exercise can be explained with the following example. The principles for this exercise are a P&L, balance sheet and a cash flow statement that is derived from the movements of the balance sheet and profit & loss statement (based on indirect method – IAS 7.18).

Key principles specified for the preparation of a statement of cash flows

Key principles specified by IAS 7 for the preparation of a statement of cash flows are as follows:

- Operating activities are the main revenue-producing activities of the entity that are not investing or financing activities, so operating cash flows, including cash receivings from customers and cash payments to suppliers and employees [IAS 7.14]
- Investing activities are the acquisition and disposal of long-term assets and other investments that are not considered to be cash equivalents [IAS 7.6]
- Financing activities are activities that alter equity capital and the borrowing structure of the entity [IAS 7.6]
- Received and paid interest and dividends may be classified as operating, investing, or financing cash flows, assumed that they are classified consistently from period to period [IAS 7.31]
- Cash flows arising from taxes on income are normally classified as operating cash flows, unless they can be identified specifically by financing or investing activities [IAS 7.35]

The indirect method adjusts accrual basis net profit or loss for the effect of non-cash transactions. The operating cash flow section of the cash flow statement under the indirect method would look like the table on the next page.

Key principles specified for the preparation of a statement of cash flows (continued)

Profit before interest and income taxes		xx,xxx
Add back depreciation		xx,xxx
Add back impairment of assets		xx,xxx
Increase in receivables		xx,xxx
Decrease in inventories		xx,xxx
Increase in trade payables		xx,xxx
Interest expense	xx,xxx	
Less interest accrued but not yet paid	xx,xxx	
Interest paid		xx,xxx
Income taxes paid		xx,xxx
Net cash from operating activities		xx,xxx

- The exchange rate used for the translation of transactions denominated in a foreign currency, should be the applicable rate on the date of the cash flows [IAS 7.25]
- Cash flows of foreign subsidiaries should be translated at the exchange rate prevailing when the cash flows took place [IAS 7.26]
- With regard to cash flows of associates and joint ventures, where the equity method is used, the statement of cash flows should only report the cash flows between the investor and the investee; where proportionate consolidation is used, the cash flow statement should include the venturer's share of cash flows of the investee [IAS 7.37-38]
- Aggregate cash flows relating to acquisitions and disposals of subsidiaries and other business units should be presented separately and classified as investing activities, with specified additional disclosures. [IAS 7.39] The aggregate cash paid or received as consideration should be reported net of cash and cash equivalents acquired or disposed of [IAS 7.42].
- Cash flows from investing and financing activities should be reported gross, by major class of cash receipts and major class of cash payments, except for the following cases (re. below), which may be reported on a net basis: [IAS 7.22-24]
- Cash receipts and payments on behalf of the customers (e.g. receipt and repayment of demand deposits by banks, and receipts collected on behalf of and paid over to the owner of a property)
- Cash receipts and payments for items with a quick turnover, large amounts and maturities that are short, generally less than three months (e.g. charges and collections from credit card customers as well as purchase and sale of investments)
- Cash receipts and payments relating to deposits by financial institutions
- Cash advances and loans made to customers and repayments thereof
- Investing and financing transactions which do not require the use of cash should be excluded from the statement of cash flows but they should be separately disclosed elsewhere in the financial statements [IAS 7.43]
- The components of cash and cash equivalents should be disclosed and a reconciliation presented to amounts reported in the statement of financial position [IAS 7.45]
- The amount of cash and cash equivalents held by the entity that is not available for use by the group should be disclosed, together with a commentary by management [IAS 7.48]

A practical example — Closing the loop

Profit and Loss
1.1.xx - 31.12.xx

Ref		
	Revenue	10'000
	COGS	-5'000
	OPEX	-3'500
A	EBITDA	1'500
A	Depn & amort	-500
	Interest	
D	Expenses	-200
D	Taxes	-240
J	Net profit	560

REF - Reference key between P&L, Balance Sheet and Cashflow

OB - Opening Balance

CB - Closing Balance

MOV - Movements in the Period

Balance sheet
31.12.xx

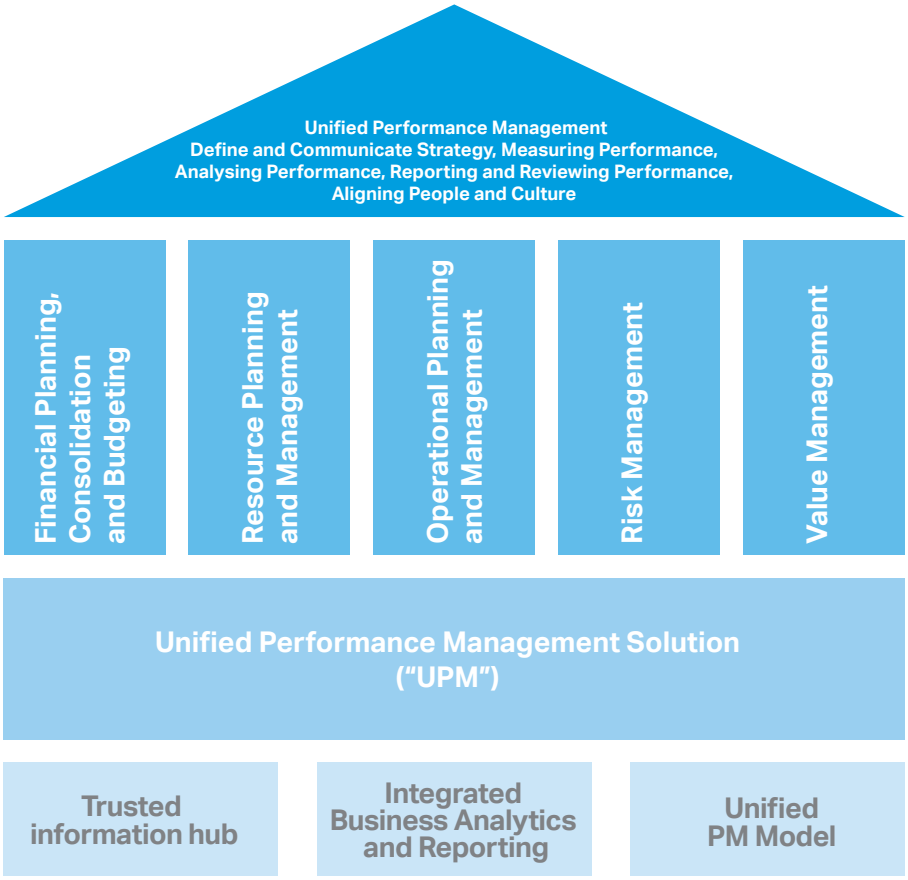
Ref		OB	CB	MOV	Weighting
K	Cash	1,500	1,750	250	1
C	AR	2,000	2,500	500	-1
C	Inventory	3,000	3,500	500	-1
	Current assets	6,500	7,750	1,250	-
E	Gross fixed assets	10,000	12,000	2,000	-1
B	Accum. depn	-5,000	-5,400	-400	-1
F	Gross intangible assets	2,000	2,500	500	-1
B	Accum. amort	-500	-600	-100	-1
	Fixed assets	6,500	8,500	2,000	-
	Total assets	13,000	16,250	3,250	-
G	ST debt	1,000	1,700	700	1
C	AP	2,500	3,500	1,000	1
C	Other curr liabil-ities	500	490	-10	1
	Current liabilities	4,000	5,690	1,690	-
H	LT debt	4,000	5,000	1,000	1
	Total liabilities	8,000	10,690	2,690	-
I	Equity	2,000	2,000	-	1
J	Retained earnings	3,000	3,560	560	1
	Shareholders Equity	5,000	5,560	560	-
	Total L & E	13,000	16,250	3,250	-

Cash flow
1.1.xx - 31.12.xx

Ref		
A	EBIT	1,000
B	Depn & amort	500
C	Net working capital change	-10
D	Interest exp & taxes	-440
	Cash flow from operations - CFO	1,050
E	Investments fixed assets	-2,000
F	Investments intangible assets	-500
	Cash flow from investing activities - CFI	-2,500
G	ST debt financing	700
H	LT debt financing	1,000
I	Equity financing	-
J	Dividend payout	-
	Cash flow from financing activities	1,700
K	Net cash flow	250
	Cash balance beginning period	1,500
	Cash balance ending period	1,750

As demonstrated in the tables above, the net cash flow calculation bases on the indirect method of '250' and is equivalent to the movement in cash in the balance sheet. Ultimately there is simple check mechanism where one can test if the AFP model is reconciling and thus successfully mapping of all the group chart account items to the group cash flow chart of account items can be established.

UPM Framework – How VBM and AFP fit in



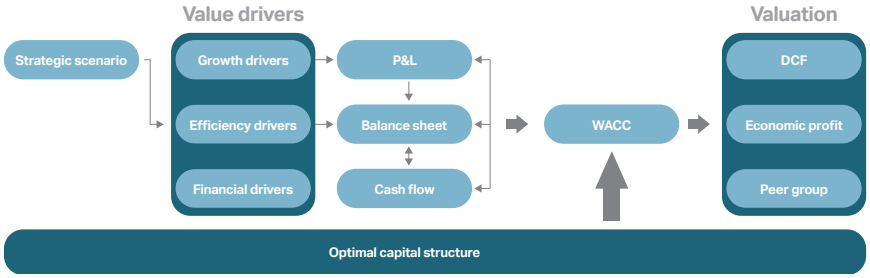
Value Based Management (VBM) focuses on the creation of value (through execution of strategy), the management of value (governance, change management, organizational culture, communication, leadership) and the measurement of value (valuation).

Organizations with a value based management approach do focus on unleashing value in the organization through long term planning and financial modeling (corporate scenario planning), corporate benchmarking (peer group analysis), mergers & acquisitions (pro forma integration) and on the analysis of efficient capital allocation (economic profit through transparent charge of capital charges to business units).

Integrating value management into the performance framework provides management with a bird's eye perspective of the organization, a comparison with its closest peers and alternatives to unleashing value. As such, VBM is a pillar of the UPM framework that closes the loop) between operational and strategic management.

The VBM Model

The VBM model is based on the value driver map in conjunction with a core financial model that considers profitability (P&L), financial position (balance sheet) and solvency (cash flow) as well as the allocation of cost of capital (WACC) to determine the net present value of the firm (based on different valuation techniques such as DCF, Economic Profit or Peer group analysis / valuation-multiples analysis).



12 — Why a VBM solution should be implemented and how an AFP model can be created in the organisation

When VBM and AFP are implemented, this can unleash tremendous values in the organizations by aligning strategy with operational execution and focusing on the allocation of resources to where they can yield the highest returns.

Business	Change in behavior	Impact on business
Retail household goods	Shift from a broad national growth program to focus on building national regional scale first	30 – 40 % growth in potential value
Insurance	Repositioned product portfolio to emphasize products most likely to create value	25 % increase in potential value
Oil production	Use new planning and control process to help drive major program	• Multimillion dollar reduction in planning function through streamlining • Prompted an acquisition • Exposed non-performing managers
Banking	Chose growth versus harvest strategy, even though five-year return on equity very similar	124 % potential value increase
Telecoms	Generated ideas for value creation - New service - Premium pricing Approx. 40 % of planned development projects in one business discontinued Sales force expansion plans completely revised after discovering how much value they would destroy	240 % potential value increase in one unit 246 % potential value increase in one unit

13 — A practical example of AFP and VBM – Apliqo UPM

Apliqo FPM provides a Unified Performance Management (UPM) solution that empowers business users. AFP and VBM concepts have been built-in and represent the core of the UPM model developed by Apliqo.

Apliqo FPM is a Unified Performance Management Solution targeted at the C-Level offices. It provides a pre-built Performance Management Solution with unified reporting, analysis and planning in ten different modules.

It has been developed on the basis of more than 10 years of best practices gained in over 300 projects around the globe with more than 200 customers.

- Access best practice performance management process reports, analysis, modeling and planning capabilities
- Reduce implementation risk with the Apliqo UPM framework
- Leverage hundreds of pre-built Apliqo FPM planning, analytical and reporting applications
- Customize according to requirements, thanks to a highly flexible business modeling engine
- Implement and expand functionality when needed
- Improve performance management processes by creating a unified, coherent loop throughout the organization.

14 — Closing words – How does VBM fit into the new century

The idea that the sole purpose of a firm is to generate money for its shareholders can be attributed predominantly to an article published in 1970 by Milton Friedman. For decades, the concept of shareholder value was used as the key concept in many (mostly public and private equity backed) companies and the magic of it seemed to work. But once the financial crisis hit the world, the concept was greatly criticized for its weaknesses – despite all of its merits.

Companies are going back to the roots of what businesses are all about – creating value for customers. Peter Drucker once said "There is only one valid definition of business purpose: to create a customer. It is the customer who determines what a business is. It is the customer alone whose willingness to pay for a good or a service converts economic reason into wealth, things into goods.

The customer is the foundation of a business and keeps it in existence." As such, shareholder value can no longer be seen as the key mantra and key management concept but should be considered an integral part of the performance management process to ensure that capital is allocated efficiently and that strategic decisions are made in conjunction with value creation – for the long term.

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