

How to Justify the Business Case for EPM

Step-by-step guide to quantifying and articulating the value of EPM

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SUMMARY

Catalyst

While most enterprises understand the value of an enterprise performance management (EPM) solution, they often find it difficult to justify its benefits and accurately know its costs. As with BI investments, EPM frequently involves significant hidden costs and upfront investments which are difficult to predict. Initial manpower and efforts are often significant and may dwarf the investment made in software licenses. In addition, there is usually a heavy professional services element, similar to data warehouse deployments. The effort and costs associated with services depend on difficult-to-control factors such as the number of data sources that one is integrating, the complexity of data integration processes, and the logical and physical data modeling that is required.

In this report, Ovum provides practical tips to enterprises on how to accurately model the costs and benefits of procuring and managing an EPM solution. The report details various methods that can be used to understand the true economic value of an EPM solution.

Ovum view

Deploying an on-premises EPM solution is a time-consuming process that requires a lot of due diligence. When a proposal is put forward for implementing an EPM system, two questions which invariably come up require a quantification of total cost and return on investment (or any other metric that calculates returns). Enterprises should ideally engage in a cost-benefit analysis before embarking on an EPM project. A properly done cost-benefit analysis builds a better business case for the project and helps speed up the sales cycle. A realistic return estimation helps enterprises make an "invest or not invest" decision quickly, set realistic goals, and allocate specific funds to meet purchase and deployment expenses. The analysis also creates a baseline value that can be used in the future to measure actual performance against the estimates.

On the other hand, it is equally important to communicate to stakeholders the intangible, but just as significant, benefits. Rather than focusing too minutely on exact numbers, organizations should also weigh in the benefits of intangible or hard-to-price options in the decision. For example, risk management and disaster aversion is a key benefit of EPM, but it is extremely difficult to put a price on how likely EPM is to avoid an adverse event. In such cases, a scenario-planning chart may be prepared, where the outcomes with and without the EPM system could be demonstrated.

Key messages

- Assumptions used to model ROI can change based on industry, company size, geography, and environment, so it is important to test assumptions internally.
- Enterprises that deploy in phases, spreading license acquisition smoothly over the deployment period, achieve profitability much faster.
- The involvement of third-party IT service providers (consultants and system integrators) that do not understand the business often leads to semi-successful EPM deployments that do not deliver promised benefits.
- Instead of implementing EPM to fit semi-efficient processes, it pays to think about process restructuring before deployment.
- Intangible and indirect benefits often deliver a majority of value for stakeholders, so it is important to recognize these benefits while deploying.
- Most vendors offer discounts on list prices, along with volume and pricing breaks which should be factored into ROI calculations.

TAKING STOCK AND MAKING VALID ASSUMPTIONS

Generic assumptions should be avoided as much as possible

To model costs and benefits accurately, it is important to make and test a few assumptions that best define an organization's operational environment. Some of these assumptions are listed in Table 1.

Table 1: Key assumptions

Assumption	Explanation
Discounts on list price	An idea of EPM module prices from various vendors, and probable discounts an enterprise might get from a favored vendor. Discounts will differ based on volume, past relationship, geography, etc.
Hardware	If any new servers are purchased, the cost of hardware per server. Organizations that use standard blade and rack-mounted servers for deployment incur about \$10,000 per blade, but this may change depending on geography and vendor.
Total compensation	The total annual compensation and rewards of an IT and finance employee, including salary, variable compensation, and all direct benefits.
Salary inflation	An annual rate at which salaries grow in the deploying company. This is lower (less than or equal to 5%) in mature geographies and higher (over 10%) in emerging economies such as the BRIC nations.
Discount rate	The discount rate to be used for net present value (NPV) calculations (assumed to be 10% on average). Discount rates vary widely within industries and companies and measure the ideal risk profile of a company – most often discount rates mirror the weighted average cost of capital (WACC) of the company. Enterprises are urged to consult with their respective company's finance department to determine the most appropriate discount rate to use within their own organizations.
Time horizon	Time horizon used for the financial modeling is usually kept between five years and ten years. In Ovum's experience, organizations use a particular EPM platform for at least ten years.

Source: Ovum

UNDERSTANDING DIRECT AND FIXED COSTS

Direct costs are relatively easier to calculate

Direct costs, as the name implies, refer to costs that can be completely attributed to the acquisition, deployment, administration, and management of EPM. Direct costs could refer to licensing, labor, and expenses that have been solely used for EPM and can be completely attributed to EPM processes. In many cases, EPM uses shared resources (such as an existing server or an existing enterprise data warehouse). Such expenses are typically classified under indirect costs.

Software licensing costs (SWLC)

There are multiple licensing models in enterprise software, but for this report Ovum highlights the top models commonly used in on-premises and cloud EPM solutions. Top on-premises licensing metrics include:

- **License per application user (several types) and variants:** This is the most commonly offered licensing metric based on the number of named or committed users that have access to the application. Users may be of different types – developers, power users, and viewers – and are assigned different license prices based on functionality provided.

- **License per module:** In certain cases EPM solution add-ons are sold by module. This is particularly relevant for selling training content, which is typically only bought once and used many times.
- **License per processor or CPU:** Every CPU that runs some part of the licensed software is considered a metric in licensing. When counting physical CPUs, each core of a physical CPU that runs at least parts of the licensed software, including those that are temporarily assigned or scheduled to cover peak processing, is considered and counted.
- **License per record:** Some vendors use per-record licensing to price the data management and integration side of EPM. Typically EPM systems do not use an enterprise data warehouse to store data or model relationships, which necessitates an internal data relationship mapping/modeling environment.

Top cloud licensing metrics include time-based subscriptions (monthly, yearly, quarterly), which includes the cost of license and maintenance.

In order to calculate the total licensing expense, enterprises need to reliably estimate their total usage requirements and arrive at the number of licenses required. Ovum recommends breaking down any licensing metric into the "license per application user" metric, at least for internal calculation purposes, as this metric is the easiest to explain to all audiences. Enterprises typically need user licenses for the office of finance and the heads of business divisions, and developer licenses for IT/finance professionals who create EPM processes and models. An important factor to consider here is a staggered deployment model and likely workforce expansion. In other words, given that EPM deployments usually take months (if not years), all licenses may not need to be acquired from year one. Also, while a growth in headcount in the future could mean additional EPM licenses, efficiencies realized from EPM deployment usually increase the efficiency of the workforce and reduce the rate of headcount growth. Arriving at a realistic estimate for these figures is critical in optimizing licensing costs.

Licensing costs – on-premises

Table 2: Mock example for licensing costs

Number of licenses required	500	Cost per "user" license	\$10,000
Among which, users	400	Cost per "developer" license	\$20,000
Among which, developers	10	Cost per "viewer" license	\$5,000
Among which, viewers	90	Licensing option	Per application user
Rollout plan	200 licenses in the first year, among which 10 developers, 190 users, rest in the second year		
Total costs in the first year (SWLC1)	$= 10 * \$20,000 + 190 * \$10,000 = \$2.1m$		
Total costs in the second year (SWLC2)	$= 110 * \$10,000 + 90 * \$5,000 = \$1.55m$		

Note: Amounts and license prices are for demonstration purposes only and do not reflect real product prices.

Source: Ovum

Licensing costs – SaaS

Since SaaS EPM solutions charge for subscriptions and not licenses, it is relatively easy to calculate the total software costs by multiplying subscription price per user by the number of users. Also, deployment times for SaaS solutions tend to be lower than a year, so all subscriptions are expensed as incurred and the time-value of money does not complicate calculations.

Software maintenance costs (SWMC)

Most on-premises software usually comes with a maintenance contract from the same vendor. Vendors offer maintenance as an optional add-on, but in real terms the customer needs to purchase maintenance in order to receive any updates, patches, and support (bought together or separately). Maintenance contracts usually have a term of one year.

Maintenance costs – on-premises

Table 3: Mock example for maintenance costs

Number of licenses required	500	Cost per "user" license	\$10,000
Among which, users	400	Cost per "developer" license	\$20,000
Among which, developers	10	Cost per "viewer" license	\$5,000
Among which, viewers	90	Licensing option	Per application user
		Cost per license maintenance (annual)	22% of license amount
Rollout plan	200 licenses in the first year, among which 10 developers, 190 users, rest in the second year		
Total maintenance in the first year (SWMC1)	$= (10 * \$20,000 + 190 * \$10,000) * 22\% = \$462,000$		
Total costs in the second or nth year (SWMCn)	$= 22\% * (\$2.1m + \$1.55m) = \$803,000$		

Note: Amounts, license prices, and maintenance prices are for demonstration purposes only and do not reflect real product prices.

Source: Ovum

Maintenance costs – SaaS

Since SaaS EPM solutions charge for subscriptions and not maintenance, it does not feature as a part of calculations. However, some vendors price support separately (paid every year), which can be accounted for as a standard recurring yearly cost.

Hardware costs (HWC)

EPM usually does not require special or dedicated hardware. From our discussions with enterprise clients, most organizations deploy EPM on standard x86 or x64 blade servers, and many use existing in-house capacity to host EPM. For on-premises deployments, hardware costs are typically highest in the initial years when the servers are purchased. These can be expensed, which implies that the impact of the cost affects current-year net margins but this is atypical; mostly they are capitalized, which spreads

the cost of the hardware over the number of years it will be used. Cloud-based solutions account for hardware costs in their subscription price, which is always expensed.

Other aspects of hardware costs include operations and maintenance, which is usually viewed as an annual maintenance contract (AMC) and outsourced to third parties, and treated as expensed. In some cases, enterprises that have integrated GRC and EPM programs invest in additional hardware to build in redundancy, data tiering, and ensure disaster recovery, which are priced separately as a hardware/software/services bundle.

Table 4: Mock example for hardware costs

Number of servers required	10	Cost per server	\$20,000
Server maintenance per annum	\$2,000	Cost per "developer" license	\$20,000
Disaster recovery and data-tiering costs per annum	\$1,000		
Rollout plan	Five servers in the first year, rest in the second year		
Total costs in the first year (HWC1)	$= 5 * \$20,000 + \$2,000 + \$1,000 = \$103,000$		
Total costs in the second year (HWC2)	$= 5 * \$20,000 + \$2,000 + \$1,000 = \$103,000$		
Total costs in the ensuing years (HWCn)	$= \$2,000 + \$1,000 = \$3,000$		

Note: Amounts and server prices are for demonstration purposes only and do not reflect real product prices.

Source: Ovum

UNDERSTANDING INDIRECT AND VARIABLE COSTS

Indirect and variable costs are tricky to estimate

Indirect costs are costs that are not directly accountable to an EPM project, facility, function, or product. Indirect costs may be either fixed or variable. Indirect costs include administration, personnel, and training costs, among others.

Data warehouse costs (DWC)

EPM systems assimilate data from various financial and nonfinancial systems, but usually do the ETL and data transformations in the product itself without involving the data warehouse. On-premises vendors offer mature data assimilation, quality, and integration tools along with EPM software. Organizations considering doing their data management in the data warehouse must estimate implied costs, as there might be internal chargeback to account for these costs from IT. Key facets of this estimation would include:

- cost for additional capacity required for EPM in the data warehouse (DW)
- additional personnel costs for maintaining the EPM side of the DW
- cost for building additional cubes/data quality processes for EPM.

It is important not to classify the costs of existing DW as "sunk costs" – costs that are incurred no matter whether the organization deploys the EPM solution or not. While finance may not have to pay directly for

existing capacity in the DW, classifying this as zero cost will invariably affect other enterprise projects which will end up inaccurately subsidizing the EPM project.

Ovum urges customers to closely examine the data management capabilities of cloud EPM solutions when evaluating their DW and integration costs. While most cloud EPM vendors will provide a multi-dimensional central data repository that is equipped to handle financial and nonfinancial data, users should not expect to run heavy-duty data transformation/quality algorithms on the platform. Doing so would likely require integration with a third-party solution and additional costs. In many cases cloud EPM solutions support only flat file integration, which necessitates the use of an on-premises staging area for data transformation before it can be uploaded to the cloud data repository.

Integration costs (IC)

EPM systems thrive on data. While finance data from core systems and general ledgers (G/Ls) are probably the first to be integrated, often organizations also integrate payroll, HR, sales, and marketing data for cross-reference and operational analytics. Risk data is also being increasingly integrated with EPM, so that enterprises are able to evaluate risk-adjusted performance. However, enterprises often overlook the cost of integration, which usually turns out to be significant in the longer term.

Most vendors provide a bunch of connectors (or individual connectors) to enterprise systems, and have an API that can be programmed to receive data from external systems. These connectors are usually priced per application user.

There is also a variable and recurring element to integration costs. Many enterprises require connectors to legacy systems, or have to develop specific connectors that have in-built data transformations. Doing so requires developers trained in specific coding languages – ABAP for SAP and PL/SQL for Oracle – who are frequently borrowed from other practices at a full-time employee (FTE) basis.

Personnel costs (PC) – running and administration

Enterprises usually need a dedicated team devoted to running and administering EPM deployments, handling break-fix requests, and developing new reports/applications as needed. This responsibility is usually shared between finance and IT, with IT managing the installation and development, and finance pitching in for design and content. The demand for EPM personnel is variable and usually hits a peak around month-, quarter-, and year-end, coinciding with planning windows and financial close. Due to the variable nature of demand, enterprises usually recruit a small number of permanent employees and borrow EPM personnel from other divisions to coincide with demand peaks.

Estimating personnel costs is relatively simple as it is a recurring expense and is based on the number of people involved times their average salary for the period.

Deployment costs (DC)

Deployment costs form a significant part of the EPM cost equation, especially for enterprises that are geographically scattered and have a diverse IT environment. Multiple geographies accessing one curated data store might require a synced local data server, while diverse IT environments will usually require some standardization to ensure that everyone gets the same or an acceptable level of service.

Organizations that engage external services firms to manage deployment will usually get charged on the "time and materials" model. Where the scope of delivery is relatively predictable and/or if the service provider has a keen understanding of the customer, a "fixed price" contract may also be available.

Customization and application building costs (CABC)

Given that EPM processes are unique, there is no standard one-size-fits-all approach to EPM. Enterprises usually build out their own EPM processes on the software, right from data management to reporting and dashboarding. Depending on the user-friendliness of the software deployed, development of applications and customization may require a different mix of developers and power users. However, this is usually a one-time cost and may be estimated by using the "time and materials" approach.

Training costs (TC) – development and delivery

The biggest hindrance to successful EPM deployment is user adoption. EPM platforms support complex financial analytics and transactions and aren't known to be the easiest to operate for the uninitiated user. As a result, finance professionals that are comfortable with a particular EPM solution typically resist change in technology for fear of stepping too far outside their comfort zone. Ovum believes that frequent training is one way to resolve teething issues when deploying a new EPM solution.

Enterprises should provide ample training and content alongside deployment in order to ease the transition for users. Since EPM processes are extremely company specific (unique), some vendors bundle capabilities for organizations to design their own content and training programs. While this can be executed over an enterprise e-learning or content delivery platform, vendors that provide these services bundled with their EPM solution will see higher uptake and less user resistance. Training is usually provided by third parties in a classroom or online format, with a fixed-price quote based on geographies covered and number of sessions undertaken. Some enterprises Ovum talks to prefer to do their training in-house, where a group of trainers travel to all geographies at deployment time and "train the trainers," who then become topic experts for that region.

ESTIMATING TOTAL COSTS

Total costs

At the end of a costing exercise, an enterprise should typically have a good idea of the total costs, broken down by variable/fixed costs, and direct/indirect costs.

Table 5: Calculating total costs

Cost	Year 1	Year 2	Year 3	Year "n"
Direct and fixed costs (DFC)				
Software licensing costs (SWLC)	\$2,100,000	\$1,550,000	0	0
Software maintenance costs (SWMC)	\$462,000	\$803,000	\$803,000	\$803,000
Hardware costs (HWC)	\$103,000	\$103,000	\$3,000	\$3,000
Indirect and variable costs (IVC)				
Data warehouse costs (DWC)	Estimate % of total DW costs	Same as previous year	Same as previous year	Same as previous year
Integration costs (IC)	No. of integrations * cost of bundle	0	0	0
Personnel costs (PC)	Estimate headcount * salary	Previous year's number * salary inflation	Previous year's number * salary inflation	Previous year's number * salary inflation
Deployment costs (DC)	Estimate T&M	0	0	0
Customization and application building costs (CABC)	Estimate T&M	0	0	0
Training costs (TC)	Estimate T&M	Ongoing training costs	Ongoing training costs	Ongoing training costs
Total costs (DFC + IVC)	Calculate	Calculate	Calculate	Calculate

Source: Ovum

UNDERSTANDING DIRECT BENEFITS

Increasing finance efficiency remains the key focus for EPM

Direct benefits, similar to direct costs, refers to quantifiable benefits that can be completely attributed to the use of EPM. Direct benefits are principally realized from efficiency in finance teams, which translates into time/man-hour savings for companies. With additional time at their disposal, finance professionals are freed of the burden of mundane data quality tasks and instead can focus on high-value-added financing decisions, which are key to the company's core business.

Time savings on financial tasks benefits (TSFB): close, planning, budgeting, forecasting

One of the most important benefits of deploying EPM is realizing time savings from various finance activities. Time saved can be directly counted as a tangible benefit by converting it to man-hours and salaries saved. Some enterprises also choose to engage in headcount reduction (especially after intercompany reconciliation and consolidation), which again counts as a direct benefit.

Most enterprises that we have spoken with find planning and financial close to be the most affected by EPM deployment. Capturing the effort and time savings from monthly, quarterly, and yearly close and planning should be considered low-hanging fruit for any EPM evaluation exercise, as these are most likely to record positive returns in the shortest time.

Table 6: Calculating time-saving benefits

Number of planning users	100	Yearly average salary of finance user	\$120,000
Yearly close time taken before EPM	30 days	Yearly close time taken after EPM	15 days
Quarterly close time taken before EPM	7 days	Quarterly close time taken after EPM	4 days
Monthly close time taken before EPM	2 days	Monthly close time taken after EPM	1 day
Total ongoing time savings every year	$= 100 * (15 \text{ days}) + 100 * (3 \text{ days}) * 4 + 100 * 1 \text{ day} * 12 = 3,900 \text{ days per year}$		
Total ongoing dollar savings every year (TSFn)	$= 3,900/365 * \$120,000 = \$1.28\text{m}$		

Note: Numbers are for demonstration purposes only and do not reflect real planning windows.

Source: Ovum

Similarly, reduction in time taken for financial reporting and disclosure, strategic planning, forecasting, simulation/optimization (what-if analysis), and management reporting should also be considered a direct benefit. Enterprises estimating the value of these activities should follow the same approach as in Table 6.

Time savings on IT tasks benefits (TSIB): data quality, maintenance, management

In addition to financial efficiencies, organizations deploying EPM solutions realize time savings from IT tasks such as data management, management reporting, and application development. Using EPM, many of these activities can be automated; time saved in IT can be directly counted as a tangible benefit by converting it to man-hours and salaries saved. Some enterprises also choose to engage in headcount reduction in IT, which again counts as a direct benefit.

Direct impact on revenue and costs (DRB and DCB)

While directly attributing revenue growth or cost reduction to EPM deployment is difficult, in rare cases enterprises may be able to identify specific impacts to revenue and costs due to EPM. This is usually the case with greenfield customers that have migrated from "Excel hell" and gain improved

- revenue recognition practices, realizing revenue faster
- pipeline management to easily translate prospects to customers and subsequently revenue
- cost structures by consolidating multiple entities
- reconciliation processes and approval pyramids, which are often error-prone (in some cases, these processes are completely automated or eliminated).

Direct impacts to revenue and costs can both be considered direct benefits and be added to the cash flows from the EPM project.

UNDERSTANDING INDIRECT BENEFITS

Important to acknowledge indirect benefits

There are many benefits of EPM – such as risk management – which do not directly affect the income statements as revenue or profit/loss numbers. However, their overall impact on the business is undoubtedly positive and cannot be ignored. For these indirect benefits, Ovum advises organizations to look into the balance sheet or cash-flow statement over one to two years.

Better capital management

Any business needs capital to finance its operations and grow its business. Capital can be raised through either debt or equity, with each option carrying a particular cost. Businesses that use EPM to optimize finance operations and cash management often end up

- collecting customer revenues faster
- making better project-financing decisions that lead to positive returns in a shorter period
- generating positive returns out of acquisitions faster due to better reconciliation processes and having a unified view of accounts.

As a result, businesses using EPM are generally better at capital management and have more cash at hand than others. While the use of cash at hand varies from industry to industry (Microsoft and Apple keep huge cash balances, while manufacturing majors have a cash deficit), it can be used to finance new projects instead of borrowing capital from investors. Better cash utilization leads to the lowering of weighted average cost of capital (WACC) for the company, which is a key metric that lowers the cost of doing business in the longer term.

Better cash conversion cycle

Cash conversion cycle (CCC) is a metric that expresses the length of time, in days, that it takes for a company to convert its resources/inputs into cash flows. While the interpretation of cash conversion cycle varies across industries, it is important for businesses in the same industry to have similar CCC. Having a small CCC is important for retailers, as it measures how quickly a company can convert its products into cash through sales, freeing money tied up in the production and sales process before it is converted into cash through sales to customers. Mathematically, CCC is computed as follows:

$$CCC = \text{Receivable days} + \text{inventory days} - \text{payable days}.$$

EPM solutions affect the CCC by optimizing receivables collection and payables distribution and better managing inventory. A lower (better) CCC means that a company is quick to convert its resources into revenue and cash. The shorter the cycle, the less time capital is tied up in the business process, and thus the better for the company's bottom line.

INTANGIBLE COSTS AND BENEFITS OF AN EPM SOLUTION

Improving data quality and becoming a trusted single source of truth

Data quality is a prerequisite to any financial process. Good data quality automatically helps the finance department improve the quality of internal controls and reporting processes, and helps establish stakeholder trust in data. While trusted data cannot be quantified directly, its value to the business and management cannot be overstressed.

Every EPM solution rests on a data quality module that typically automates the collection, mapping, verification, and movement of financial data. Creating a standard process for data collection and transformation eliminates variability and uncertainty around data quality. Implementing a data quality initiative also lowers the cost of compliance for enterprises. This is particularly relevant for highly regulated industries (insurance, healthcare) that are governed by stringent compliance directives. Auditable and validated data is easier to audit and review and can be easily traced back to original sources to identify problems.

It is extremely difficult to put a price on data quality. However, enterprises count it as one of the key benefits of an EPM solution. The following are some of the ways to quantify the benefits from data quality:

- calculating the time savings in serving regular data-extract requests from regulators/auditors
- estimating the reduction in write-offs and markdowns in inventory
- comparing actuals to same-period forecasts before and after EPM implementation to judge the accuracy of forecasts
- reducing financial auditing costs/efforts
- estimating the probability of adverse events and the cost of financial bankruptcy with reduced data quality.

Risk-adjusted performance management

Every organization has a specific appetite for risk. Risk could be financial or operational and is usually managed and governed by risk-management software and methodologies, which only accept projects or take actions that do not expose the organization to more risks than it is prepared to take, even for higher returns. EPM, on the other hand, manages the performance of an organization and is designed to drive employee behavior that improves financial performance (through incentives, plans, and budgets). Many vendors now offer integrated risk/EPM solutions, which help organizations grow business but without raising their risk profile.

For example, life insurance sales teams are typically incentivized to grow the number of insurance policies under management. Without measuring risk-adjusted performance, a salesperson bringing in a large number of smaller premium customers and another one with a small number of high-premium customers would likely be incentivized similarly. However, a risk-adjusted system in this case could tie in each customer profile with a risk score and help the organization design an incentive scheme that would favor the one who brings in the lower-risk demographic.

Higher management efficiency and faster decision-making

EPM solutions present a unified and consistent view of the consolidated enterprise, which is invaluable to management as they formulate strategy and make key business decisions. Areas of EPM, such as strategy management, are directly used by C-level management to align corporate strategy to execution. Other areas, such as operational planning, reporting, and data quality do not contribute directly to management efficiency, but underpin all management decisions. As a combined effect, enterprises deploying EPM report higher management efficiency and faster decision-making processes, but these factors are usually not priced as a quantifiable benefit.

ESTIMATING TOTAL BENEFITS

Total benefits

At the end of an audit, an enterprise should typically have a good idea of the total benefits, broken down by direct and quantifiable benefits, and indirect or intangible benefits.

Table 7: Calculating total benefits, Part 1 – years 0–5

Benefits	Year 0	Year 1	Year 2	Year 3	Year 4	Year n
Direct benefits (DB)						
Time saved on monthly planning	-	Calculate	Calculate	Calculate	Calculate	Calculate
Time saved on yearly close	-	Calculate	Calculate	Calculate	Calculate	Calculate
Time saved on IT tasks	-	Calculate	Calculate	Calculate	Calculate	Calculate
Direct impact on costs		Calculate	Calculate	Calculate	Calculate	Calculate
Direct impact on revenue		Calculate	Calculate	Calculate	Calculate	Calculate
Intangible benefits (IB)		Not priced	Not priced	Not priced	Not priced	Not priced
Total benefits	-	Add	Add	Add	Add	Add

Note: Savings shown are for demonstration purposes only.

Source: Ovum

CALCULATING RETURNS AND TRANSLATING RESULTS TO "BUSINESS SPEAK"

Deriving results

The outcome of estimating costs and benefits ultimately comes down to net cash flow, or the difference between costs and benefits in any year. If the difference is positive, then the system is financing itself that year. In general, enterprises' savings per year from EPM are lower than their per-year investment in EPM in the first few years. Ideally, costs should decline once the system is in operation, while benefits

should start kicking in and growing. In on-premises systems, deployment costs are highest in the initial years and benefits kick in only after the first year. Mathematically, this can be shown as follows:

Net cash flow in year n = benefits in year

Using the right project-financing metric

The results calculated in the "Costs" and "Benefits" sections can be used to determine various financial metrics, each suitable for a different selection problem. For EPM, enterprises are advised to select among the following metrics. It is important to summarize the entire assessment with the help of one of these metrics and communicate to business users and decision-makers the key value that an EPM solution will bring to their organization.

Table 8: Study results

Metric	Nickname	Meaning/significance
Profitability index	$PI = NPV/CF_0 - 1$	When selecting between different projects, all with positive NPV, ones with higher PI are preferred as they give higher return for every dollar invested in EPM.
Present value of total costs for ten years	$TCON = \sum (\text{cost at year } n / (1+i)^n)$	If the composite organization had to pay everything today in a lump sum and never spend another penny on EPM for the next 10 years, this is how much it would need to pay. Useful for understanding total costs.
Present value of total benefits for ten years	$TBN = \sum (\text{benefits at time } n / (1+i)^n)$	If the composite organization realized all the savings as a lump sum today that they would have realized over the next ten years after deploying EPM, this is how much they would get today. Useful for understanding total benefits.
Net present value if EPM runs for n years (NPVn)	$NPVn = -CF_0 + \sum CF_n / (1+i)^n$	Considering all costs and benefits for the next n years, a positive NPV means that investing in EPM will add this amount to a company's savings and earnings. Useful for shortlisting vendors from a long list.
Return on investment (5 years)	$ROI = PV \text{ of benefits} / PV \text{ of costs} - 1$ or $TBN/TCON - 1$	Total profit (benefits less costs) as a % of costs, or the total % profit after n years. This value signifies that considering the time value of money, every dollar invested in EPM will yield about ROI times profits after
Payback period	PbP	Years it took for the composite organization to break even, or years it took for the organization to recover its original investment.
Discounted payback period	DPbP	Same as payback period, but with adjustments for the time-value of money.

Note: i = discount rate, often assumed to be equal to the weighted average cost of capital for a company.

Source: Ovum

RECOMMENDATIONS

Recommendations for enterprises

Stress-test assumptions with vendors, IT services providers, finance, IT, and HR

Assumptions change cash flows significantly, so it is important that the person evaluating the costs and benefits of EPM research and test their assumptions with their vendor(s) of choice. Vendor inquiry should include discounts on list price that the enterprise might get and the cost of new hardware (server). If there is a preferred IT services provider, it can be worthwhile getting to know its "time and materials" rate for services such as deployment and training.

Internally, it is important to work closely with corporate finance and human resources to ensure that the financial assumptions are accurate. Points of inquiry should include estimates of the total annual compensation and rewards of an IT and finance employee, annual rate at which salaries grow, and the discount rate usually used for NPV calculations. In addition, it is worthwhile to check with IT if internal deployment capabilities, including the presence of in-house resources for deployment, development of applications, and training are sufficient to handle the deployment. If there is an internal chargeback policy in place, details of notional list prices for these services should be acquired.

Deploy in a systematic fashion

Enterprises that deploy in phases achieve profitability much faster. In other words, instead of acquiring all licenses at once, enterprises that acquire licenses in phases to capture low-hanging fruits achieve breakeven faster. This is particularly true for organizations that test the solution with a control group and capture the benefits of better data quality and automation before rolling it out to the entire user group.

Choose the right IT services provider

Most enterprises that engage third-party professional services firms for deployment and application development find that the choice of services provider is critical. Selecting a provider that does not understand the business well often leads to semi-successful deployments that do not deliver promised benefits. Ovum advises that enterprises choose a services provider recommended by the software vendor and one that has expertise in their geography and industry of interest.

Recommendations for vendors

Make the evaluation easier for enterprises

Most enterprises with which we have worked engage in a lengthy sales cycle before acquiring EPM, during which they engage in a study aimed at measuring the return on investment. To make their job easier, vendors are advised to provide ready inputs in these processes. One way to do this is to provide online tools that help enterprises build a cost estimate using deployment numbers and a prebuilt model. It is also important to follow up on standard RFPs with a costing exercise, with the right volume pricing breaks to help the customer make a decision.

Communicate the intangible and indirect benefits clearly

In many cases, enterprises evaluating EPM do not quantify its intangible benefits. However, it is very important that these be recognized by the deploying company. For example, it is difficult to put a price on data quality, but most EPM projects begin with a data quality initiative. Data quality underpins the value of all other EPM modules and should therefore be considered a primary qualifier. It is up to the vendor to communicate the value of such intangible benefits to enterprises to make their analysis richer.

Position EPM for competitive advantage

EPM makes an enterprise leaner and geared to maximizing shareholder/stakeholder value. It helps enterprises pick the right strategies and incentivizes operations to align with the strategic plan. To that end, vendors should position EPM as a tool for enterprises to gain competitive advantage over peers. Organizations that implement and use EPM optimally are more self-aware of their performance and its key drivers, which helps them sharpen their focus on a smaller number of goals.

APPENDIX

Methodology

- Ongoing briefings with technology vendors.
- Secondary research from annual reports, government departments, trade bodies, and industry regulators.
- Continuous ongoing research into business and technological developments in the BI and EPM sector.

Further reading

2014 Trends to Watch: Enterprise Performance Management, IT014-002809 (October 2013)

Fundamentals: Enterprise Performance Management, IT014-002874 (January 2014)

Definitions

Net present value: In finance, the net present value (NPV) or net present worth (NPW) of a time series of cash flows, both incoming and outgoing, is defined as the sum of the present values (PVs) of the individual cash flows of the same entity.

Return on investment: In business, the purpose of the "return on investment" (ROI) metric is to measure, per period, rates of return on money invested in an economic entity in order to decide whether or not to undertake an investment. It is also used as an indicator to compare different project investments within a project portfolio. The project with best ROI is prioritized.

Discounted cash flow: In finance, discounted cash flow (DCF) analysis is a method of valuing a project, company, or asset using the concepts of the time-value of money. All future cash flows are estimated and discounted to give their present values (PVs) – the sum of all future cash flows, both incoming and

outgoing, is the net present value (NPV), which is taken as the value or price of the cash flows in question. **Discount rate:** The discount rate used is generally the appropriate weighted average cost of capital (WACC) that reflects the risk of the cash flows in DCF. The discount rate reflects two things:

- **Time-value of money (risk-free rate)** – According to the theory of time preference, investors would rather have cash immediately than having to wait and must therefore be compensated by paying for the delay.
- **Risk premium** – Reflects the extra return investors demand because they want to be compensated for the risk that the cash flow might not materialize after all.

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We hope that this analysis will help you make informed and imaginative business decisions. If you have further requirements, Ovum's consulting team may be able to help you. For more information about Ovum's consulting capabilities, please contact us directly at consulting@ovum.com.

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