

# The Trade-off between synthesis and details in Corporate Performance Management

*Every time a Company needs to implement a planning process, it has to choose if requiring to the users very detailed information, in order to have a thorough result, or being satisfied with a synthetic data, having in this case a faster implementation. The choice is not simple and it requires to consider many aspects, often apparently external to the project.*

by **Mauro Pomer\***

During my professional experience I was personally involved in almost 50 budgeting projects and I realized that they have a similar problematic: the management of the level of detail to be used. The problem is especially in the Sales Planning process and in the Contribution Margin Area. I discussed with many Clients of many projects about the possibility to manage the higher level of detail (Client code, Product code) or to be satisfied with the management of the Client Group (groups per area, market, agent, ecc...) and the Product Families. The problematic is sensible since software vendor can somehow erroneously affect the requirements of the clients, based on the characteristics of the product that are trying to sell. The ones that commercialize products with some dimensional limits of the generated cubes ride the concept of the uselessness to manage a deep detailed level; on the other hand, the ones with no dimensional limitation in the products, try to convince their clients that the budgeting processes should be extremely detailed, and very often only to take advantages of the competitor.

In this moment, BRAIN FORCE, the company for which I work, commercializes two IBM suite products which have opposite characteristics: one allows a very efficient modularization but with some dimensional limit, the other one needs a lot of coding for the customization but it has an unlimited engine. For this reason, without any conflict of interest, I decided to contribute in a more logical and functional way than

technical one, basing my opinion more on the experience and mistakes that my clients did. I think it's not correct that the implementation strategy of the budgeting processes are more driven by the software characteristics rather than by the real needs and requirements of the clients.

## Synthesis or detail? Comparing cultures

Thanks to my experience, made on many international projects, I realized that there is a philosophical distinction between the European countries planning culture (Italy in particular) in which the detail culture prevails, and the Anglo-Saxon Countries, in which the synthesis culture prevails.

In Italy, the client average will always have to deal with the same level of detail of its ERP system (and in the reporting systems), even if this requires the typing of millions (even billions) of field in order to create a budget. The projects, also in middle-large companies, have a higher level of centralization in the Financial area of the company.

In the Anglo-Saxon Countries, the average of the companies believes that a planning project is effective, not based on the coarseness of the managed information, but when two other criteria are present: the number of the users involved and the frequency of the process repetition.

In Europe there is the perception that the reliability of the budget and forecast number increases with the increase of the details in it, in the Anglo-Saxon countries with the increase of the person involved in the planning operations and the number of times in which they do the revision of their data. The difference in the approach is considerable. The vision of the two hemispheres is to be considered at the antipodes.

I think that this philosophical difference can depend not only on the real needs of the companies, but also by the Stock Exchange influence, that awards the reliability of the forecast data. The institutional investors award the company titles on which they decided to invest and that have a good predictability. This difference can be explained by the different number of the public companies in the Anglo-Saxon countries (especially in the USA) that is higher than in Europe, especially than in Italy. I suggest a typical example that I had to deal with during the budgeting projects of the manufacturing companies. Suppose to have a company with 5000 clients, grouped by geographical areas (countries, regions, provinces) and about 20.000 products (SKU) grouped by product families and business units (in a ratio 20.000 to 200 to 3).

If the company wants to plan sales (on a monthly basis) with the maximum level of details, the generated cube has the following number of field: 53.570.400.000, calculated as the multiplication of 5.100 (clients and groupings) times 20.200 (products and groupings) times 13 (months) times 10 (average number of measurements like quantity, price, turnover and discounts) times 4 versions (budget, forecast, year, previous year). In the case the company would like to plan, on a monthly basis, a lower level of detail, the generated cube, will have the following number of fields: 10.400.000, calculated through the multiplication of 100 (market client grouping) times 200 (product families) times 13 (months) times 10 (average number of measurements like quantity, price, turnover and discounts) times 4 versions (budget, forecast, year, previous year).

The dimensional difference is so stressed (53 field billions versus 10 millions of fields) that the choice of the philosophy to use could be very easy.

The problem gets more complicated if the company decides to plan also the contribution margin, linking to the net turnover of the client-product, also the Cost of the Good Sold (COGS). In fact, very often, the definition of a product family COGS is very difficult because it will be required to calculate the weighted average of the COGS of the SKU based on the sold quantities, considering that the difference of the sold mix in the period of planning in relation to the last actual period.

How can this problem be solved? Can you give up the precision of a fundamental parameter as the COGS

in favor of a faster planning? Can you create huge system with the possibility to calculate the weighted average of the COGS with the possibility to modify the sold mix? If the choice is the second option, and very often it is like this, can the realized solution be used also to make monthly forecast or is it too complicated to be used only in the institutional budgeting period?

## The “Detail paradox”

If the choice is in favor of the detail, there is a phenomenon called “**the detail paradox**”. Suppose that the company decides to plan using a cube of 53 billions of fields and each field can take one second to be updated (a very short time). This means that to complete for example the budget of the sale, 13.392.600.000 seconds are required (53 billion divided by 4 version times 1 second for each field), that, considering a hundred of user, means 21 years to complete the process. How is this possible? Obviously, both companies and users look for faster solutions to implement the budgeting process, among these, for example:

1. they copy the data of the year before and modify only the ones that will change for sure in the budget;
2. they write the subtotal (directly or through “break-down” or “data spreading” procedures), modifying only the details that will change in the budget;

If the data of the year before are copied and it is possible to write the subtotal, which is the reason to have a maximum level of detail in the sale? Why the higher level of detail is required, if it is possible to find some “easy way” not to manage it in a second moment?

Would not be more reasonable to manage lower level of details? If you consider the COGS problem, we have the periodical problem of the loop (a dog chasing its tail). If I want to have an accurate management of the margin, I have to link the product cost in the budget (standard cost) to each single product, but if I want to plan the SKU sales, I will have to do it faster and for this reason, the sale data is not reliable. It looks like you have to decide to manage a reliable COGS based on not reliable sales data or vice versa.

Very often the conflicts that arise with the clients in the analysis and prototypical phase become bigger and bigger due to many structural elements that can be found in the companies:

1. it is very difficult that a controller has already performed a planning project with structured elements;

2. it is not very frequent that a controller knows how to manage and what contains a structured data base (data mart or data warehouse);

3. it is not very frequent (even if less than the point above) that in the IT area there is knowledge of the real business requirements that the controllers have;

4. the controllers that are extreme users of the excel sheets, know every pro and cons. When they can go beyond the cons by acquiring a planning products, very often they get excited by the “detail euphoria”;

5. very often the Master Files defined in the ERP system are not created with a planning process in mind;

6. the MRP modules of the most common and popular ERP system and are not created to be used in the planning processes; very often the choice to manage a higher level of detail do not depend on the controller’s will but on the one to be “always ready” to answer to any potential questions of the Propriety or of the Management.

## The interaction between ERP and CPM

Two very important concepts are the ones of the 5th and 6th point and in general the ones related to the influential level of an ERP project that is realized on a CPM project.

Personally I always believed that none of the ERP projects can be a successful one, if there is not a clear understanding of the Top level objectives to which the Client aims. The Top Level objectives of the Client are set through a Corporate Performance Management model that measures how far or close are the strategic objectives. In most of case, the CPM projects are assessed only after the ERP implementation has been completed. This means that an ERP project has not been designed considering the requirements for a CPM solution.

I will give you an example to show the interaction between the ERP system and a planning solution.

If a product Master Files has been defined considering the commercial perspective (and this is very frequent), the product families (SKU groupings) can contain product codes that have different COGS (with costs that differ for example within 10€ and 1.000€).

In this sense, it is possible to understand that the ERP product data has not been though considering the planning process, and it won’t be possible to work with average COGS of the product family and you will always have to face the dilemma of the detail paradox.

It is also true that with a not very balanced Master Files, it is difficult to explain to the clients that the best solution to manage billions of fields is to modify the management of the product families, since the impact on the entire company can be huge. What is more costly? The modification of a Master Files structure or the implementation of a “monstrous“ budget application?

You can answer this question only case by case and not in general. What is sure is that you should answer to this question before implementing the system.

## How to calculate the product cost

When dealing with a margin planning project, it is important to decide which engine use to calculate the product cost. You have to decide in which situation you can calculate the cost of the product, based on the data of the sales budget, by exploding bills of material and production cycles in order to calculate the standard cost of the product in the planned year.

There are two possible alternatives:

- you can use the MRP module of the ERP, with all its potentialities and limitations, as the long time of calculation and the impossibility to calculate the product cost in real time;
- you can develop an ad hoc engine by using the CPM technology, with its simulation potentiality and a faster calculation process, but you have to manage a hard implementation and considering that the OLAP technology is not indicated to manage bill of materials and production cycles.

In reality there are two other ways, that can be performed taking a philosophical choice:

1. if there are very homogeneous families, you can decide to manage planning bills of material in an aggregated way, but it allows to capture only the macro phenomena;
2. you can decide to implement external production planning system, that can substitute or share the MRP modules of the ERP. These tools are very fast in the calculation and they can be used in the planning processes also in an easier way than the classic MRP.

Summing up: the paradox of the detail has not an easy solution and it is a very multifaceted problem.

You can not consider and analyse it taking only one

face if you are projecting a Corporate Performance Management solution.

### Strategies to face up the “Detail paradox”

But how can you overcome this problem? There is not a unique solution, otherwise everyone will use it, but you can choose within many expedients to use.

1. The consulting – implementation partner has to be a professional and expert one in these kind of project. It's easy to say “Yes, we can do it” to the Client, but you have to consider that you can not implement a not manageable application that has been created on the requirements of the Client. The implementing partner would have to bear the client, admitting that some requirements are impossible to be implemented.

2. The consulting – implementing partner must know very well the technology in order to adapt it in situation that are not the vendor's best practice. It seems odd, but very often in the market there are companies that use the available platform in the market and the consultants are not very prepared in the technological field.

3. The companies that want to implement the budget solutions should consider that there is no more time for autonomous subsystems that cannot be maintained in the future. A planning project is the sum of all the controlling areas in the ERP system. If you want to have a good result, you should consider the CPM solution impact on the ERP system and vice versa.

4. There is another organizational issue: the calculation of the standard cost of the product. Should it be defined as a phase of the budgeting process of the company or only as a preparatory moment of it? So, should we have a distinction between the operative industrial budget and the “company finance” budget? Is it the same distinction between the industrial controller and the financial management controller?

5. The companies should also consider that it is easier to complicate a simple model than simplify a complex one. The suggestion is to start in an easy way, so that the company gets used to a new process and tool, and then year by year works on the system to reach higher objectives.

6. The company can also decide to manage the higher level of detail, but it has to consider the impact that it has on the application performance. How many times projects fail because the solution is so complex that can not be used, since the reaction times are so long? The

performance failure is one of the typical motives for which companies decide to simplify the more complicated modules...so let's think about it earlier.

7. The CPM models must be effective and also maintained during the time, without causing many problems to the consultants that have created them. The simplest the model, the easiest the possibility that someone inside the company can manage it.

8. If the arrangements of some aspects of the ERP brings advantages to the planning solution, than it is better to do it. The companies should always look forward. The best scenario is when the internal information system of the company can do it.

9. A clear choice between the synthesis and the detail is not mandatory. The majority of the tools of Business Intelligence allows to segment the clients-products margins based on static criteria, for example the 80-20 rules. Today, also this segmentation is used for analysis and reporting: why can not it be used to fill Master Files during the planning process, focusing the developed application only on the more important area?

### Last consideration

Personally I think that a control model should be developed in order to align the vision and the mission of a company with the objectives of it. I think that the Balance Scorecard (in the Norton and Kaplan concept and not only as a indicator tool) will prevail. If my prevision is correct, the planning system should be adequate to the methodology that, for its nature, is more oriented to the synthesis than to the detail.

I think that in the long term, companies will have to plan the actions to be taken in the following periods, rather than to generate thousands of number, in order to reach the objectives set by the shareholders. I think that the CPM projects and solutions should be oriented to the workflow in order to calculate the impact of the figures on the company. This will determine if an action will be taken or not.

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