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*Is there a sense to fight for 1% forecast accuracy increase? Is the play of improving the forecasting process worth the candle? We are convinced, it is, regardless of the numerous bypass techniques to compensate for the forecast error. It is important indeed to take the first step in business process correctly. Here is what in our opinion most businesses should start, continue, and even end with.*

## 10 Practical Tips On How To Improve Forecast

What's the probability that stepping out of your house some morning you'll see a bunch of dinosaurs passing by heading South? ... You guessed correctly! There's a 50/50 chance: either you'll see them or you won't. That's a joke. For many businesses the forecast accuracy (i.e., the probability that the forecast will be equal to the actual result) is lower than 50%; for many it is higher. Even though in your particular organization the forecast accuracy might be good enough, it's nowhere near 100%. Unless you've received a government contract to build 1 (one) ballistic missile submarine.

Almost every forecasting consultant will start his training course saying that forecasting is always wrong, followed by a victorious look at the audience. Well, he will be right. It sounds like the final verdict. After that many managers will perceive the forecasting situation, no matter whether it is good or bad, as a diagnosis that can hardly be reconsidered. You will be told that there are many ways to bypass the stumbling block of the forecast in order to efficiently control inventory, costs, cash flow, and profitability. We know. We walk these secret paths ourselves. But today we would like to suggest you stop for a moment at the very first step of the business process - forecasting, and find out whether it makes sense to fight for forecast improvement, and, if so, then how to do it.

In one of the organizations the author was lucky enough to work for some research was done. Its outcome had proved that a 1% forecast accuracy increase would result in a 560,000 euro yearly net saving. The play is worth the candle, isn't it? Should this amount be even 5-10 times lower, it would still be sufficient to sup-

port a team of bright, happy and enthusiastic people, dedicating 100% of their working time to forecasting. The amount would be sufficient to pay bonuses to the managers of these people, and probably even to the managers of their managers. Just 1%. Next year this bright team would secure for you a qualitative breakthrough in forecasting. Really.

Today we offer you 10 practical tips to help you create the conditions for forecast quality improvement and accuracy, resulting in lower inventory, sped-up inventory turnover, and increased service levels, which will naturally lead to higher customer loyalty, enlarged market share and the increased profitability and value of your business.

**1 Create a team of dedicated forecasters.** Accurate forecasting requires a team that will work exclusively on this one activity. It is quite probable that you will need to temporarily weaken other departments by offering forecasting jobs to your brightest analysts. It is reasonable to have people on the team who know your business and feel its specifics with the tips of their fingers. Diversify the team but favor the guys who love crunching numbers. If internal resources are scarce, employ experts. Invest in them. Set achievable goals and motivate personnel based on KPI's reflecting the very specifics of the forecasting process. Don't punish forecasters only because other processes within the organization are still imperfect.

**2 Forecasting is a process.** Consistently follow the right sequence of events and actions performed by the internal and external participants.

- Make sure the product forecast in value is

linked to and synchronized with the sales forecast. Neglecting this link results in a distortion of financial results, inventory problems, permanent fire fighting, and exchange of fire between departments.

- Make sure all the relevant information which may affect the forecast is well structured, correct and available. As experts we are convinced, there is no such thing as unnecessary information if it is relevant.
- Shorten info preparation time and optimize info flow, avoid info idle time and “black outs”. Synchronize the information flow.
- Make sure the prepared forecast is accepted by all departments and people involved in the process, as well as by those for whom the forecast is inbound information, suppliers for example.
- Make a thorough forecasting process map indicating all the participants, actions, communication nodes, etc. (In a future article we will try to share with you the unique and super efficient process mapping technology which we use ourselves). The knowledge and processes should remain in your vault even if people leave.

**3 Data and statistics are the key success factors.** One of the reasons for low quality forecasting is the usage of low quality data.

- Thoroughly check incoming information, don't compromise.
- Work with prime and original data. Avoid info based on expert judgment, it may be very subjective, unless your own independent conclusions will be permanently quite similar.
- Wherever possible automate the info generation process in order to avoid human errors.
- Compare apples with apples.
- If necessary create new info streams in your organization.

**4 Update the forecast frequently.** This measure will improve forecast accuracy.

- Update the forecast each time incoming data have been revised. Make it as often as common sense and processes require.
- Inform all involved parties about changes.
- Communicate timely and clearly the critical amendments.



**5 Correctly define the forecasting horizon.** Group all SKU's by complete replenishment lead-time. Freeze the forecast per SKU or product group not earlier than really necessary. In the meantime, keep on updating the forecast until new numbers will not have any effect on inbound volumes to be shipped. Forecasting is an art, your view is constantly changing, and it should be reflected in the forecast. Analysis of corrections is important for understanding the factors influencing forecast decisions.

**6 Enlarge forecast and group products.** Practice proves that larger volumes demonstrate lower forecast error. If there is no necessity to provide a detailed forecast by SKU, for ordering the components for example, then group them.

**7 Split product range by buckets of importance.** Apply ABC classification. As a rule, 20% of SKU's generate 80% of sales volume. Focus on the most important things by volume, profitability, merchandising activity, product life cycle. Spend 80% of your time on these. Try to simplify and automate forecasting for the least important products. Free up your time for fine tuning the forecasts for important items and groups.

**8 Consider cannibalization effects.** Analyze the behavior of the whole product portfolio. Performance of similar products or items sitting in the same price niche, new product launches while selling discontinued ones, and so on, should all be carefully considered while forecasting. Forecasters should send right and timely signals to the business if the number of such events becomes worrisome. No doubt these guys with the right mind set will give a lot of useful hints.

**9 Assess the forecast accuracy as well as the quality of the forecasting process.** Introduce a set of key performance indicators:

- Develop forecast accuracy measurements and collect these statistics regularly. In principle what is important here is not complexity of measurement, but balance and consistency. The necessary depth of the analysis will be worked out naturally in the course of time.
- Compare your results against competitors, if you can, and the industry. Your success should not lower your enthusiasm and aspiration for further improvements. Recall the 1% effect. You know how to spend savings.
- Set achievable goals in forecast accuracy. Recognize and appreciate the success of people who demonstrate good results. They will help

you.

- Carefully observe and study the interaction between all participants, locate shortcomings and eliminate unnecessary elements of the process. Meet all involved people and explain the logic of your actions, help them to see the whole picture, convert them into partners.

## **10 Use a system approach while considering a system forecasting solution.**

Development of an in-house system solution makes sense if you observe the expected dynamics in forecast quality improvement. It means that you already have what no one out-of-the-box program will substitute: the right people driving a well-tuned process. But if you still decide to invest in a commercial forecasting product, we recommend:

- Don't think that product quality is guaranteed by its use across the business community and by a list of recognized names among its users. Every company has its own unique specifics. You are responsible for your results and nobody else.
- Ask the service provider to prepare and show you the forecast for the period for which you already know the actual results (back casting). Naturally, don't share the results right away.
- Provide the supplier with all necessary input data
- Exclude items the forecast for which depends largely on expert assessment.
- A calculation algorithm should be, if not simple, at least clear and transparent to your own forecasting experts. Otherwise future system support and training will demand additional resources and excessive dependence from the service provider. Weigh all pros and cons carefully.

Some companies who use forecast accuracy results in their industry or the ones of their rivals as a benchmark tend to stop exploring new opportunities in forecasting as soon as they overperform their competitors. Let's assume that estimation methods and input data were comparable. Unfortunately, in most cases these achievements will just prove to be acceptable but still not the optimal. You reach the optimum when changes in technology, process improvement efforts, and investment in human resources do not pay back anymore with the targeted forecast accuracy increase. In other words, stop when marginal expenditures associated with forecasting process improvement will become higher than marginal gains from these activities. But keep on supporting the forecasting research further.

These 10 practical tips will allow your company to

take the first correct steps in the process of setting up the right approach to forecasting. Of course, much more can be suggested, and additional measures should be taken to compensate for unavoidable forecast errors. We will continue to address this subject in future articles. Read our publications!

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*We also apply to those who are eager to improve the forecasting process in their organizations. Do not hesitate to write, ask questions, and share the cases you are solving. We will try to help! We are open for contacts and interaction, and that's what we value.*

### **For the previous issue please check the archive on our web site:**

№1, 26 Nov 2008 - "10 Practical Tips On How To Efficiently Reduce Inventory"

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Econia Analytics is a partnership of Supply Chain experts. Our core competence is optimization modeling, simulations, risk analysis, end-to-end process conditioning by using quantitative techniques, complex projects as well as overnight solutions.

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