Data analysis complements gut feeling

Presenting the business reality on the screen to enable informed decisions: this is the goal of business intelligence (BI). In concrete terms, this means, you transfer the real world of the company into the digital world in order to receive impulses for the real world from the digital world. The advantages over manual procedures are speed and independence of location. But business intelligence solutions can only be as good for the company as the data they use. The human factor is therefore of utmost importance. *By Marcus Winkler*

Many people make decisions for the company out of gut instinct – both at the operational and the strategic level. But relying solely on gut feelings can be just as fatal for managing directors and department heads, and also for clerks, as making decisions based solely on numbers – even more so if there is already a problem with data collection. We know from our day-to-day work in the field of business intelligence that valid findings based on data usually complement gut instinct. But there are also situations in which you have to replace the latter, because the gut feeling is usually based on personal meetings and on-site presence. A company with locations in different countries can do this just as little as a decision maker who has to work from home.

When the gut feeling is disturbed

In March 2020, many decision-makers had to go to the "home office" on a moment's notice and rely on the facts and figures that were made available to them by their various systems. Walking through production, looking into the warehouse and the vehicle fleet was no longer possible, as was the spontaneous exchange of ideas about small and large problems in the departments. In short: the gut feeling was clearly disturbed.

Particularly at the beginning of the corona pandemic, special challenges had to be mastered: employees were sent on short-time work, delivery bottlenecks occurred, machines were not used to capacity or production had to be converted. The changed reality made it clear to many companies how important good data acquisition and evaluation is. And it is probably clear to all of them that data alone is practically worthless unless it is prepared and analyzed in a suitable form, so that decision-makers can draw conclusions from it. Metaphorically speaking: the real world has to be transferred as clearly as possible into the digital world, because if the picture is too blurred, decisions also become blurred.

On the way to a clear view: case studies
Case study 1: The SISO principle ("shit in – shit out")
Any business intelligence solution, no matter how well thought out, is useless if the data is not correct. This is what happened in a manufacturing company where manufactured assemblies and articles were actually brought into the warehouse, but the corresponding stock postings into the system were neither continuous nor timely. At the same time, the workers responsible for the scanning did not know what the consequences would be. During the inventory it finally came to light: the reality in the

| Reality analog | Reality digital |

In companies, the "picture" often becomes blurred during the transition from the real to the digital world. Clear information is needed to gain insights and take appropriate action. Otherwise it becomes fuzzy. Picture: FTSolutions

real world (warehouse) did not match the digital reality (IT system). There was a difference in the seven-digit Euro range, which according to the system should have been there. In addition to the fact that a planned investment for the renewal of the sanitary and break rooms for the staff could not be made, there were daily searches and permanent inquiries from the dispatchers as to how much inventory was actually available. Thus the consequences hit the responsible workers directly. Therefore – whoever has the task of feeding the databases should at least begin to understand the benefits and effects of these data, that they are the basis for important decisions in the company and thus also directly influence the job itself.

Case study 2: More time for the actual tasks
The clerk in the purchasing department of another company regularly had to compile a list of open orders and forward it to controlling. Every week she invested about two hours of her time for this, but basically did not know what the data was needed for. When we asked the controlling department, it became clear that it would be added to another list to give the management a liquidity preview. Thanks to an individual business intelligence solution, both the purchasing clerk and the controlling specialist were able to stop keeping the lists by hand and concentrate better on their actual tasks.

Since then, the liquidity preview for the management is only one click away. The clerk now also has an overview of outstanding deliveries in her area of responsibility available on demand – another gain in time and an opportunity to act more quickly.

Case study 3: Gaining an overview – regardless of the location
The production manager of a manufacturing company saw on some of his machines how partly processed material piled up, some of it had been lying around for weeks. In order to get to

the bottom of the "traffic jam", he had to laboriously get an overview. Apart from the time required, an on-site presence was also necessary – and, as we painfully experienced in corona times, this is not a matter of course. With a dashboard individually tailored to this topic, the production manager can now obtain an overview in a short time and intervene much faster, regardless of location.

Business intelligence thought differently
Successful business intelligence solutions build a bridge between IT and business users. IT systems – including ERP or MES – and financial accounting deliver data. These are extracted, combined and enriched by BI tools across systems to obtain information from which the business user can draw conclusions and derive measures.

The problem is usually: the IT specialist does not know the needs of the business user and the business user does not understand the challenges of IT. Therefore the solution cannot be purely technical. Rather, it requires a "translator" who on the one hand knows what is technically possible and on the other hand understands what the business user needs.

The purpose is decisive
As a rule, customers come to us with supposedly precise requirements, but they don't really know the purpose. They then usually formulate these requirements as they are used to: frequently it is a matter of creating a wide variety of lists, as in the case of the purchasing clerk in case study 2. If we had stuck to their request to create an automated list for open orders, we would have found a solution for the clerk alone, but not for the entire company. The question of purpose is therefore crucial – and should be considered at the beginning of every solution. Two examples of benefits should illustrate this.
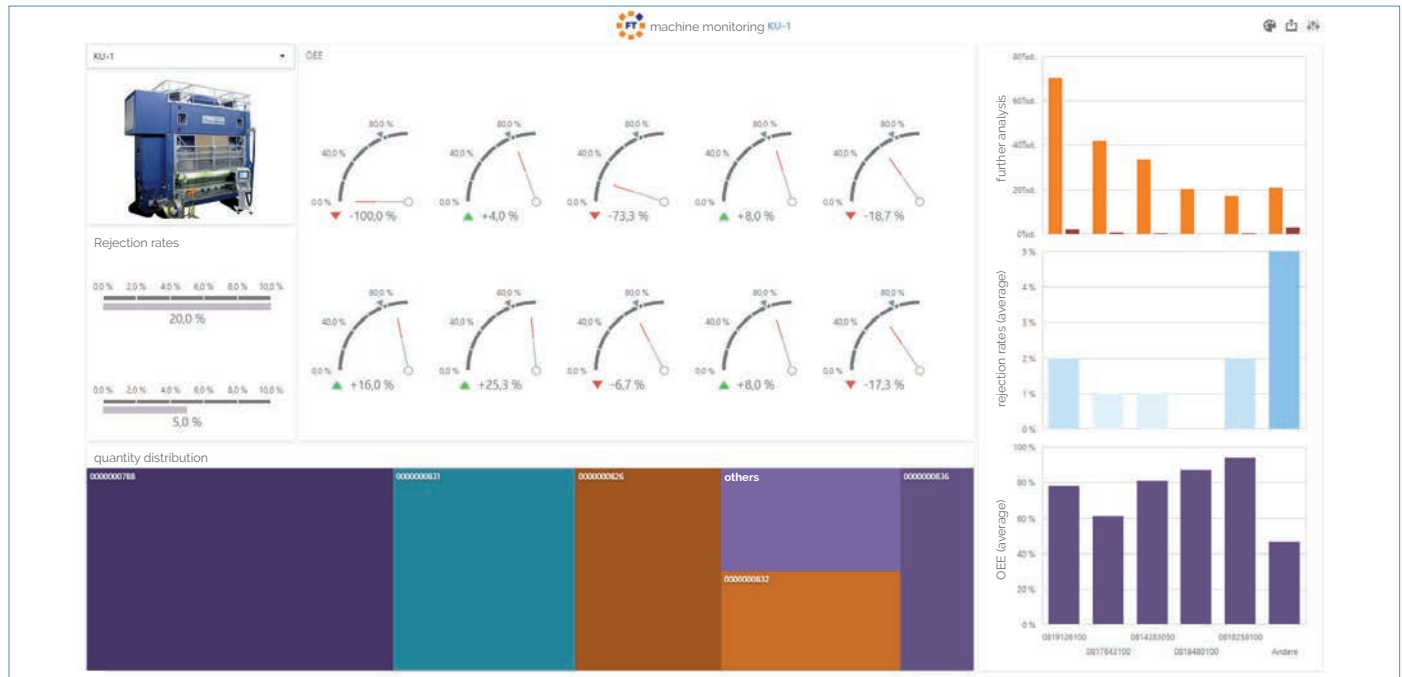
The production manager of a manufacturing company can get an overview and intervene much faster through an individually tailored dashboard – regardless of location and within seconds. Picture: FTSolutions

Work in progress – making reality visible on screen

Request: The production manager would like an overview of work in progress (case study 3) …

Benefit: … to reduce inventory and waiting times and to prevent unnecessary work.

Sales analysis – making the invisible visible

Request: The sales manager wants to recognize quickly which product group is behaving conspicuously …

Benefit: … to initiate sales measures and to purchase and produce according to demand.

Investing and saving costs

Many entrepreneurs are afraid – not only in these uncertain times – of supposedly large expenses that can arise from the use of a business intelligence software. In their minds are pictures of many consultants, unmanageable costs and overwhelmed employees.

And it is precisely this idea that prevents many small and medium-sized companies from taking the first step. Many activities can be automated via a BI tool, that today employees have to do manually to make data from the company visible. This alone results in a return of investment (ROI). In addition, a BI tool gives the company more flexibility: data is centrally coordinated and kept up-to-date so that decision-makers can concentrate fully on evaluations and analyses.

Instead of tediously gathering data, managers and other employees with non-technical backgrounds have access to reports at short notice, so that they can concentrate fully on their actual work.

Conclusion

A good business intelligence solution boosts knowledge in the company and drives success – and is always as individual as the company itself. For a provider of BI solutions, this requires that you focus intensively on the benefits for the customer and do not remain stuck with the formulated wishes. That you don't just focus on the technology, but that you get an all-round view in order to deliver the optimum for the customer.

Furthermore, it makes sense to get everything from a single source, from the process to be evaluated to the analysis, in order to keep time expenditure as low as possible. And then it's up to the company: from classic reporting to a self-service BI tool to data analysis without intervention from the IT department, there are many ways to increase knowledge in order to manage the company more successfully. The gut feeling is supported, the IT is relieved! ◆

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