| | | |
|---|---|---|
| **Project Name:** | Globalization, Presentation and Standardization of Key Performance Metrics | |
| **Presented by:** | Paul Aschmann | |
| **Plant:** | AKsys USA, Inc. | **01/29/2009** |

**Introduction**

IT can provide and does provide useful data to many people within our company, however, many of our managers (at the plant level or department level) don't have the IT experience or time to learn large systems like SAP to retrieve the data, export the data, run analysis and report these to the key people. Currently we have hundreds of people around the world within the AKsys group creating large amounts of data, but often, few people have the skill to use all the data everyone is creating, and even more often the skilled people who see this data are not necessarily managers or decision makers who can use it to our company's advantage.

The reason for this project or suggestion is to bring information to the right people - the people who have the insight and knowledge in their particular field of expertise and use this data to make good business decisions.

My suggestion or solution to solve this problem is to create a set of common and well defined Key Performance Metrics or Indicators (KPI's) for each plant within our group to share, report and track performance. These KPI's will be available in real-time from any desk within our organization in a graphical, simple to use and understandable interface – a dashboard of sorts.

**Concept**

Key performance metrics and indicators can provide a quick, insightful view into the performance of a business. However, each employee in our business has a different opinion about what a KPI is to them, I.e. A Production Manager may want to know what the average downtime is for the week and average line speed. A General Manager on the other hand would like to know what the average Labor Cost as a percent of Sales, Daily Sales, Forecasted Sales, and so on. A MD on the other hand would probably want to know more financial metrics like total value of the groups assets, total Group Sales, group Forecast, all at a organizational level. All the data mentioned so far are available today inside our system in a centralized format, we just need to display these figures to people easily so they are more inclined to use it.

My vision for the KPI's would be for the people to have access to the data as transparently as possible. I.e. Plant Managers in the US can see the Key metrics of Plant Managers in Bielefeld or Worms. This will encourage competitiveness between plants and it will also make the plants strengths and weaknesses visible, hopefully leading to plants helping one another to succeed.

I am sure there are a lot of these KPI's currently being reported and these would be the foundation to the program. In order to define the revised KPI's we would request a list of currently used KPI's within our company and we would pick between 4 and 7 of these per department at a plant level, a global level and Executive level. The diagram below shows the flow of Key Data/Metrics and Indicators with relation to the hierarchical structure of our organization.

*** Examples of possible KPI's**

**Executive Level**

| | **Controlling** | **Finance** | |
|---|---|---|---|
| | Total Value of Assets | Total Revenue | |
| | | Operating Profit | |

**Global Level – Department Heads**

| **Global Manufacturing** | **Global Sales and Distribution** | **Global Quality** | **General Manager** |
|---|---|---|---|
| Average Throughput by Plant by Line | Lowest On Time Delivery by Plant | Internal Quality Cost by Plant | Month to Date Sales by Plant |
| Top 5 Quality PPM by Plant | Daily Sales by Plant | External Quality Cost by Plant | Total Sales by Plant |
| Total Inventory on Hand by Plant | Customer Quality Issues by Plant | Customer PPM by Plant | Forecasted Sales by Plant |
| | Average Freight Cost by Plant | | Manufacturing Overhead MTD by Plant |
| | | | Avg. Product Margin by plant |

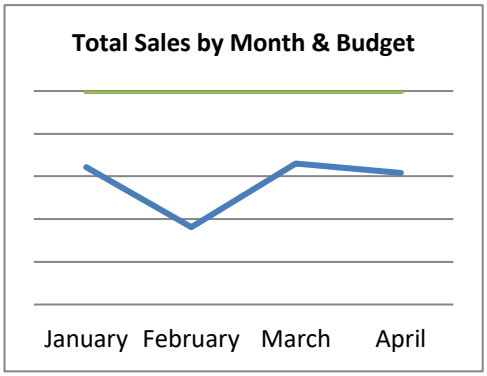
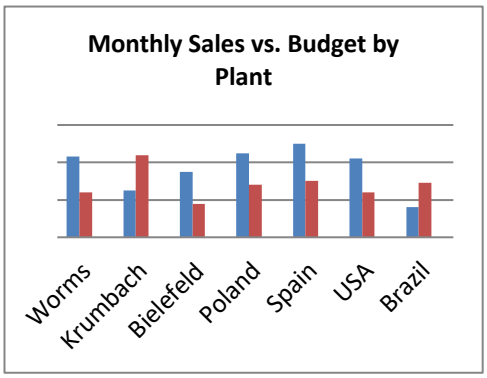
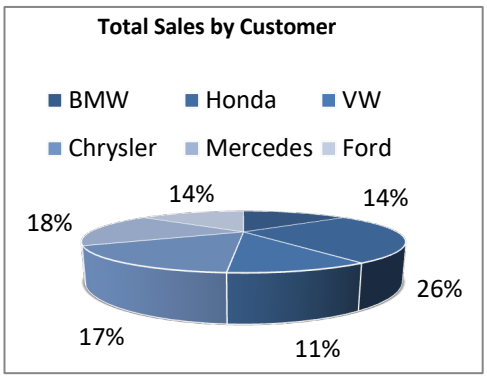
**Plant Level – Managers**

| **Manufacturing** | **Sales and Distribution** | **Quality** | **General Manager** |
|---|---|---|---|
| Average Downtime per Line | On Time Delivery | Internal Quality Cost | Month to Date Sales |
| Average Throughput | Daily Sales | External Quality Cost | Sales by Day |
| Quality PPM | Customer Quality Issues | Customer PPM | Forecasted Sales |
| Inventory on Hand | Average Freight Cost | | Manufacturing Overhead MTD |
| | | | Average Product Margin |

Data Source: SAP, Manual Entry, External Systems

Data Entry: Simple easy to use direct interface

**A visual example of a single Sales KPI**

| Data Source | Level | Example |
|---|---|---|
| **Total Sales vs. Budget for the Group** | **Executive Level View** |  |
| **Monthly Sales vs. Budget by Plant** | **Global level View** |  |
| **Total Sales by Customer** | **Plant level View** |  |
| | **Data Entry Level** |  **SAP or Manual Entry or DataSol or ?** |

As mentioned Phase 1 of the project would focus on our core business areas and phase 2 could include (Examples):

| **HR** | **Finance/Controlling** | **Maintenance** |
|---|---|---|
| Labor rate as a % of sales | Open Payables | Total Downtime |
| Employee turnover | Open Receivables | Average Repair Time |
| Employee Satisfaction | Revenue | |
| | Budget | |

These KPIs would be defined by department managers and would be used globally so that an "apples to apples" comparison can be made. All details pertaining to the KPI will also be documented, i.e. How to calculate the KPI what is included and what is not. Generally "grey areas" are the biggest problem with any form of reporting. Hence, each KPI or KPM would be defined clearly and in business terms that the entrant understands.

**Realization**

In order to turn this concept into a reality my suggestion would be to assign 1 "key talent" to each aspect of the project. For example – One Quality Talent, this person would decide (with collaboration) from other quality managers and process engineers what 5 Key Metrics should be tracked, they would also define the scope of the metrics, where and how the metrics can be gathered and if the metrics exist today. In this case to cover our core business areas my suggestion would be to assign 5 people to the project –

- 1 Manufacturing Expert
- 1 Quality Expert
- 1 Distribution Expert
- 1 Sales Expert
- 1 IT Expert

The KPI's would essentially be a Business Intelligence style of application. It would be accessible via a web browser within the companies intranet. I.e. Any PC in the company, no special software or systems. See Figure 2.1 as an example of a manufacturing dashboard and Figure 2.2 as an example of a financial dashboard.

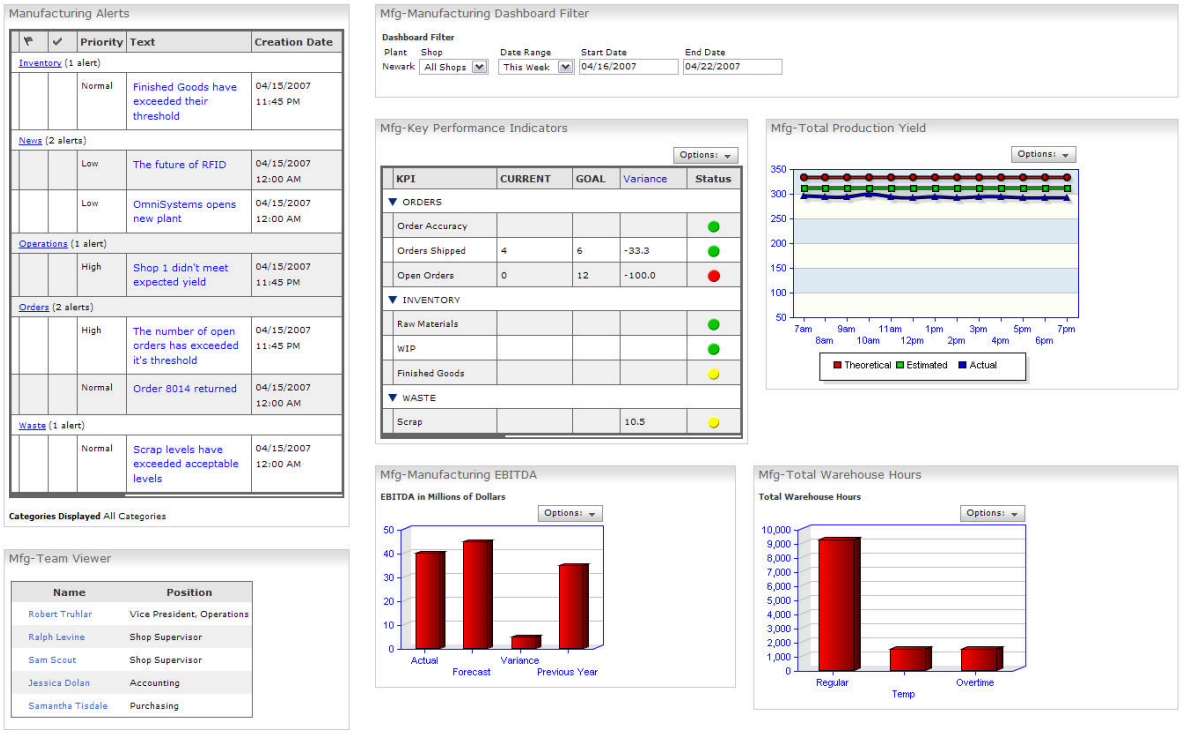



Figure 2.1


Figure 2.2

**Project Advantages**

Advantages of implementing a reporting/dashboard tool as described above is that it can provide decision makers with key information in a very easy to read format without doing a lot of work. These KPI's can assist managers in being proactive rather than reactive. Currently to produce such a Metric overview of our organization it would take our employees days of gathering data, merging result sets and organizing the data into understandable views. This project would reduce work load, save time and provide useful insights.

**Project Timeline & Costs**

The project would be split into 2 phases – Phase 1 would be core business requirements. I.e. KPIs related to manufacturing, quality, sales and distribution. Phase 2 (if phase 1 is successful) would be to additional departments to the program, including HR, Maintenance, Finance and Controlling.

The project would take an estimated 6 - 9 months to complete. This would be for each expert to collect, design and define their relative KPI's or Metrics at the plant level. And then global/department managers or heads would do the same at their level using the key data collected at the plant level.

From a cost perspective the project would not be expensive. A central data collection server would be required along with some charting software. My role within the project would be to program and collect the data sets from SAP or any other data source for display. From a general budget standpoint +- $10,000.