

# Right information at right time matters

With a robust and reliable understanding of costs and profitability and their sensitivity to changes in demand, manufacturers can make informed and incisive decisions about strategy and tactics, writes **Sanjay Mehta**



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**W**ith increasing competition and ever more demanding customers, manufacturing is never easy. While factory floor automation has significantly improved all areas of processing for manufacturing companies, it has also created a staggering amount of data. There never seems to be enough time or resources to meet the needs of factory managers who face the 'fact gap' that exists between the data and the usable information required to make real business decisions.

Agile enterprise is always one step ahead of the competition, which cultivates a responsive environment and delivers major improvements in lead time, product quality, and lower production costs.

Optimising performance requires managers to have an in depth understanding of how products and customers consume resources and this is why manufacturers adopt more sophisticated cost and profitability analytics - solutions that go beyond production and include the supply chain, support functions and infrastructure.

### Better insights

With a robust and reliable understanding of costs and profitability and their sensitivity to changes in demand, managers in manufacturing are able to make informed and incisive decisions about strategy and tactics. They adopt Business Intelligence (BI) reporting & analytics software as part of their strategic approach for attaining their goals. They streamline the information flow both across the organisation and through the tiers of the supply chain to reduce cycle and manufacturing times and adapt quickly to market changes.

Reports generated in high data volume environments normally take a long time to run. To speed up report generation, many systems use tools that employ a summarisation technique to reduce the amount of records by aggregating records together with common characteristics. Problem with this technique includes

### BI helps companies to:

- Increase the value of customer relationships
- Respond quickly to changing markets and company sensitivities
- Accelerate new product time-to-market
- Reduce inventory investment
- Improve planning, scheduling, and the procurement schedule
- Maintain and develop quality assurance
- Select and apply world-class technologies.

Manufacturing MIS		
Material requirements planning(MRP)	Manufacturing resource planning (MRPII)	Just in time (JIT) inventory system
Determine when finished products are needed	Network scheduling	Inventory and materials delivered right before usage
Determine deadlines accordingly	Improve customer service and productivity	

inherent inflexibility and inability to cope with the constantly changing information needs of manufacturing.

BI gives manufacturers a better visibility of their financial performance and the insight and understanding to improve it. These include solutions for cost and profitability analytics and solutions for operational planning and budgeting. Being able to quickly assess the impact of internal and external changes, BI helps such companies become more agile and better able to keep the bottom line on track.

### Areas of concern

Certain business aspects are prime concern areas for the manufacturing sector; these include having a bird's eye-view of customer information which helps sales team to coordinate and collaborate customer interactions. Manufacturers also need to trace the metrics and indicators that improve customer satisfaction. Another area of concern is the lead time to fulfil customer orders across sales and distribution channels. Moreover, companies need to improve "order promising" (i.e., when a customer is promised delivery or issue resolution) through analysis of historical statistics, expected lead time, and inventory levels. Obviously, they also need to analyse current usage of products to go for a new range of products. They

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need a good tracking service to be able to better predict and prepare inventory and production levels. Importantly, manufacturing companies need to continuously benchmark distributors, regions, and individual locations against each other in an attempt to foster increased attention to goals and metrics, as well as reward high performers and aid underachievers.

In order to overcome these issues, manufacturing organisations need to maintain optimum level of inventory so as to avoid overstock / short-supply and bring innovative and profitable schemes at marketing level. Business intelligence is the right tool that will help in achieving this.

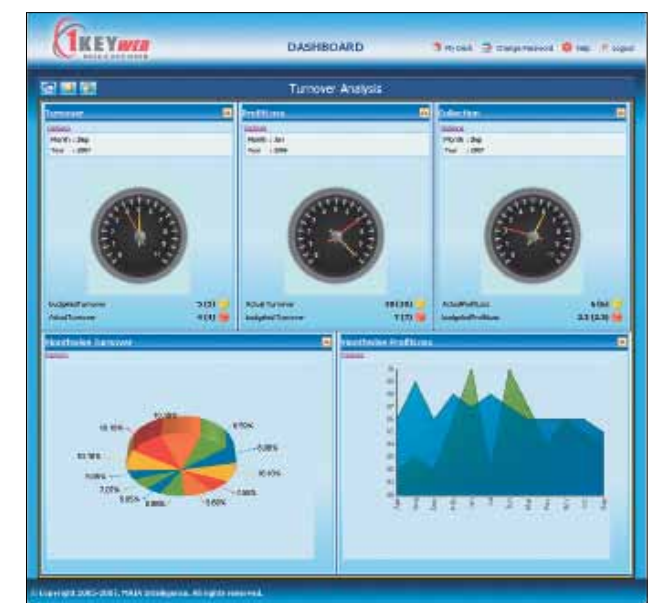
BI helps in keeping managers updated / equipped with state-of-the art and exact information that helps in taking critical business decisions rather than going on assumptions. It helps improve visibility and communication across increasingly complex manufacturing supply chains, while satisfying customer demands for new products as well as product enhancements. Very importantly, the relevant information is available at the right time.

### BI increases flexibility with the ability to:

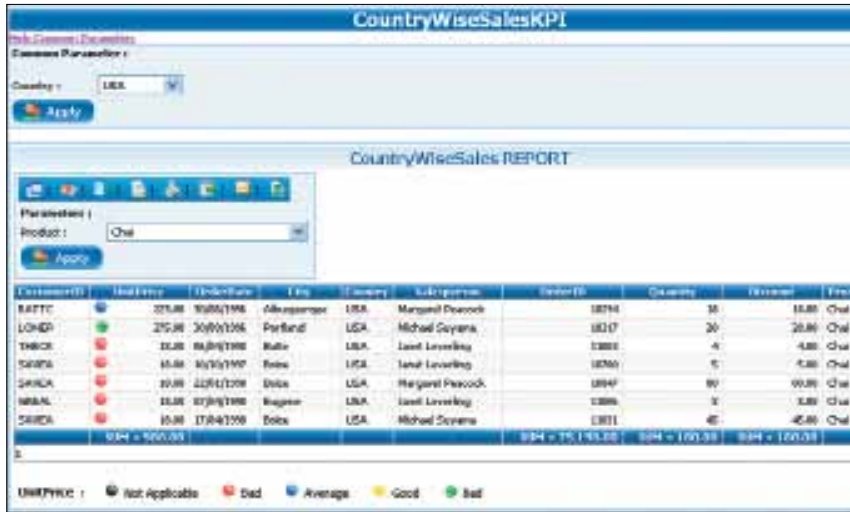
- Quickly generate established reports
- Easily create ad-hoc reports
- Isolate specific problems
- Analyze data across multiple systems
- Integrate new data sources.



Dial gauge that shows various aspects of the turnover



Dashboard showing turnover



Dashboard showing country wise sales report

“Manufacturing organisations need to maintain optimum level of inventory so as to avoid overstock / short-supply and bring innovative and profitable schemes at marketing level.”

## Decision making

With BI, one can assess cash-management and monitor operational effectiveness of the payables department to ensure lowest transaction costs. It is essential for a manufacturer to identify most profitable customers, products, and channels, and understand profitability drivers across regions, divisions, and profit centres. This requires a comprehensive approach which includes improving inventory management for those products that consistently fall into backlog due to a lack of appropriate stock levels. It is very important for the company to have visibility into inventory activities to minimise unnecessary expenditures and optimise inventory to conserve working capital. Equally important is having a detailed visibility into direct and indirect spending, and identify opportunities for consolidation and reduction of costs. Moreover, the company needs to

continuously monitor price, delivery, and product quality to determine best - and worst-performing suppliers. All this is possible with BI.

BI can be accessed by top management who need to obtain strategic information that can help them decide the future course of action, help in taking strategic decisions. Manufacturing industry need to look out for a solution that can help it lower lead time, help in reducing production costs, improve product quality, better tracking and improve customer satisfaction. It needs to respond quickly to changing market environments. In the current environment delivering the key information to the key people has gained extra importance that can help plan for production, reduce hidden costs, keep optimum level of inventory, and maximise profits.

Changing customer and distributor requirements, internal operations

demand an optimal way of decision making by the manufacturer. Each manufacturer has its own processes, own tacking system, order processing and its own challenges. All this add up to the need of having effective BI system in place and providing results out of it. Again there has been long debate on the quality of data that is available with manufacturing industry as for most of them they have to depend on external parties like retailers, distributors, contractors, suppliers , its own customers, others. If a proper feed is given to Supply Chain and Order management that will definitely ensure deep customer insight and inventory data for better and effective decision making.

## Understanding change

One of the challenges that manufacturing industry face is due to changes in demand. If managers have a proper understanding of costs and demand, they can make better decisions. Some of the manufacturer's also have a customer specific costing. Improved Visibility in Procure to Pay is helpful to optimise the supply side performance.

Manufacturing companies' product portfolios are larger to manage, has large number of suppliers to negotiate on cost and quality, maintain huge inventories which need to be tracked and moved to meet customer demands. Along with this there is always a need to analyse / identify customer need, maintain and improve customer delight, add customers so as to remain in business and be profitable. BI definitely helps in making right decisions to overcome these pressures and helps to manage and sustain in business in this complex environments.

## The way ahead

BI is very effective for all types of manufacturing be it process, discrete, or automotive. It can close the “fact gap” by improving the availability and delivery of actionable data with minimal IT involvement.

BI for manufacturing industry leverages all the sources of data available throughout the manufacturing process to deliver a holistic view for smart decisions, based on data that accurately reflects the true state of the entire manufacturing process. 