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Management Consultants to the Precast Industry

RESULTS IMPROVEMENT BULLETIN

PRECAST BUSINESS RESULTS IMPROVEMENT BULLETIN

Precast Business Results Improvement Bulletins are published by MJS Management Services. Additional bulletins that summarize current management challenges and solutions for the precast industry can be found at www.mjsmanagement.net.

MJS Management Services is a consulting firm that works exclusively with clients in the precast industry to improve business performance and results. For assistance with this or other management challenges please call 206-388-5209 or contact us by email. Visit our web site for a full description of the services we provide.

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KEY PERFORMANCE INDICATORS FOR PRECAST

Key performance indicators (KPI's) are a popular management tool used to link measurements to goals and strategies. This Results Improvement Bulletin summarizes principles for effective use of KPI's, presents a solution to a common problem with KPI's for precast and provides examples of effective KPI's for the engineering function.

Key performance indicators work best as part of a unified total management system where goals are clear, measures are effective and a well functioning management system is in place to link these elements.

MJS Management Services can help you to more effectively use KPI's to improve performance by:

- **Defining effective company wide KPI's,**
- **Defining effective departmental KPI's,**
- **Providing mechanisms to connect individual, departmental and company goals,**
- **Developing information systems that economically provide the information and statistics needed to measure performance,**
- **Developing an improved total management system that links goals, management activities and measurements.**

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Approaches To Creating Key Performance Indicators

The best selling management book, Good to Great – Why Some Companies Make the Leap and Others Don't, provides many examples of the benefits of KPI'S. A trait associated with great companies is their ability to creatively define a single, clear measure of the economic driver for their industry. The book lists the performance measure used by each of the 11 "great" companies. The single measure becomes a focus for performance measurement and is often different from those used by others in their industry.

The Balanced Scorecard (BSC) is another very popular method for developing KPI's. The BSC approach highlights that most traditional KPI's are financially oriented and focus on past performance. BSC retains financial measures but introduces broader measures that link customer, internal processes, employee and system performance to long term financial success. The BSC uses both lag and lead indicators. Lag indicators report on outcomes (such as profit or ROI) while lead indicators report on drivers of performance (such as an investment in processes or training that reduces cycle time resulting in improved customer satisfaction leading to greater revenue and profit).

Common Problems Precasters Encounter With KPI's

The theory of KPI's is that what gets measured gets done. Some roadblocks to this theory that are commonly experienced by precasters are:

- Misleading measures lead to poor decisions. A strict focus on actual labor versus estimate results in a quality or safety compromise that is much more costly in the long run.
- Due to ineffective KPI's, rather than what gets measured gets done, what gets measured gets argued about. Negative labor variances for today's production are because today's pieces were more complex than the average so performance was good even though extra hours were used.
- Due to deficient information systems, the cost of collecting valid information is greater than the value provided, so performance is not measured. For example, actual use of materials by production is compared to the estimate as opposed to the engineered bill of materials.

- Measures aren't relevant to the objective. Engineering uses a design that results in more expensive materials but less labor. The negative material variance is noted but not linked to the positive labor variance.
- Too many measures and too much information.
- Heavy reliance on lag indicators and less emphasis on the lead indicators that drive improvement and progress.

A Solution For The High Cost Of Collecting Information

Balanced Scorecard type systems can be effective for precasters because they create broader, more meaningful measures. However, valid information for a measure often isn't available or is too expensive to create. Rather than drop the indicator, here is another solution. Keep the indicator on the management review agenda but instead of a hard measurement use a management consensus or rating of progress.

For example, common lead indicators are investments in employee training or process improvement. Measuring hours or dollars of training or number of process improvement projects may not be very meaningful. The real issue is whether these investments are creating changes that result in improved customer satisfaction and greater revenue or profit. Developing an accurate measure of this can be very difficult. But rather than fall into the trap of measuring the wrong things, the management team can subjectively assess performance by regularly asking such questions as: "is the initiative (training, process improvement) creating value for the customer and if so how much? Describe examples. What should we be doing differently to create even more value? If the initiative isn't working should we stop and move onto something more productive?"

The same principle can apply to other measures such as quality and safety. The statistics tell one part of the story but can miss the basics such as: "is the safety and quality attitude of the workers and supervisors improving? worse, no change, small improvement, large improvement." Prevailing attitude is difficult to objectively measure but is a major driver of performance and can be subjectively evaluated by management as part of the performance review agenda.

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This approach simplifies the "what gets measured, gets done" thought to "what the management team reviews and focuses on, gets done". Good quality ongoing review and discussion of the right topics, using uncomplicated subjective performance measurements, can be an effective KPI tool.

KPI Example - The Engineering Department

Many precasters find that creating KPI's for engineering functions (engineering, drafting and in some cases project management) is difficult. As a starting point, we suggest the engineering functions be considered as an internal consulting group or business unit with a mandate to operate following the same principles as a successful external engineering consulting business. So, the KPI's will be oriented around:

- Financial and estimate performance – work is performed within the estimated hours, meet targets for utilization of staff (time charged to jobs as opposed to administration etc.), manage external consultants to their budgets, meet overhead budget targets. Personnel not assigned to projects are assigned to productive internal projects with an accurate tracking of time spent and results produced.
- Schedule performance – the ability to produce work according to schedule can be measured.
- Customer service and value – the engineering team's customers include sales, production, field/erection and external customers. A service rating can be provided by each these groups (e.g. a simple score out of 10 provided at a management meeting provides useful feed back). Examples of value engineering and designs that optimize operations and sales opportunities can be used as a performance measure. Responsiveness, attitude and other service measures should also be assessed.
- Quality – engineering and shop drawing issues/defects can be tracked. Customers (see above) can provide quality assessments.
- Productivity and throughput – measures of productivity are available (hours per shop drawing, design hours for similar structures). The engineering group's mandate should include investing in technology, standards, training and hiring quality staff to enhance productivity over time.

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- Change orders – performance measures for project managers can include success at entrepreneurially identifying revenue/margin opportunities from change orders (note: caution is needed to balance this measure with overall customer satisfaction).

Improved information systems are often required to economically collect and report the time used by the engineering team. However, this capability leads to improved performance measures and accountability. Additionally, this information provides a base for more accurate estimates of the engineering costs of projects, better planning and resource allocation.

Finally, many precasters plan to invest significantly in improved in 3D parametric modelling systems (Tekla and StructureWorks). The performance measures listed above provide management with tools to monitor the benefits of this investment (improved turnaround time, quality and lower costs).

For suggestions on specific KPI's for engineering, other departments and the entire company feel free to contact us.