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Die Casting Profitability

— Realities vs. Rhetoric

NADCA has published a number of my articles dealing with real-time realities — the realities of employee relations, the realities of good internal communications and the realities of positive motivation systems — all keys to high morale, productivity and a strong bottom-line.

These articles generated many queries from die casters wanting help improving worker productivity and boosting profits to the four to five percent range.

One key question arose in these assignments: why are some die casters more profitable than others if they all buy the same raw materials, have the same types of equipment and serve the same industries? What realities explain the bottom-line variations? I found two answers why productivity and profitability levels vary so much. One: how senior management behaved; and two: how lower level managers and first line supervisors supervised.

EXECUTIVE BEHAVIOR

Eschewing the usual jargon that festers in the fenns of the academe, I found executives in low profitability organizations exhibited four traits. These traits led to four problems that seemed to account for their lackluster financial results.

Talking Rather Than Doing

The first, almost universal executive trait was the tendency to talk rather than act, especially in those die casters bogged in the bottom of the financial pack.

Invariably, one trait of executives at struggling die casting companies was the reluctance to make firm decisions, even after all the facts were in. All executives face decisions daily. Most are minor, but occasionally major ones must be made, usually done after consultation with others. Should we replace a reverberatory furnace with a stack furnace to save energy costs? How can we increase shot yield from the current 60 percent to more than 80 percent? Caught between their entrepreneurial enthusiasm for innovation and their human desire for stability, these executives solved their dilemmas by talking rather than acting. Talking about a problem is more comfortable than the actual reality of doing something about it.

Why? Talk seems less threatening. It requires no behavior changes, no adjustment of standard procedure and no risk. Because change is perilous and may lead to unforeseen consequences, *talking* rather than *doing* seemed to be a pattern among executives in the less successful companies.

Failing to see the "Big Picture"

The second trait exhibited by executives in less profitable die casting companies was confusing effectiveness and busyness.

Many supervisors have been promoted to managerial rank because of their successful attention to detail. And some managers have risen to executive status due to similar diligence. Unfortunately, once promoted, many cling to the detailed reality with which they are familiar because they confuse effectiveness with busyness.

Comfortable with the details with which they are familiar, these executives micro-manage rather than delegate. As a result, they spend long hours floundering in a flood of minutia, never asking themselves how their day-to-day activities contribute to the overall goals they need to reach.

Consider a newly promoted general manager of a Midwest die caster serving the automotive industry. The company was highly rated by Detroit due to delivery reliability.

When he was production manager and the company was smaller, it made sense for him to spend most of his time "on the floor" because he was bedeviled by defects — non-fills, knit lines and porosity.

But the company grew. The newbie G.M. now needed to oversee the activities of others, rather than worry about specifics. The need for proper die and plunger lubricants paled before the realities of coordinating the different functions required for overall efficiency. This meant overseeing sales to make sure delivery promises were coordinated with production so orders would ship on time; checking accounting to see that raw materials were "hedged" to control costs; and monitoring front supervision to verify that new hires, often Hispanic, really received the training they needed to learn their jobs without hurting themselves — or others.

The G.M. still spent six long days a week in the plant, worrying about hydrogen absorption and dross formation, while subordinate "managers" ran around "expediting." Meanwhile, delivery reliability dropped from 90+ percent to about 75 percent, and shop floor efficiency dropped under 60 percent — with no bottom in sight!

Executives like these have not learned to differentiate between the "Big Picture" goals *they* need to achieve in order to accomplish company goals with the activities they should *delegate* to subordinates.

This trait is easily identified. Once acknowledged, it can be corrected by management development efforts geared to overcome it. Most managers can learn to list activities, prioritize goals and rate the contribution of the former to the latter. This allows them to use their time as effectively as possible, focusing on the key activities needed to reach overall company goals, and delegating the details to subordinates.

Battlefield Intelligence

The third trait exhibited by executives in less successful die casters was the inability to listen. An active "listening" program of upwards communications from employees to managers, and from managers to executives, produces informed decisions. Bottom-line profits are hurt when executives are out of touch with the realities of the daily battle-lines.

> **"The most effective World War II military leaders (Patton, Rommel, etc.) led their forces from the front. Effective executives do the same, obtaining intelligence from the battle-lines before making their command decisions."**

Successful executives develop communication systems to listen to subordinates to uncover what is actually occurring on the "battle-lines" in the plant and office. This helps executives coordinate the efforts of the different departments for which they were responsible in order to maintain smoothly running operations. Why is secondary machining falling behind? Who is keeping an eye on melt loss, keeping it below three percent? Is maintenance following the preventive maintenance schedule? Are supervisors using the productivity data generated daily by Job Boss or Shop Wiz so the causes of poor output can be identified and corrected? Why does purchasing have so much trouble obtaining enough zinc at the right price? Who is responsible for new employee training? What is everybody *really* doing?

One manager of a Wisconsin aluminum die casting company was troubled by down time. Customer deliveries fell ever further behind, despite the rigid production schedule he insisted on. A management audit of plant supervision and production planners revealed that despite the plans, training for quick die changes had never been fully implemented. Only by questioning the frustrated supervisors was the fact highlighted that average die exchange took at least 40 minutes. As a result, excess downtime was slowing production… and subsequent customer deliveries.

Had the executive questioned supervisors earlier, he would have learned the realities which caused so many late customer shipments. This is just one example of executives checking to see what they *assume* is occurring is *really* happening.

Many executives in struggling die casting companies dismissed subordinate ideas for operational improvement as "gripes." When frustrated supervisors point out shortcomings in equipment, materials, policies, etc., they are being constructive. Their ideas often help improve productivity and quality, saving costs.

Failure to Communicate

The fourth common executive malfunction I saw in struggling die casting companies was a failure to communicate effectively to subordinates the need for high goals. These executives curtly ordered things done, rather than reiterating endlessly to subordinates why the goals were needed, and asking for cooperation. The magic words, "I need your help," were missing.

One West Coast die caster specialized in castings used in home appliances and business equipment. An ambitious finance manager wrangled a transfer to plant manager when the incumbent retired. He figured some "P&L responsibility" would help him reach the executive suite.

New to his job, the accountant tried to impress the president by setting a goal: boost annual sales per employee from $170,000 to $200,000 in the face of the growing Far East competition. He tackled the problem by making all employees "work bell-to-bell" to increase total throughput.

Not bothering to explain why the higher productivity of bell-to-bell work was needed to the union leadership or his Hispanic workers, the new plant manager simply posted a notice that employees must return promptly from their 30 minute lunches. Many Latino workers complained, saying that they needed more time for their traditional, big meal of the day.

Soon, five senior operators were disciplined for long lunches. The union filed a grievance and productivity dropped. This led to a fiery query from "upstairs."

Had the new plant manager realized that the union leaders were similarly afraid of losing jobs to foreign competition, a meeting with them to discuss the lost-time situation, to outline the need for higher output and to make a minor investment in more lunch room microwaves would have ensured cooperation rather than conflict.

What's The Solution?

While no single die casting executive exhibited all four traits, those in low profitability organizations were caught in four traps: first, a fear of change resulting in inertia rather than innovation, leading to a tendency to talk about problems rather than act. Second, many executives demonstrated an inability to differentiate between activity and effectiveness, creating long hours of "detail" work having little to do with the overall goals *they* needed to achieve. Third, these executives managed without an effective communications *system*, blinding them to the organizational dysfunctions that stymied achievement of company goals. Fourth and finally, the ineffective executives ignored the need for constant, creditable reiteration of the company goals and why they were in everybody's best interests. This caused confusion; subordinates did not fully comprehend why the goals were needed nor why their cooperation was required. Because of these four traits, managerial inertia triumphed, frustration reigned, and the die casters' productivity and profitability suffered. "Business as usual" prevailed, reaffirming Peter Drucker's (Wall Street Journal/book author) famous maxim:

> **"Management inertia is responsible for more loss of market share, more loss of competitive position, and more loss of business growth than any other factor."**

Investing in a no-nonsense effort to remedy these managerial shortcomings is a serious decision. The traits that lead to sub-optimal executive performance are readily apparent to a knowledgeable "change agent" invited into an organization. He can identify those who exhibit these traits in management development courses developed to solve them. While the investment in a serious effort to improve managerial effectiveness is greater than buying a "canned" internet program, the pay-off is also greater. Once started, these behavioral changes cascade down through the organization, improving lower-level supervisory effectiveness as well.

SUPERVISORY BEHAVIOR

A second key difference separating the most profitable die casters from the "also-rans" was their approach to supervisory training and the resulting focus of individual supervisors.

Differences in Supervisory Training

The supervisory training in the die casters investigated involved a variety of trainers and training techniques. Those reporting top operating results — higher on-time shipments, less waste and scrap, lower turnover and most importantly, a high operating profit (more than four percent) — attributed their success in part to a well disciplined cadre of supervisors running highly productive areas. The others with so-so financial results said their supervisory training — and supervisors — were ineffective. Why?

The key difference: those with good financial results trained supervisors and management *how to organize* their employees' work efficiently within an environment of continuous improvement. The ones with poor results trained supervisors *how to manage* their employees' behavior.

First Line Supervisory Effect on Productivity

Properly trained first line supervisors can really have a powerful effect on productivity and profitability.

High productivity means managing methods and materials as well as manpower. Somebody needs to manage the employees' work. Somebody needs to devise new methods so die changes are quickly done, work-in-process can be cut and working capital saved. For example, somebody needs to use modern production control systems so workers in finishing do not stand idle, waiting for rough castings to machine. In short: somebody needs to manage the overall process of turning raw materials into value-added items sought by cost-conscious customers.

DIE CASTERS WITH GOOD FINANCIAL RESULTS

In those die casters with top results, supervisory training was part of a constant effort to identify and resolve the problems preventing foremen from achieving ever more ambitious company goals and rewarding them when they did so.

Supervisory training in profitable die casters had three goals — teaching front line managers better ways to organize their work, showing them how to use an effective program of internal communications and teaching them how to use a compensation system to reward employees when efficiency improved.

The never-ending training occurred in an environment of problem solving and continuous improvement. Last year's results, no matter how good, were not enough now. There was always room for the improvement needed to attract and keep the most demanding of customers, to the obvious benefit of the company's bottom-line.

WHAT WENT WRONG AT THE "ALSO-RANS"?

Because success has a thousand fathers and failure is an orphan, checking the die casters with "so-so" results is more instructive than applauding success.

The supervisory training in the "also-rans" taught front line managers *how to manage their employees' behavior*. The content was similar — dealing with absenteeism, discipline, etc. (Staying non-union was the whispered priority.) Nothing was said about *how to manage employees' work*. Apparently, the efficient organization of work somehow just happened — perhaps due to pixie powder or some other magical mixture.

There are four training specifics that explain both the questionable profitability and poor supervisory performance at these "also-rans."

First, their training concentrated on how to *deal* with hourly workers — the "do-ers" of the work. The *organization* of their work was ignored. Instruction in planning, problem solving, simple Constraint Theory, root cause identification, production data analysis (quality, productivity, etc) were lacking.

Second, training was "canned," often an off-the-shelf course from some local institution or association. Such training is often inexpensive but ineffective. Since these courses of necessity are general, die casting supervisors saw little connection between what was taught and their own situations. Effectiveness requires case materials from the supervisors' own facility. The instructor must dig for local, realistic case materials.

Third, they did not include the proper personnel. Plant engineers, production schedulers, quality gurus and others whose own jobs involved helping organize the work of front-line supervisors and employees were often excluded.

Finally, internal communications were poor. Little effort was made to monitor or remedy the problems of front-line supervisors, hence the irrelevant training. Inertia ruled.

While inertia is easier to spot from the ivory tower than from the paper strewn desk of a busy executive, it manifests itself as executive hope that problems will somehow disappear… that the status quo will not sink to the status woe.

What were the root causes of these misguided hopes?

The root causes were management's lack of knowledge about the operational problems faced by mid-management, supervision and first line employees and the reasons for them. Because top management had not listened, it could not provide the proper information and systems to supervisors, nor the training and motivation to use them in order to achieve high productivity. As a result, many mid-managers and supervisors were demoralized, believing nothing would ever change.

FOUR INITIATIVES LEAD TO TOP SUPERVISORY PERFORMANCE

The cause of ineffective supervision in the die casters with "so-so" financial returns lay not with the supervisors but with higher management. Harassed executives overlooked the need for interlocking systems to highlight the shop-floor realities faced by supervision, to encourage problem solving and to reward supervisory cooperation in meeting company goals. Such deficiencies were overcome when four initiatives are undertaken.

The first initiative in dealing with reality is to identify it. This can be done by a supervisory audit to uncover supervisory and mid-management problems. The most effective audits are conducted by knowledgeable outsiders to whom supervisors and mid-managers will speak freely, and who have enough experience to interpret the problems correctly.

The second is to address the problems preventing supervisors from being efficient. This involves training them to organize their work effectively. It typically covers root cause analysis, planning, problem solving, Constraint Theory, delegation, effective use of production data, etc. The trainer must distill these subjects into easily understood portions that supervisors can absorb and use daily.

The third initiative is simple: hold supervisors and mid-managers responsible for results. This means setting goals, monitoring performance by tracking productivity and quality and rewarding success. Sadly but necessarily, failure too must have consequences.

The final initiative is to reinforce the training by providing a compensation/motivation system like gainsharing to reward supervisors and managers for the results they collectively produce. Gainsharing provides financial rewards that are earned and re-earned as a die caster's performance improves. Well-conceived and properly implemented gainsharing plans result in productivity and quality improvements averaging 17 to 22 percent annually.

FINALLY, WHAT'S THE BOTTOM-LINE?

America did not become the world economic power by serving up fast food fast.

It is the power because Eli Whitney invented the idea of interchangeable parts in 1798 to fulfill a government musket order for American troops fighting Redcoats on the Western frontiers.

It is the power because Henry Ford devised the moving assembly line in 1915 in the automotive industry.

It is the power that was the Arsenal of Democracy in World War II, giving General Patton the armored legions to blaze across Europe.

It is the power whose economy defeated Communism in 1989.

It invented the systems by which anybody from the Andes to Afghanistan can buy inexpensive cell phones, watch the latest movie on a DVD or grab a fast Big Mac or a quick Chicken Extra Crispy, knowing the carbs and calories will always be the same.

These systems were invented by brave entrepreneurs who learned how to organize the work and taught their organizations to do so also. Foreign imports, now mainly from Pacific Rim countries, are nothing new. American die casters overcame imports in years past and can do so again, if their response to foreign competition is more than simply urging employees to "push the wheelbarrow faster."

Many die casters say their employees are their biggest asset and boast they urge them to "work smarter rather than harder." Yet, few in reality provide the inter-related tools, the monetary incentives, the properly trained supervision or the systems of work for them to do so. By training mid-management and first line supervisors how to organize the work in their areas of responsibility, by giving them the tools to use the training to actually "work smarter rather than harder" and finally by providing the proper rewards when they succeed, "working smarter" becomes a daily reality to pass down to the hourly workforce.

Will American ingenuity again ensure the die casting industry's survival...and perhaps even prosperity?

Yes!…if it faces up to reality!

Isn't it about time for you to face up to reality?

About the Author

Dr. Woodfruff Imberman has lectured at over a dozen universities and published more than 400 articles on various aspects of human resource administration and compensation. He has directed programs at companies including Ispat Inland, Federal Mogul, Timken, Rockwell International, Getty Oil, VF Corp./Healthtex, Inc. and many smaller companies in the U.S. and Canada. Readers interested in additional information can contact the author for his earlier NADCA articles at IMBandDEF@aol.com.