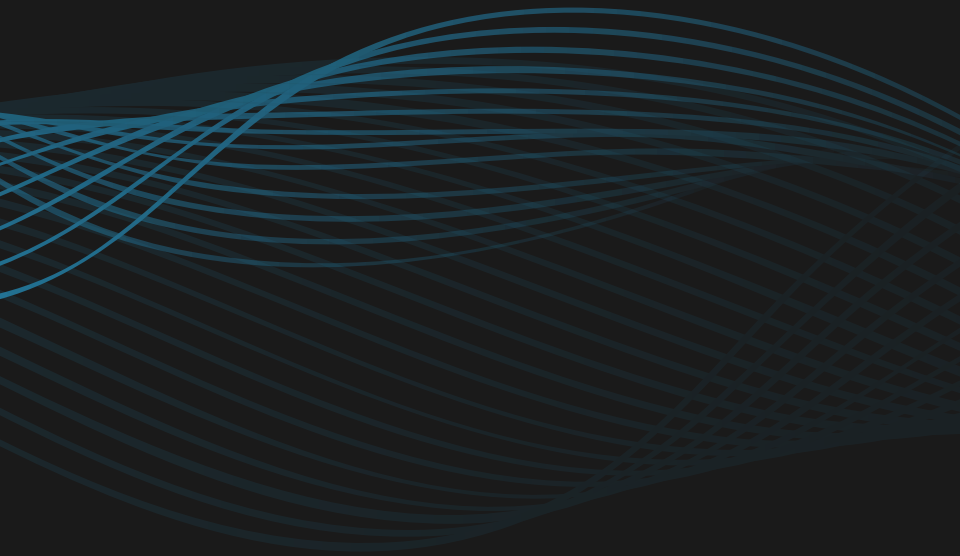

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ISBN: 978-1-7778002-1-5 (paperback)
ISBN: 978-1-7778002-5-3 (EPUB) / 978-1-7778002-9-1 (ebook-PDF)

Edited by Julie Packard
Artwork - See Image Credits, page 110.
Cover illustration: Yevheniia Hordieieva (istockphoto.com)

For information: www.carpedia.com

First edition (Revised 2021)
Published and printed in Canada

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OPPORTUNITIES DEFINED

In our work "opportunity" is something of a euphemism for "problem." We actually debated calling this series *52 Common Problems*, but "problems" has a negative connotation, whereas "opportunities" is inherently more optimistic. Before engaging in a partnership with any of our clients, we perform what we refer to as an "opportunity analysis." While the intent of the analysis is to look for underlying problems in the organization's processes, systems and behaviors, what we really want to uncover are problems that might be opportunities for improvement. Problems that we can't do anything about aren't very helpful. So finding opportunities, not problems, is the real key to performance improvement.

This series, *Carpedia's 52 Opportunities*, is intended to provide some insight into many common problem areas that can constrain an organization's performance. The insights are derived from 20-plus years of analyzing and working with leading organizations across a wide spectrum of industries, markets and locations.

As competition intensifies everywhere, managers are often asked to improve the productivity or effectiveness of their area of responsibility. Not knowing where to start can be a significant hurdle. This series is designed to give managers a few starting points when looking for opportunity. It's actually something of a laundry list of things that commonly go wrong, for one reason or another, in many organizations. We hope that you can use some of these ideas to help identify problems and drive performance improvement.

OPPORTUNITY #1

THE HUNT FOR OPPORTUNITIES

As mentioned, "opportunity" is one of those euphemisms we use instead of "problems." It's arguably a better word, because most operating problems are, in fact, opportunities for an organization to improve. Before we take on a project for a client, we do an "opportunity analysis," which is like a financial and operational due diligence. A key purpose of the analysis is to identify opportunities that exist in the current process and, more generally, the magnitude of the total opportunity. But given the complex nature of many organizations, where do we look for opportunity?

To help structure our thinking, we break down organizations (or specific functions or processes) into four separate, but interrelated, areas: product, process, management systems and organizational behavior. Within each of these four areas, there are a number of things we look for, and a range of studies we can apply. One of the things we've learned over the years is that although organizations are complex and can differ significantly

from one another (even within the same industry), there are a number of operating problems (i.e., opportunities) that are quite common.

In this era of hypercompetition, managers are constantly being asked to improve the productivity or effectiveness of their area of responsibility. This series is designed to provide insight into some of the more common opportunities we see across many diverse types of organizations and industry sectors. While not everything will be applicable to all organizations, we are sure you will find many ideas that can help you in the never-ending hunt for opportunity.

OPPORTUNITY #2

GREEN- AND RED-TIME OPPORTUNITY

When we look for opportunity, we categorize time into green and red components. Green time is the current productive part of a process, while red is the non-productive waste. Green time typically takes up 50% to 60% of the process, which means red time usually takes between 40% to 50%. It surprises most managers to learn how much time falls into this red component. This is in part because people often equate productive time with effort, but the two aren't necessarily related. Non-productive time can take as much or more effort than productive time. It's also a little misleading because it somehow implies that a process could or should be 100% green. But some red (or non-productive) time is actually required to allow some flexibility of operations. Other factors can also have an impact, such as machine versus people-driven processes or union versus non-union environments. Even so-called world-class processes generally have 10% to15% red time due to real-life variability.

Improving either the green or red components of a process requires different types of problem-solving. Improvements to green time require changing the process as it is designed. This was called "re-engineering" until that term fell out of favor and is now more popularly referred to as "innovation." Improvements to red time require eliminating or reducing waste that is inherent in the process. This is where Lean and its numerous variants are commonly applied.

OPPORTUNITY #3

WHY HAPPY CUSTOMERS AREN'T ENOUGH

Over the years we've done a number of studies to try to help our clients find out what their customers think of them. These types of studies are often packaged under the term "voice of the customer." The idea is to survey customers to identify their key buying attributes and their priorities, and see how the company stacks up against competitors and alternatives. Managers are also surveyed; they often score themselves highly. And so do customers. Companies often fare quite well with existing customers, and even with non-customers, on many important attributes. The problem is that competitors fare well too.

The problem that many companies face is that they exist in competitive industries where all the main players are pretty good. The big danger is that even when customers say that price isn't the most important attribute, which they often do, it sometimes becomes the most important one. If all the competitors are similar in terms of other attributes, price be-

comes a key decision attribute – a point that is often leveraged by expert procurement departments. When price becomes the key focus, margins quickly erode.

It would be unfair to claim that it's a consultant's parlor trick, but the real point of the study is often to unsettle what is sometimes over-confidence in existing perceptions. The real opportunity to improve customer preference is to provide a key attribute that is significantly better, and to provide it differently than your competitors do. But this starts with recognizing that being really good, in your customers' eyes, simply isn't enough anymore.

OPPORTUNITY #4

WHAT ARE WE ACTUALLY TRYING TO IMPROVE?

"Boiling the ocean" is one of those phrases that can be quite accurate but still slightly irritating to use or hear. It refers to analyzing something to death or tackling a problem with an impossible scope. And it's an easy trap to fall into when you are looking for opportunities. The usual reason for doing what inevitably turns out to be a waste of time is the lack of a hypothesis. If you go searching for opportunity without some idea of what you are trying to determine, you may well have someone throw this phrase your way.

So the starting point for any opportunity hunt is a hypothesis. We use something we call "universal customer value" to begin to identify where to focus. Universal customer value is simply the recognition that four things are important to virtually every customer: speed, accuracy, cost and service. Any of these elements can be improved, but it's helpful to choose one on which to focus. To determine which one, you must assess which

attributes are most important to your customers (or users), and then identify the gap between current and desired performance levels. Analytically, speed is cycle time; accuracy is error rate; cost is productivity; and service is schedule attainment.

Even if you don't know what the exact numbers should be, you can identify the gap between what it is currently and what it could possibly be. That difference is where all the opportunities lie.

OPPORTUNITY #5

WHEN BEING MORE PRODUCTIVE DOESN'T MAKE YOU MORE PRODUCTIVE

There are a number of functions in an organization where it's tough to move the productivity meter. For example, your company might actually produce more, while your base costs don't change. So true productivity, measured from a financial perspective, doesn't improve. In fact, material or supply costs could actually increase, so increased productivity could actually end up costing you more.

One example is where there is a steady, constant and sometimes ancient backlog of work. This is typical of maintenance, engineering, information technology (IT) groups and other "project-based" functions. Here you can quantify the jobs that need to be done, but because of the large backlog it's very hard to actually take cost out of the area. Instead, what happens is that you end up burning down the backlog to an acceptable level. Therefore, for a period of time you can be more productive, but financially the costs are effectively the same as before.

Analytically, it's helpful to do a few things with regard to work backlogs. (1) Quantify the work that needs to be done. (2) Sort the backlog in terms of priority and need. (3) Purge the backlog, eliminating things that may have been a good idea at one time but are no longer needed (the lowest-priority items). You also need to try to identify what types of work come into these areas that naturally add to the backlog. For example, you may have repeat or planned work that you could schedule; emergency work that is more random but might have some predictability over time; and finally "pet projects" that may have more utility to a particular manager than the business as a whole.

For financial productivity gains, the opportunity lies in trying to determine the acceptable backlog level in the area and then consciously managing the inputs and outputs to operate at this level. Like a lot of business concepts, it's easier to write about than it is to execute. Going this route usually highlights that both forecasting and work estimation are areas that qualify as opportunities ripe for improvement.

OPPORTUNITY #6

THE OPPORTUNITY THAT HIDES IN PLAIN SIGHT

More than half a century ago, British naval historian and author Cyril Northcote Parkinson wrote a humorous essay for *The Economist*, drawing in part from his extensive experience in the British Civil Service. He observed that work tends to fill the time available for its completion. Most people have experienced this phenomenon. We observe it in organizations all the time when we do work studies. We call this opportunity "pacing," as in "pacing the work to fill the time." It's particularly present in repetitive-task environments where people can consciously or unconsciously work to different cadences (e.g., setting tables, producing similar reports, processing basic claims). It is also, however, present in "knowledge-based" environments where people have a high degree of control over the tasks and activities required. There may be templates for a report, for example, but there is a high degree of variability and choice involved in what ends up in the report.

The difficult part about pacing is that it hides in plain sight. You can be watching someone perform tasks over and over and miss the gradual seepage of time. The only way to identify this opportunity is to understand the work-to-time relationships and study the variances in output. Pacing is quite common at the end of the day or shift, when fatigue plays a part. Another key driver of pacing is backlog, something we discussed in Opportunity #5: "When Being More Productive Doesn't Make You More Productive." People start pacing when they perceive that their work backlog is drying up. This can be conscious self-preservation or unconscious workload balancing. This opportunity has a great deal to do with how a manager assigns work and corresponding expectations to staff. Assigning work with a time-based expectation can significantly impact the pace at which someone works, but it's not as common a practice as one might expect – and one we will discuss in the next Opportunity.

OPPORTUNITY #7

THE SURPRISING IMPORTANCE OF SMART WORK ASSIGNMENTS

We spend a lot of time during our diagnostic phase doing "day in the life" studies. The purpose of these studies is not to watch an individual; it's to watch the process flow and transfer points at what we call "the point of execution." This is where people actually perform tasks needed to get information or material through the process. We study this at various positions throughout an organization because it provides so much detail, and inevitably reveals problems that are the cause of valuable lost time. The tricky part is that we are often seeing the end result and not the actual cause, so we need to figure out what happened to create the problems in the first place. A somewhat surprising cause of lost time at the point of execution is how managers actually assign work. It's not something that you might naturally think of as a root cause of problems. People tend to think root causes are more likely to be such things as missing information from an upstream function, incorrect scheduling or sequencing of mate-

rial. But the simple notion of work assignment plays a remarkably large role in how productive people are.

The best acronym we've come across for work assignments is SMART (Specific, Measurable, Attainable, Realistic,Time-bound). It's often used for goal-based planning, but it is equally applicable to how managers assign work. When we observe lost time in a process, one of the causes can often be traced back to which part of the SMART acronym was missing when the work was assigned.

In the next four Opportunities, we will provide some real-life examples of how easy it is for managers to fall into this trap. Here are the four common problems with work assignments that we will examine:

- Managers don't assign work.
- Managers assign work without time parameters.
- Managers assign work unevenly.
- Managers don't provide a backup assignment.

OPPORTUNITY #8

WHEN MANAGERS DON'T ASSIGN WORK

A lot of productivity is lost simply due to how work is assigned – or not assigned at all. What we often see is the manager who plays the role of a work collator, someone who creates a backlog of tasks from which an employee can draw. Work is "loaded" as opposed to "assigned." This is particularly true in knowledge-based work environments. Work backlogs can be in the form of a sequence of work or some kind of project list. In these cases, it's actually the employee who self-assigns the work, while the manager follows up on progress periodically. Sometimes this can lead to the wrong work being done at the wrong time, because the employee is creating their own work sequence. "Loading" work isn't nearly as effective as "assigning" work, at least in terms of getting things done productively. The ability of a manager to assign work properly turns out to be a very important lever in managing productivity and schedule attainment.

In the previous Opportunity, we discussed the concept of SMART work

assignment (Specific, Measurable, Attainable, Realistic, Time-bound). As this concept implies, proper work assignment is actually very hard to do well. It involves knowing which specific tasks are required to accomplish an output; some means of measurement; a good understanding of the task itself to ensure that the assignment is attainable and realistic; and on top of all that it requires knowledge of the actual time it should take to actually accomplish. It's no wonder work is often "self-assigned."

There are a number of common reasons for a manager to not assign work. Sometimes the employee is quite experienced and may even understand the task as well as, if not better than, the manager, which may make the manager uncomfortable about assigning a specific volume or time to an activity. Other times the manager is very knowledgeable, but assumes that the employee is quite capable of understanding what needs to be done while working at an appropriate pace. However, without clear assignments, an employee can run into obstacles his or her manager never knows about. Most employees are resilient and can figure out ways to get work done, but these "workarounds" can become the basis for embedded operating problems. Over time, a surprising amount of "lost time" gets buried in the normal operating practices of a department.

OPPORTUNITY #9

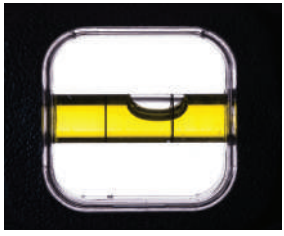
MANAGERS ASSIGN WORK WITHOUT TIME PARAMETERS

We were working for a large software-development company. One of the big operating concerns was the timely co-ordination of coding and testing. Being off-schedule can cause a serious breakdown in the critical path. In order to be able to follow up with software engineers to ensure they were staying on schedule (and getting the appropriate support they needed), managers needed to break down their projects into smaller, more manageable packages of work (from monthly to weekly or, in some cases, daily increments). The software engineers had a tendency to view this form of SMART work assignment as a proxy for "micromanagement" and openly resisted the change. The problem with this stance is that it negated, or at best deferred, any support that management could provide. (An arguably bigger problem was that line management wasn't very keen on the change either, but that's a different issue and a broader discussion).

SMART work assignment is more common in production environments, but even there we see many cases where work is not assigned with any specific time parameters. Employees, many of whom have been doing their job for years, work off priority or "hot lists," which are posted. What's often missing is the actual schedule indicating when the job needs to be completed. There may be many reasons for this, but a couple of the more common ones are that basic planning standards aren't trusted, and schedules are too often changed at the last minute to accommodate rush orders.

Many people resist the notion of time standards (it seems to conjure up the image of industrial engineers running around with clipboards and stopwatches), but time standards are a vital link in any work or production schedule. Without being able to relate work to time, it is virtually impossible for a manager to meaningfully schedule and follow up on work. It also makes it very difficult to uncover anything but the most obvious types of lost time.

OPPORTUNITY #10



MANAGERS ASSIGN WORK UNEVENLY

When we do studies in various work environments, we often find large imbalances in output between individuals doing similar work. The fact that some people do more than others is perhaps a fairly obvious or predictable finding. Employees' skills and capabilities vary quite significantly, so it is reasonable to assume that output varies as well. What we find, however, is that the variability often has less to do with employees' abilities, and more to do with how the actual work is assigned.

When work is distributed unevenly, people tend to work at different paces. Some people are, for lack of a better term, "natural" workers who have an innate predisposition to work hard at whatever they do. They are the people that managers like to load up with work, because they are good at getting things done quickly and efficiently. However, over time relying too much on the more ambitious workers tends to cause some dissatisfaction at both ends of the worker spectrum. Slower workers may feel

demotivated, while more capable workers can become resentful. This dynamic almost always results in the better workers eventually slowing their pace. This gradual deterioration can be difficult to actually observe, but it shows up in a measurable decline in productivity over time.

Uneven work assignment is a management problem, not a worker problem. Management's job is to try to elevate the overall group productivity. While every organization wants to find and retain star performers, one of the better ways to do it is to coach and train less-skilled workers, so that work can be more evenly and fairly distributed.

OPPORTUNITY #11

MANAGERS DON'T PROVIDE A BACKUP ASSIGNMENT

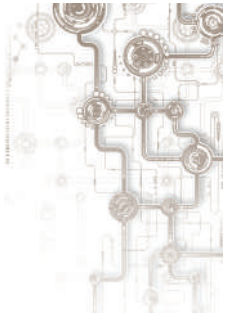
One of our consultants did a "day in the life" study of a mechanic in a large aerospace company. The findings of the study were reported back to the senior executives. One section of the observation grabbed everyone's attention. Three-quarters of the way through his shift, the mechanic finished his day's assignments so sat down and read a newspaper for what eventually turned out to be an hour, at which point his supervisor showed up and assigned an additional work order. This finding was heralded as a powerful example of how the company could uncover lost productive time: if they could only get management to follow up on workers throughout the day. But this was the wrong conclusion.

It was the wrong conclusion because it implied that this was a worker problem, when it was actually a management problem. As our consultant had spent the day with the worker, we were more cognizant of the full, unedited story. The supervisor had assigned each mechanic what he con-

sidered to be a full day's work. The facility was so large (and communications somewhat inconsistent), the supervisor had asked them to remain at the final job site of the day, so he could follow up. So in this particular case the mechanic had done everything he was assigned – he just did it faster than the supervisor estimated (about an hour faster, as it turned out). And he remained at the last site, as instructed, so whether he read a newspaper or not turned out to be a moot point. The real problems were the estimated times to perform the work orders and the lack of a backup assignment.

In many operations, backup assignments can be a useful means to even out daily workflow. By providing a ready backlog of work that can be accessed if the main task is delayed, for whatever reason, a manager can help optimize the productivity of an area.

OPPORTUNITY #12



A SOLUTION IN SEARCH OF A PROBLEM

A consultant once spent three hours watching a production line trying to find opportunity. It was a simple quality-inspection area, where the product flowed in a continuous stream past a number of trained inspectors. The consultant noticed that each inspector used a different "select, pick, inspect, replace" technique and determined there must be a "best practice." He discussed the finding with his project manager. The manager said simply, "You have a solution in search of a problem. You'll have more success if you start the other way around."

This is a problem we sometimes encounter. It's easy, but it's a mistake to assume that applying a single best practice technique will improve either quality or productivity before determining if either of those outcomes are correlated to the actual inspection process. In many industries and in many functions, we observe jobs that are done differently by different people. For example, hotel housekeepers have the same outcome (a

clean room) but often perform the room-cleaning task in a variety of different ways (different order, sequence, cleaning techniques, etc.). Over time we've learned that it's extremely difficult to change this behavior, and the gains are relatively small. This also allows the housekeepers a certain degree of autonomy in what is otherwise a fairly monotonous task.

The opportunity on the production line turned out to have nothing to do with the inspection process. There was no significant difference in either speed or quality of the inspection based on how the inspection was conducted. The overall line throughput (and the corresponding productivity of the inspection team) was improved by simply increasing the speed of the line.

OPPORTUNITY #13

THE REAL VALUE OF "5S"

"5S" is a Japanese workplace-organization methodology that is typically part of most "Lean" programs. There are a few ways to translate the original five Japanese words (*seiri, seiton, seiso, seiketsu* and *shitsuke*), but in effect they are: sort, systematize, shine, standardize and self-discipline. The concept is sometimes thought of as a housekeeping method to make sure that work areas are clean and well organized.

The underlying problem we often see with 5S is that it is very difficult to sustain. It's common for us to see 5S "artifacts." In production plants, we often come across an artifact called a "shadow board." These shadow boards are simple wall boards designed to identify where things, such as tools, are supposed to go. However, in practice they are often empty, or filled with the wrong things in the wrong places. 5S takes tremendous discipline and requires a very specific culture that supports and reinforces that discipline.

The real value of 5S is not its housekeeping aspect, although it is obviously good for productivity, safety, etc. The real value of 5S is that it engages employees at the front line to really think about how work flows through their work area. Employees are a tremendous source of opportunities when they are actually engaged in their work. When it's done properly, 5S requires an employee to logically consider how to optimize not only the layout of the area but also the actual flow of work. In many repetitive-work environments, either in manufacturing or service environments, 5S makes the work itself much more interesting, and gives ownership to the front line that is hard to replicate. It is significantly more engaging than quality or service slogans.

Despite its apparent simplicity, it's a very hard method to install in many organizations, in part due to habits that take a concerted effort to change. But if an organization has the right culture and approaches the methodology as a means to improve, rather than simply keep the work area tidy, it can be a very valuable source of opportunities.

OPPORTUNITY #14

THE GOOD AND THE BAD OF OVERTIME

Sometimes managers can't win. Consultants will be critical if they do something – and if they don't. Overtime is one example. Many organizations use overtime as a practical way to manage high-demand periods that would otherwise require hiring additional staff. But like many good ideas that work in theory, this doesn't always work in practice. Sometimes the use of overtime is out of sync with the need for overtime.

Whenever we see overtime over 5%, a red flag goes up, and we start to suspect that there may be too much cost built into the process. Many organizations use overtime to offset peak volume periods. The obvious danger is that the premium compensation that comes with overtime can quickly become an expectation or entitlement if not managed carefully. Once that level of compensation becomes an established practice, it is difficult for a manager to claw it back or eliminate it altogether.

When studying overtime, we look carefully at what work is scheduled

throughout the day and what work is done during the premium period. We then try to determine if overtime is really necessary. Some of the reasons for unnecessary overtime include:

- Work is paced, intentionally or not, during the day with a built-in expectation that overtime will be required.
- Work that could be done during regular hours is completed using overtime hours.
- Work is unevenly distributed, causing overtime in one position and underutilization in another.
- Work is done during the peak volume that could be offloaded to a non-peak period.
- Short-term support is not developed to help offset peak-demand periods.

The counterbalance to excessive overtime is the lack of any overtime. This is another red flag – and a source of opportunity. In many environments, work flows naturally in a cyclical fashion, and you might reasonably expect that occasional overtime would be helpful. However, if no overtime is ever required, this is sometimes an indicator that the organization is using more resources than necessary.

OPPORTUNITY #15

THE UNLIKABLE TENDENCIES OF A CONSULTANT

Consultants tend to be contrarians by nature. It's a common characteristic among people attracted to an industry that exists to change things. Contrarians have an innate desire to be skeptical, take opposing viewpoints, and do things differently. Although it may be slightly irritating in a social setting, it is very helpful when you are looking for opportunities in a business.

Many of the training programs and tools that consultants use are designed to help challenge why something is the way it is, with a desire to make it better in some way. One of the tools that we find useful, and will be particularly helpful if being a contrarian isn't your natural tendency, is a mnemonic known as SCAMPER, which was developed decades ago by Alex Osborn and Bob Eberle. The tool is simply a problem-solving guide to get you thinking about how you could improve any product or process.

Here is a simple example of some SCAMPER-based questions that are applicable to any process:

Substitute	Can the service be delivered with less expensive resources?
Combine	Can you combine positions or functions?
Adapt	Are there any ideas that can be adapted from other industries?
Modify	Can the process be modified to make it faster?
Put to another use	Can the space or equipment be used at other times for other purposes?
Eliminate	Can some of the process steps be eliminated?
Rearrange	Can the process be resequenced to make it more effective?

The key is to think of these questions when you are actually observing or studying the process. This can be harder than it sounds, especially if your brain isn't naturally wired that way. We see a lot of analyses that aren't actually very analytical. They could be better described as "capturing data" as opposed to actually analyzing something to see if it could be improved. Sometimes you need to force yourself to take a contrarian's viewpoint.

OPPORTUNITY #16

DON'T DRAW YOUR FINDINGS FROM YOUR CONCLUSIONS

In the previous Opportunity, we discussed the value of being a contrarian, so it seems only appropriate that we now explore the problem with it.

The upside of being a contrarian is that you are open to looking at things from a different perspective, which can lead to innovative method changes. The downside is that sometimes you fall into the trap of picking the opposite position and then problem-solving to ensure that your position is correct. It turns out that most of us are biologically wired to decide on an answer too quickly and then make the resulting evidence "fit" the answer. Most of us also go so far as to subconsciously ignore evidence that doesn't fit our answer.

The way we try to avoid this tendency is by "pre-presenting" our findings and conclusions to as many people as possible (or practical). Pre-presenting is the art of testing your ideas before you present them as a conclusion. It's a critical part of any change-management initiative and,

although time-consuming, it's almost always time well spent.

Internally, pre-presenting works well for us because, as previously mentioned, consultants are mostly contrarians. We look for errors in any new idea and try to poke holes in the underlying assumptions. But pre-presenting also works because people generally don't like change: if ideas challenge the status quo, they trigger a natural resistance and skepticism, similar to a contrarian's position. This sounds confrontational, but pre-presenting is actually vital for uncovering potential problems that we haven't thought of yet. Sometimes the objections raised are valid and we need to rethink our conclusion, which starts the pre-presenting cycle again. Pre-presenting also helps get people to buy into the change by involving them in the development of the idea.

So while being a contrarian can be helpful for identifying opportunities, to avoid its darker side you need to be sure that you draw your conclusions from your findings, and not the other way around.

OPPORTUNITY #17

TOO BRIGHT TO SEE OPPORTUNITY

Ironically, sometimes opportunities exist, and even flourish, in high-knowledge work environments because managers are too well educated. High-knowledge environments are those where employees generally require years of technical education to learn their trade, e.g., engineering, technology, medicine, law and software development. Because the managers in these areas are often very smart, they assume they should be experts at managing. They believe that if an opportunity existed, they would have found it already. They often lose the ability to see opportunity objectively.

High-knowledge managers can sometimes become defensive when faced with the notion that there might be anything more than incremental room for improvement in an area for which they are accountable and know very well. This reaction can be magnified when managers have been responsible for the area for a long time. What high-knowledge managers sometimes assume is that seeing opportunity is an innate skill and there-

fore fairly straightforward for a bright person. This is simply not so. Seeing opportunity is a particular skill in and of itself – and one that requires tools and training to learn. It's also very hard to "see" opportunities in work areas that are increasingly digital. It is easy to observe a backlog of parts on a production line, but digital processing can cloak similar conditions in an office.

Another problem that can compound the issue is that high-knowledge managers know their employees are also high-knowledge, and so they sometimes take the position that their employees don't need to be managed.

It takes quite a lot of humility to find opportunity. Sometimes, being smart simply makes it that much harder.

OPPORTUNITY #18

IN SEARCH OF WORLD-CLASS PERFORMANCE

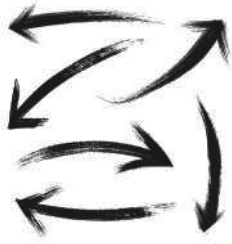
"World-class" or "best-in-class" are terms that organizations like to use to describe themselves or as a standard or benchmark for comparison. These terms are often used to provide some kind of blanket description. For example, a company is a world-class leader in product design, customer service or supply-chain optimization. Unfortunately, this often doesn't mean much to customers, and it's not very helpful when you're focused on performance improvement. Most performance improvement initiatives are either function- or process-based; the more granular you go, the more difficult it is to accurately define what makes an organization world-class when compared with others.

Consultants have tried for years to develop "capability maturity grids" for various functions to find a way to determine how close a function is to being world-class. The idea is to identify a number of critical things that

a function is supposed to do and then have descriptions of varying degrees of "maturity." Consultants then determine which box best represents the current function. Although maturity grids can be useful in providing some guidance as to where we might look for opportunity in an organization and what direction we might head, we haven't had much luck with them as a tool for improvement. It's often difficult to gain agreement on which box a function belongs in, and standard maturity descriptions sometimes come across as a little too "canned" to front line managers.

We find that the simplest way to express how a process or function compares to that of other well-run organizations is to observe its current productivity level. This is the percentage of the day that the resources within the process or function are adding value. The definition of "adding value" is very important here. We define "adding value" as activities that a customer would readily pay for in order to receive a product or service if they knew about them. If something needs to be fixed or reworked, for example due to some kind of internal error, we see that as not adding value. Many managers overestimate their current productivity. Often the work to fix something is both significant and required, but does not add value from the customer's perspective. Customers would be harsh critics if organizations let them assess their productivity, but it's a helpful perspective for performance improvement.

OPPORTUNITY #19



MANAGING VERTICAL FUNCTIONS IN A HORIZONTAL PROCESS

Due to the vertical functional nature of most organizations, workloads can quite easily become unbalanced when approached from the perspective of a horizontal process. In any organization, work flows through a process and certain activities are required to keep the product or information flowing. The activities that people are required to do, and the associated time that those tasks take, can change fairly significantly. The complication here is that work also flows from one specific function to another, throughout the process. Each function along the process can have varying productivity levels. This is, of course, an opportunity if you can figure out how to capture the excess capacity at the time it's available.

In an ideal environment, you'd probably manage by process, rather than by function, and simply shift your resources around when you need to. This often doesn't happen, so organizations live with excess resource capacity buried within the process for certain periods of time. The reasons

why it's hard to shift resources around are fairly practical. Here are a few:

- It's much easier to organize by function, rather than by process.
- There often isn't a timely understanding of the functional workload levels, making it hard for managers to know when capacity is available.
- Communication channels between functional departments are not always effective.
- Managers tend not to want to lend their people out in slower work-volume periods, anticipating that volumes will soon increase and then their people won't be available.
- Shifting resources between functions requires increased skill flexibility.
- In union environments, labor rules may not allow it.

There is no simple remedy for improving workload balance, but there are a few things that can be helpful to keep in mind. Remember to keep a process perspective when you're looking at workflow; measure resource demand and available capacity throughout the process; focus on the information transfer points; and understand skill mix and policy constraints. This part is mostly academic. The harder part, arguably, is getting people to actually lend their resources.

OPPORTUNITY #20

ARE SUGGESTION BOXES USEFUL?

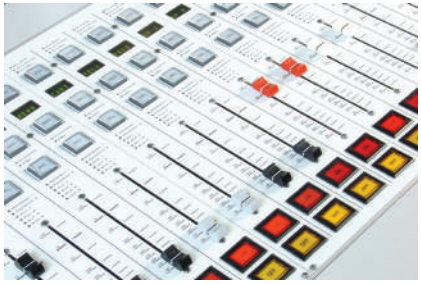
Suggestion boxes are one of those seemingly good ideas that can easily backfire. When we are studying a process area, we create a big wall map, which is a visual presentation of how the process works. It makes it easy for employees to see how and where their efforts fit into the whole process. To encourage collaboration, we walk employees through the process and get them actively involved in identifying where the constraints and operating problems lie. We give them a red pen, and let them scribble whatever detailed information is appropriate to highlight the issue. Afterward, we make a list of all the identified opportunities and create what's appropriately called an "opportunity list." It's a similar concept to a typical suggestion box, except that we effectively take the box to the employees, rather than wait for them to go to the box.

However, there's a real danger lurking in this tactic and one that has burned us a few times over the years. If you ask people for their ideas and

insights, you heighten two key expectations. The first is that you get people expecting that something is going to be done to solve their problems. Unfortunately, in many improvement efforts, most problems are left untouched. The simple Pareto principle (also known as the 80/20 rule: 80% of the effects come from 20% of the causes) usually governs these type of lists, which means that only 20% of opportunities will be addressed (in practical terms, even that number is probably high). The second key expectation is somewhat related to the first. If you ask people for their ideas, you create a reciprocal obligation, where people expect to be kept informed about what is happening to their ideas. It's all too easy in the heat of a project to forget this simple obligation.

So the danger of going the suggestion box route, however you do it, is that you raise people's expectations and then leave them feeling that their ideas have been seemingly ignored. Despite its pitfalls, the suggestion box is a useful way to encourage collaboration and generate opportunities. You just need to make sure that you manage expectations and have a communication strategy figured out well in advance.

OPPORTUNITY #21



THE 10 KEY PROFIT DRIVERS

We once tried to convince a Madison Avenue advertising firm to identify and assess the value they could bring to our firm. We were looking to hire them to help with some branding work, but we were having a tough time making a connection between what they were proposing and what we felt we needed. We suggested that they do something similar to what we do when trying to convince someone to hire us. Before a client ever hires us to work for them, we perform an "opportunity analysis." It's a kind of due diligence to determine if there are any opportunities where we can help a company improve, above and beyond what they are already doing. The basic concept is to assess the performance of the operating environment and link the historical outcomes to the organization's financial results. By using studies of real-time operations, the analysis becomes a living picture of the organization, rather than a PowerPoint deck of typical platitudes about how to improve. It also allows us to incorporate cultural

issues, which are sometimes overlooked when the focus is on technical issues.

We asked the advertising agency to adopt a similar approach, i.e., do an "opportunity analysis" of our operation, so that we could better understand the value they could provide. We invited them to critique our existing methods, so that we could understand what was lacking and where they thought they could guide us. We even offered some of our own staff to help with the analysis. They told us that branding had tremendous value, but that it was impossible to measure it directly to outcomes. We wondered if there might be some link to an increase in sales? They swiftly told us that we were kidding ourselves if we thought we could impose our world view on the advertising industry. Not surprisingly, the relationship didn't work out.

We prefer to think about cause and effect in more simple terms, believing that in many cases there is a correlation between actions and outcomes. So when we look at organizations to assess opportunity, we focus on these 10 key profit drivers:

- Revenue
- Material costs
- Direct labor costs
- Indirect labor costs
- Fixed overhead costs
- Variable overhead costs
- Accounts receivable
- Accounts payable
- Inventory
- Cash

We make the assumption that doing things differently should have some effect on at least one of these key profit drivers. If it does not, then we have to question whether those actions are actually worthwhile. In the next 10 Opportunities, we will look at each driver and provide some more detail on what we look at, and how we derive opportunities.

OPPORTUNITY #22

THE PROCESS OF GENERATING REVENUE

Most organizations would rather focus on increasing revenue rather than reducing cost. Cost reduction is generally perceived as fairly negative, whereas revenue improvement is almost always positive. But many improvement projects focus on cost, rather than revenue. Why is this? There are a few reasons, but the basic issue is that revenue improvement is perceived as having more risk associated with it in terms of achieving a successful outcome. Cost reduction is fairly straightforward, at least intellectually, and there are usually lots of process measurements available. Revenue can be a little nebulous – often more art than science in many organizations – and measurements are generally strong at the outcome level, but fairly weak through the actual "revenue" process. The one added risk factor when focusing on revenue is that sales cycles can be lengthy, which means that the results of an improvement initiative usually take longer than one that focuses on reducing costs.

However, it's precisely this "black art" aspect of revenue that makes it an area where opportunities to improve can exist. Revenue is a complex topic that involves both strategic decisions (e.g., which products and which markets) as well as more tactical operational issues (e.g., how do we market and sell to targeted customers?). For brevity we will focus on the more operational issues. In basic sales and marketing environments, many organizations rely on the quality of their salespeople and tend to watch their sales rise and fall with the economic tides. To actually manage sales in a way that has a chance of deliberately affecting outcomes requires a leap of faith that actually doing (or saying) things differently will, at some future point, positively impact the end results. To do this, organizations need measurements not unlike the kinds they use in more traditional-process environments.

In the end, revenue is driven by units sold and the average price per unit. Fundamentally, you can either increase the number of units sold or increase the average price. If we take "units sold" as an example, and break it down into its basic building blocks, you eventually get to specific activities that marketing and salespeople within the organization are doing every day. So in order to find opportunity, you need to make the connections between what those people are doing and the end result of their activities. For example, opportunities can be identified within what's often referred to as the organization's "sales funnel" by looking at the volume and type of accounts that enter the funnel, and how many of those are converted to the next selling stage and eventually into more revenue. Every revenue stream can be examined as a funnel, and both volume and conversion opportunities can be highlighted. But to do this, you need fairly clean measures through each funnel, which are not always readily available.

The operational opportunities to change or improve revenue outcomes, or simply add more predictability, lie in what people in the sales and marketing environment are doing. It's not always easy to get a handle on their activities, but it's a necessary task for both finding opportunity and improving revenue-generating capability.

OPPORTUNITY #23

THE CONFLICTING OBJECTIVES OF MATERIALS MANAGEMENT

The second profit driver we will examine is material costs. Material costs can make up a significant part of a product's cost structure – often many times more than labor costs – so it's a good profit driver to focus on in order to find opportunities.

When breaking down material costs into their basic components, we look for opportunities to either reduce unit costs, or reduce the volume of material needed. On the unit cost side, you might look for alternate sources of key items or developing leverage by consolidating suppliers. Opportunities to reduce volume might include reducing parts complexity or managing material yield (reducing material lost through the process in one way or another). These changes can all provide opportunity for improvement, but the real challenge is to try to improve the way material is managed throughout the order-to-payment process. This is more sustainable from

an ongoing profit-improvement perspective, but it's also much more difficult.

Impacting this area is complicated by the conflicting objectives of materials management. Materials managers must try to minimize inventory levels, while also ensuring that product is available when required. At the same time they must also try to minimize distribution costs, prevent equipment downtime due to parts shortages, and procure parts and materials at the least overall cost. The contradictory nature of many of these objectives means that materials management policy has to be built around trade-offs. For example, you can lower stock levels by increasing the replenishment frequency, but this increases freight and handling costs. You can consolidate suppliers or parts ordering, but this may well be at the expense of higher inventory levels. You can have more stocking locations, but this can increase stock and labor requirements.

So while it's a good area to find opportunity, because the flow of materials crosses many functional borders you need to be wary of the inherent conflicts (and resulting consequences) of any changes you might make.

OPPORTUNITY #24

THE TWO COMPONENTS OF DIRECT LABOR COSTS

The third profit driver we will examine is direct labor costs. Direct labor is a sensitive area for obvious reasons. Nevertheless, it is frequently targeted when companies are trying to reduce their operating costs, because it's one of the more immediately "compressible" costs. What this means is that you can often reduce labor costs fairly quickly in relation to how volumes are fluctuating. Typical tactics include reducing shifts and overtime, or combining positions.

Direct labor is driven by hours worked and wages per hour – and opportunities exist in both of these components.

The number of hours worked in turn is driven by how many people you need to run a process to achieve some volume output. So there are two distinct analytical questions to ask: Firstly, how do you staff the process and how well does the process run? The more problems and issues that slow the "speed" of the process result in needing to run it longer. The

opportunity is to eliminate variation and "downtime" of a process, so that more work can be done in a shorter period of time. Secondly, ask: How many people are needed to operate the process? The opportunity here is to see if there are any positions that aren't needed or that could be combined with others. In some environments, where volumes can fluctuate significantly (such as hotels and restaurants, for example), a key issue is to assess what the true minimum staffing levels are when there is little or no volume.

The key to finding opportunity in the other part of the equation, i.e., wages per hour, is to reduce the average wage cost. This is more about figuring out how to most effectively use the various wage rates that are available, rather than lowering wages themselves. The two main ways to realize opportunity here are to reduce overtime requirements (thus reducing the premium portion of wage costs), and to make sure that work is properly allocated to the appropriate pay level.

OPPORTUNITY #25

HOW MUCH INDIRECT LABOR DO YOU REALLY NEED?

The fourth profit driver we will examine is indirect labor costs. A surprising amount of cost is often tied up in this category, which includes supervisors, material handlers, quality technicians, mechanics and IT support – all functions that are required to support the production of goods or services. These functions are important to keep organizations working, but it's not always easy to determine how many people are actually needed in each one. This is particularly true where job functions are not repetitive, or tasks change significantly through the day or week. (It's a little easier to get a handle on more repetitive task-type positions because they have limited variation.)

The first key opportunity to look for is whether or not the organization has any tools to determine how many indirect people they need. Even in organizations that might otherwise be considered "world class," it is not

uncommon for us to find something of a black hole when it comes to determining indirect head count. If there are no analytical tools available, it is usually a safe bet that the organization has more indirect costs than required. Often the number of indirect staff is driven by historical "rules of thumb" or is a reaction to some kind of service failure. This can lead to these areas always being staffed to what is essentially their peak workload conditions. This may help internal service levels, but it's obviously a fairly expensive approach.

Generally, the amount of indirect labor required is driven by the number of operating days and/or process line hours. In a manufacturing facility, for example, for every line hour you operate you are likely to need some kind of indirect support. When the line is not operating, there is often no need for these indirect functions. This basic concept holds true in any operating environment where you have direct and indirect resources. So the two basic questions to zero in on are:

1. Do you have the right number of indirect people staffed on a shift or operating period?
2. Can you find ways to reduce the actual operating hours or number of shifts needed?

One note of caution: We've seen a number of organizations do more harm than good by reducing indirect costs without fully considering the knock-on effect – the main one being that this can slow the process in general and end up increasing total process costs. In fact, sometimes actually adding indirect labor expense in select areas is useful to increase line speed or uptime, which in turn can optimize total labor costs.

OPPORTUNITY #26

THE VARIABLE NATURE OF FIXED OVERHEAD COSTS

The fifth profit driver is fixed overhead costs, such as rent, insurance, certain taxes and salaried personnel. The key opportunity to consider within this cost area is to challenge the notion that fixed costs really are fixed. Variable costs are often targeted in performance-improvement projects because it's easier to see how they fluctuate with respect to volume. Fixed costs, on the other hand, aren't as linear, but they do in fact fluctuate to some degree as volumes change. Organizations have a tendency to add fixed costs as they grow. For example, companies may need to expand their warehouses or offices as they take on more volume or add executives. So while fixed costs are not linear, there is a step-change relationship to growth.

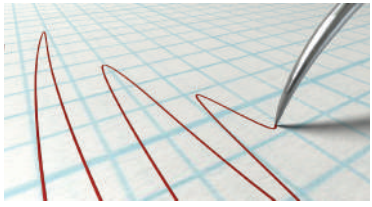
Unfortunately, this doesn't work very well when companies stop growing or start to decline. When a company's volumes decline, it is often stuck

with more fixed costs than it needs. Fixed costs are often much more difficult to reduce than variable costs, because they represent a longer-term commitment (such as multi-year leases on space). Occasionally we have seen fixed costs added in anticipation of future volumes that never materialized. It's therefore informative to look at how organizations hedge these kinds of investments.

One analytical technique is to look back to a time when the organization was more profitable at similar revenue volumes. Understanding how the overhead costs changed over time and the underlying reasons why can lead to opportunities to remove overhead costs that have not added value. Organizational decisions over the years may have introduced technology, created new divisions or added executive positions that all made sense at one point, but can now be challenged or rethought.

When volumes are going down, some organizations find creative ways to exploit their excess capacity by doing such things as using dormant space throughout periods of the day or week, or renting out space that isn't currently required. When volumes are going up, the opportunity is to try to keep overhead costs more variable than fixed, keeping in mind how tough it can be to get rid of the latter at a later date.

OPPORTUNITY #27



THE BY-PRODUCT SAVINGS IN VARIABLE OVERHEAD COSTS

The sixth profit driver is variable overhead costs. These costs can include such things as electricity usage, temporary storage, some insurance and taxes, travel and entertainment, and even overtime and temporary help. We don't always think enough about this cost area but we should, as it can be significantly impacted by improvement projects. If an improvement project can reduce the number of hours that an organization needs to operate, it will also reduce many variable overhead costs.

Finding the opportunity here requires understanding how these costs are allocated in the financial statements and then analytically drawing some correlations between these costs and process hours. Some connections are quite linear, so you can derive fairly strong correlations. Others are not quite so easy. Energy costs, for example, are usually based on both usage and peak-demand periods, so you might reduce usage while

actually increasing peak demand. Understanding this can also be helpful as it might suggest some ways to manage the demand profiles (such as staggering the start-up of equipment at the beginning of a shift).

Professional fees are also sometimes thrown into this cost bucket. We've had a few finance directors point out to us that one quick way to reduce these costs would be to stop hiring external consultants like us! As you can imagine, it's not our intention to put a spotlight on fee-based services, but there is some validity to their point. Many recurring professional fees have a way of drifting upwards over time, and sometimes it's difficult to quantify the value consultants bring to an organization. However, challenging professional fees requires a specific focus and is not usually correlated to other improvement project work. Generally, the key opportunity here is to recognize the costs that are being impacted, while focusing on project improvement in other parts of the organization.

OPPORTUNITY #28

WHERE IS THE MONEY?

The seventh profit driver, accounts receivable (A/R), may sound a little dull, but it is actually one of the more important barometers of the general health of an organization. A/R can be a very good indicator of how well the main processes of an organization are designed and how well they operate together. Because A/R is a measure at the end of the total product or service cycle, it's not always simple to pinpoint where related problems are actually occurring. Here are a number of process areas that can result in elongated receivables:

- The accuracy and cycle time of the order-entry process.
- The decision process for granting customers credit.
- The timeliness and accuracy of the billing process.
- The effectiveness and consistency of the collections process.
- Credit/return policies and process.
- Timeliness of cash/check deposits.

The interesting thing about A/R in many companies is that there are both customer- and self-inflicted wounds in this area. Some customers delay or withhold payments either as a way to manage their own cash flow or because of some dissatisfaction with the delivered service or product. Organizations inflict damage on themselves by not managing the various processes listed here in a deliberate and co-ordinated manner. This can be a little trickier than it seems because of all the different departments and functions involved in the various steps of the process. Generally, there are varying levels of customer power based on size and buying volumes, which can make collections issues a source of conflict between internal finance and sales groups.

Usually the best approach is to assess the root causes throughout the order cycle and then to attack the internally controllable issues first (i.e., the accuracy and timeliness of order entry, and consistent and deliberate collection processes). The success of freeing up some cash in a relatively short time frame can embolden the organization to then move on to some of the more politically sensitive collection issues.

OPPORTUNITY #29

BETTER, CHEAPER, MAYBE NOT FASTER

The eighth profit driver is accounts payable (A/P). The A/P function plays an important role in managing the cash-flow cycles of an organization. The objective of most performance-improvement projects is to increase the speed of a process in some way. However, this is generally not true in this particular area, since it might well be counterproductive to pay your invoices faster than you need to. In fact, the objective of a project in this area could be to slow down the process. So finding opportunity in A/P requires a slightly different mindset. Here are a number of things to consider in this area:

- What are the payment terms for suppliers? And how do they vary?
- Are invoices paid on time?
- How healthy are supplier-and-vendor relationships? If poor, how does this affect operations?

- Are there any discounts made available for quicker payment? Are discounts captured?

Understanding the detail of the payment terms and their effect on supplier relationships is important for understanding how the department needs to be managed. Understanding the actual A/P process can also yield opportunities. There are a number of recurring operating problems in A/P departments that can result in carrying excess labor. Some of these include:

- Ineffective use of technology.
- Inconsistent or unclear decision-making authority (e.g., resulting in partial payments).
- Supplier errors.
- Workload imbalances.

So although it might seem that the A/P process is not a priority for performance improvement, it plays a key role in allowing the organization to manage its all-important cash requirements. Its relative importance also increases significantly whenever the economy slows down – and managers are forcefully reminded why cash is king.

OPPORTUNITY #30

THE CONFLICTING OBJECTIVES OF INVENTORY MANAGEMENT

The ninth profit driver is inventory. Inventory reduction tends to go straight to the top of every production executive's priority list when interest rates are high. Even when interest rates and corresponding carrying costs are low, inventory is often a significant asset on the balance sheet and so continues to draw its share of management's attention.

The key for managing inventory is getting the mix and levels right. This is harder than it seems, because typically no one person is responsible for understanding and managing all of the integrated aspects of inventory control. Marketing forecasts and production plans drive purchasing actions. Purchasing feeds raw-materials inventory levels, which supply production. Production in turn drives finished-goods levels.

Warehousing and distribution costs are a result of the primary inventory decisions already assumed. Inventory managers must decide what the

most appropriate inventory levels and mix of inventory should be – weighing the risk of being out of stock when an item is required versus the cost of having too many items in stock. This is not a very easy thing to manage, particularly because it's dynamic.

To uncover opportunity in this area, we find that the best approach is to first quantify what the ideal inventory level should be. Again this is not so easy, but a fair approximation can be derived through some form of ABC classification based on usage-value, and marrying up current levels against forecast requirements. Once a reasonable level has been established, you can determine how much is excess. The cause of excess inventory can be roughly split between planning parameters and people's behaviors. The planning parameters (e.g., forecasting, lead times, service levels, safety stock levels, accuracy and order quantities) require technical analysis, and all can yield opportunities. The behaviors (e.g., purchasing, product engineering, scheduling and warehousing) are often driven by organizational policies. How people are evaluated and what affects their compensation can introduce conflicts when trying to optimize inventory levels. The simplest opportunity is often to identify slow or obsolete stock. Even this, however, can be problematic because eliminating stock can upset the finance department (e.g., the impact of write-offs on company financials) and sales (e.g., the impact of eliminating items that just might be needed for older products or past customers).

So you can see that while inventory is often ripe for finding opportunity, it can be something of a hornet's nest to try to manage levels down in a sustainable manner.

OPPORTUNITY #31

IT DOESN'T GROW ON TREES

The tenth and final profit driver we will examine is cash. Cash is, of course, the lifeblood of any organization, and its importance becomes all the more pronounced when you don't have much of it. Managing cash is exceptionally important when organizations are growing, because of the financial demands that growth can create. Finding opportunity in this area is something of a rehash of many of the opportunities we've discussed regarding the other profit drivers. Cash levels are a result of how you manage your cash sources (A/R, loans, etc.) and your use of cash (A/P, inventory, capital expenditures, debt repayment, etc.).

For analytical purposes, we think about cash in terms of how it moves out of an organization and then eventually back in, which is known as the "cash conversion cycle." The length of time it takes to convert invested cash back into cash can be calculated as follows:

Cash conversion cycle =
days inventory + days receivable – days payable

The important thing to identify is what is happening over time to the cash cycle. If the cycle is getting longer, this means that more cash is needed, which can obviously become a problem. If it's getting shorter, this means that cash is being freed up for other uses by the company at a faster rate. Based on what the analysis indicates, you can then turn to the profit drivers we've previously discussed to find some opportunities for improvement.

As a general rule for improving cash positions, tightening up the accounts receivable process is always a good idea.

OPPORTUNITY #32

10 KEY FUNCTIONAL AREAS

Most of the opportunities we have examined in this series have dealt with financial line items or at least fairly specific concepts. In the next 10 Opportunities, we will look a little more broadly at opportunities in functional areas. When it comes to opportunities, different functional departments have similar types of issues that cause problems in the workflow. However, what's interesting about functions is that they also have their own peculiarities, based on the nature of what their specific area is designed to achieve.

Some functions are fairly obvious in terms of what they are designed to achieve. For example, sales departments creates sales. Sales are, in turn, measurable. But what some functions are designed to achieve is not nearly as obvious. There is usually plenty of debate about what marketing, for example, is supposed to achieve – and even more debate about how to measure it.

We will examine some of the more common functional areas in organizations in greater detail:

- Marketing
- Sales
- Engineering
- Finance
- Procurement
- Production
- Maintenance
- Quality
- Logistics
- Information Technology

We'll try to give you a better understanding of the nature of the function, as well as some general concepts that are helpful to know when you are looking for opportunity. As discussed, and unlike some of the other "opportunity hunts" that we've written about, we will focus more on the intended purpose or output of the function, as opposed to the steps in the process.

OPPORTUNITY #33

FINDING OPPORTUNITIES IN MARKETING DEPARTMENTS

The first functional department we will discuss is marketing, which also happens to be one of the more difficult functions to assess. Marketing is tricky because it is sometimes difficult to draw clear connections between what marketing "physically" produces and the resulting impact of the effort. John Wanamaker, a U.S. department-store merchant and early pioneer in marketing, is attributed with the famous quote that sums up this sentiment: "Half the money I spend on advertising is wasted; the trouble is I don't know which half." He said that about 100 years ago, but it still resonates with many people today.

Despite the difficulty in establishing clear cause and effect, marketing plays a vital role in helping to provide clarity about what an organization provides its customer or user base. To keep ourselves appropriately oriented in this area, we believe that the primary responsibility of the mar-

keting group is to deliver leads that, in turn, will ultimately become profitable customers. Marketing's performance in this regard can usually be improved by focusing on some key aspects. We focus on two things: customer targeting and the actual delivery of marketing programs. Below is a checklist of questions designed to help a manager uncover areas of opportunity:

Opportunities in targeting customers

- Are product/market segments meaningfully segmented?
- Is the customer base segmented by different buying characteristics?
- Is there a strategic focus on the highest potential products/markets?
- Do the actual marketing messages and collateral communicate a clear and differentiated customer value?

Opportunities in the delivery of marketing programs

- Is the actual selection process for marketing programs effective?
- Are delivery processes productive and timely?
- Is there an effective project-management system?
- Is performance assessed in terms of leads generated or increased sales (not just "clicks," campaigns or events)?
- Are the organizational reporting structure and compensation design appropriate?

OPPORTUNITY #34

FINDING OPPORTUNITIES IN SALES AREAS

Sales is not a difficult area in which to find opportunity, but it's a difficult area in which to capitalize on it. We find that many sales organizations are quite resistant to change, because it tends to add accountability to what is often a fairly freewheeling occupation. Many sales executives are in their position because they were very good salespeople, but the attributes that make somebody a good salesperson do not always correlate well with some of the attributes of a good manager. Salespeople tend to be outgoing, confident and expressive, but they also tend to lack discipline when it comes to administrative responsibilities.

Some of the more mundane, analytical aspects of selling that don't always get the attention they deserve (e.g., account planning, time management, sales funnel analysis, follow-up) are critical for success over time; they help an organization get through bad as well as good market cycles. This is perhaps particularly true with complex, longer sales cycles, where a

predictable stream is created by managing the early stages of the sales funnel.

Notwithstanding the practical problems of trying to manage change in sales areas, the main focus for performance improvement is to improve sales effectiveness and efficiency. In essence, can you sell more services or higher-margin products at a lower total cost? In financial terms, the objective is to maximize the contribution margin that sales generate at the lowest total selling cost. Below is a checklist of questions to help you probe for opportunity in a sales department:

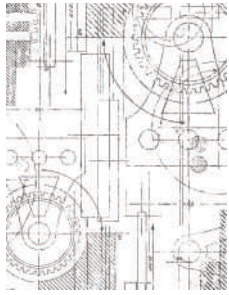
Improve selling effectiveness

- Can prices be raised?
- Can discounting be reduced?
- Can the product/service offering be simplified?
- Are sales calls appropriately targeted, and call time appropriately distributed by the quality of the prospect?
- Are salespeople actually promoting and selling the right products/services?
- Can the sales cycle be reduced?
- Are salespeople moving sales along at the right rate?
- Can the product/service offering be improved in ways that matter to customers?

Improve selling efficiency

- Can you improve sales utilization?
- Can you increase time spent actively selling?
- Can you reduce travel time?
- Can you reduce time spent on administration?
- Can you reduce time spent on service issues?
- Could you realign and reduce the number of territories?
- Can you reduce support costs?
- How are support requirements determined?
- Have support costs grown disproportionately over time?
- Can some support tasks be simplified or eliminated?

OPPORTUNITY #35



FINDING OPPORTUNITIES IN ENGINEERING DEPARTMENTS

There are a couple of typical questions we explore when we're looking for opportunity in engineering departments: (1) Can you reduce cost by increasing the productivity of the department? and (2) Can you simplify the design to benefit customers externally, and sales, production, installation or service groups internally?

Increasing the productivity of an engineering group requires quantifying work; scheduling the work with tighter parameters; and then managing to those tighter parameters. This is easier in engineering departments that handle fairly repetitive requests. The more creative or unique the engineering requests, the more thinking and decision-making time is required, which means a greater reliance on clear direction and communication from other functional departments. It also makes breaking down the workload more difficult. However, like other departments

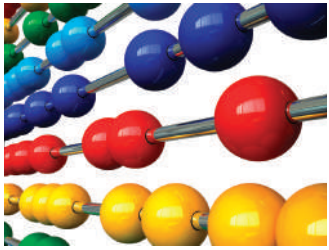
that have "custom" or somewhat "custom" demand, many of the activities required to fulfill the demand may be actually quite repetitive.

The key concept to focus on is "billable utilization." How much of an engineer's time is spent on activities that are billable or "earned"? If you can fairly accurately determine billable or earned hours, then analyzing what the engineers are doing in the non-billable time will uncover opportunities. Here are a few red flags that generally indicate room for improvement:

- Workload is not clearly estimated or estimates are not considered to be reliable to managers.
- The planning system (work in, work out, backlogs, all by work type) to determine work prioritization and resource requirements is inconsistent.
- There are communication problems between departments that result in excessive rework.
- Productivity isn't clearly measured.
- Performance indicators are not well understood outside of the department.

Opportunities for design improvements often come from peripheral functional departments, i.e., the people who actually use the engineering services, such as customers, sales, production, maintenance. Interviewing these user groups often leads to ideas that can simplify the complexity that can get built into things over time. Some of these opportunities make the product or service easier to use, easier to build or deliver, or easier to maintain.

OPPORTUNITY #36



FINDING OPPORTUNITIES IN FINANCE AREAS

In many functional areas we find opportunity by trying to determine the purpose of the function, and then seeing if we can maximize the time that people spend performing activities related directly to that purpose. For example, salespeople should be selling; engineers should be engineering; mechanics should be doing maintenance and so on. The idea is to identify what people are doing when their activity is not related to the function's purpose and then try to eliminate or at least reduce that time. In a sense you leave the value-added time alone and eliminate some of the non-value-added time. Finance is a little different. While the basic analytical approach is similar, the difference is that we often find that the biggest opportunities lie in actually challenging some of the value-added time. If you look at some of the activities performed by finance personnel with a critical, external eye, you can often find people doing things for reasons that may no longer be valid.

Here are a few examples of typical opportunities in finance areas and corresponding questions that can be explored:

- The budgeting process is cumbersome. Can the process be streamlined?
- Reports are created that are not used by management. Can reports be eliminated or consolidated?
- Accounts payable personnel spend too much time fixing supplier or upstream invoicing errors. Can error-fixing be pushed back to suppliers or fixed upstream?
- Accounts receivable personnel have an inconsistent process, in part driven by sales concerns regarding collecting from key customers. Are stated customer concerns valid?

Finance areas are capacity-oriented processes, where work is commonly repetitive in nature and the actual flow of work is fairly predictable. Opportunity can also be found by studying work flow, paying particular attention to the bottlenecks and constraints, and where work is "handed off" to the next person or department. Finance departments typically have high workload peaks during specific periods of the month and year, and tend to be staffed in order to manage these peaks. Opportunity can reside in finding creative ways to move some of the work requirements out of these peak periods.

OPPORTUNITY #37

FINDING OPPORTUNITIES IN PROCUREMENT

Procurement is a function that has gained in prominence over the years. It is now an increasingly important strategic link for many organizations. The four general stages of purchasing are:

- Basic buying to operate
- Unit cost optimization
- Consolidated purchasing
- Supplier co-operation

Each stage represents an opportunity to lower the overall relative spend for an organization.

When looking for opportunity in procurement areas, we first try to get a handle on the actual amount spent annually on goods and services. This sounds simple, but it's sometimes harder than it seems. Many organizations don't really know their total annual spend, in part because many people are making purchasing decisions across the organization. This

leads us to the second area of investigation: Who actually makes the buying decisions in the organization and how is this managed? Is buying centralized or decentralized, or both? If you can figure out how much is spent on what, and who is making those decisions, you can begin to understand at which purchasing stage the organization is presently operating (based on the four general classifications listed). Each of these stages requires fundamentally different ways of thinking and operating (and different skill sets).

From a practical operating point of view, here are a few of the opportunities we often find in procurement areas:

- Order processing lead times are too long. As a result, safety stock is higher than necessary to compensate.
  - Missing or incorrect information on purchase requisitions delays purchase orders being issued.
  - Order review processes are cumbersome.
  - Purchase authorization levels are too low, too high or not well defined.
  - Large workload imbalances exist from not "leveling" negotiations throughout the year.
- There are few identified alternate sources for critical services, materials or parts.
- There is no program in place to identify and standardize parts.
- The material requirements planning (MRP) system is considered largely unreliable. Inventory-control parameters may be inaccurate.
- Buyer performance is not effectively measured.
- Supplier performance is not tracked.

Because of the frequent "process" issues in procurement areas, it's easy to start focusing on the group's productivity (e.g., orders processed and cycle times), but this is usually a mistake. The real organizational value in improving the performance of a procurement group is to reduce the organization's overall relative spend on goods and services.

OPPORTUNITY #38

FINDING OPPORTUNITIES IN PRODUCTION

In production, management's task is to effectively schedule the multitude of component processes that run in a series or parallel with each other. In operations that are process-oriented, management must schedule resources and output around the limiting constraints (process bottlenecks). These are often "make to stock" types of operations. In more customized fabrication and assembly-oriented operations (more "make to order"), management must schedule and adjust available resources to match the fluctuations in demand. This can be a little more difficult, depending on how variable, or predictable, the demand happens to be. In either type of environment, opportunities arise when organizations don't control and manage the component parts that make up the whole.

In an ideal production environment, work moves through the process according to a well-sequenced and well-executed schedule. But as operations grow and become more complex, scheduling is increasingly diffi-

cult. Production is not always effectively scheduled, or controlled, based on the specific tasks required from input to output in terms of labor and machine hours. Many companies invest in enterprise resource planning (ERP) systems, but systems are rarely used as they were designed.

The results of a breakdown in scheduling co-ordination are low productivity, extended cycle times, and an inability to consistently meet scheduled shipping dates. Production can end up working off rush, short and late lists (often in response to sales concerns), with front line supervisors trying to pull the work through the plant in a reactionary mode.

So the key to finding opportunity is to focus on scheduling co-ordination. Here are the critical control processes in production where opportunity often can be found:

- Demand forecasting
- Equipment and facilities planning
- Production planning
- Order scheduling
- Loading and scheduling of machines
- Planning and scheduling of labor
- Planning and control of material
- Quality control
- Equipment maintenance

OPPORTUNITY #39

FINDING OPPORTUNITIES IN MAINTENANCE

As technology has advanced and organizations have become more and more reliant on smoothly running equipment, viewing maintenance as a critical function to support throughput, rather than as a cost center to maintain assets, has become a common perspective. Improving key equipment uptime can be very valuable, because of potential ripple effects down the line. To put it a little differently, downtime of key equipment can be extremely expensive, because it hurts scheduling predictability and tends to lead organizations to either absorb costly waiting time or start making products out of sequence. The latter causes lost time with unnecessary changeovers and throws a wrench into inventory planning, which damages throughput down the road or increases inventory requirements.

Looking for opportunities in maintenance areas generally has two drivers: (1) to increase uptime of equipment, particularly key equipment, and

(2) to improve the productivity of mechanics. We'll look briefly at each one and give some thoughts as to how to find areas for improvement.

To find opportunities to increase uptime requires good downtime tracking, which is sometimes a general weakness in itself. The keys here are to identify and focus on the critical equipment (i.e., any equipment that could become a throughput constraint if it goes down) and then understand any and all reasons why the equipment is down when it could or should be running. Some downtime has little or nothing to do with maintenance (e.g., changeovers), so the causes need some segmentation. This kind of investigation often leads to an assessment of the effectiveness of the preventative maintenance (PM) program. PM programs are designed to protect the uptime of equipment. However, they are not always adhered to as rigorously as they require. Unfortunately this is often compounded when key equipment is needed to run, and stopping for planned maintenance might impact throughput. The opportunities here might be to change the scheduling of the planned maintenance to minimize disruption.

Opportunity to improve the productivity of mechanics is often related to how much time is spent during the shift actually doing maintenance, or what we've referred to in the past as "wrench time." Spending a few "days in the life" of a mechanic and categorizing how their time is spent can be quite eye-opening. Depending on the environment, mechanics can spend a great deal of time traveling to jobs, waiting for equipment availability, and getting the tools and supplies needed to perform tasks (particularly for unplanned maintenance). The opportunities to improve productivity often relate to the accuracy of the work order, the proximity of associated tools and supplies and, of course, the effectiveness of the actual work completed. Other opportunities that are sometimes relevant include where and how the maintenance groups are organized, where and how tools and supplies are staged, and the accuracy of time estimates in work orders.

OPPORTUNITY #40

FINDING OPPORTUNITIES IN QUALITY

Quality management has gone through many evolutions over the last 20 years, driven by the popularity of gurus like Joseph M. Juran, W. Edwards Deming and, to a lesser degree, Philip B. Crosby. Different concepts have caught on, such as Total Quality Management (TQM), ISO 9000 and its variations, Six Sigma and more recently its latest iteration, Lean Six Sigma. Six Sigma was originally a very data-intensive, engineering-based problem-solving approach driven to virtually eliminate defects. Lean has similar intent, but is more throughput-oriented.

Finding opportunities in quality departments really depends on the type and purpose of the department. For our purposes we'll ignore the internal groups more geared to performance improvement and focus on quality departments genuinely designed to fix or reduce defects in products or processes. This type of group is fairly standard in manufacturing industries, where there are specific quality checks throughout the

operation (e.g., receiving, process inspection, packaging, etc.). Opportunities here are based on how effective the quality interactions are at improving quality, which can be assessed by studying the results and corresponding response actions. Where quality interacts with the process is also important. Sometimes there is too much inspection performed after a constraint, which unnecessarily wastes capacity – this is not so much a quality opportunity as it is a throughput opportunity.

Opportunities to improve the productivity of the quality department can include looking at why and how many quality checks are done at various production stages and for different products. Suppliers tend to operate at varying levels of consistency, but often quality checks are more generic (e.g., 100% inspection of all incoming parts). Like most support departments, scheduling can also be a source of opportunity if waiting for parts or supplies is a significant cause of lost time.

OPPORTUNITY #41

FINDING OPPORTUNITIES IN LOGISTICS

Logistics sometimes means different things to different companies. We once made the mistake of pointing this out at a trucking convention (see *52 Lessons Learned,* Lesson #2: "Don't Put Down Your Audience"). Since then logistics has arguably become even further complicated by the common use of the slightly fancier term, supply-chain management (SCM). Some argue that logistics is a subcomponent of SCM and that SCM is more comprehensive in nature, while others believe the opposite. To avoid alienating another generation of transportation managers, we won't spend time here trying to differentiate between the two. Instead we will concentrate on logistics as a function.

For simplicity we define logistics as the "management of material movement in the right quantity, at the right place, and at the right time." Logistics involves the inbound movement of material and supplies, and the outbound movement of product. Organizations either use their own

trucks, outside carriers, or combinations of the two to move all this material around. So the basic questions in this area, as far as opportunity goes, are: Can you reduce transportation costs and can you improve service reliability?

Logistics is a complex thing to manage. It's a cross-functional management process that is intertwined with many different functional areas in terms of communication, as well as supply and demand timing. It's further complicated by the nature of supply-chain decisions, which are often trade-offs with conflicting functional objectives (e.g., large purchase quantities versus small inventory levels). The key functional disciplines involved in managing logistics include:

- Order management and fulfillment
- Inventory management
- Procurement and supplier management
- Warehousing and material handling
- Customer service

The hunt for opportunity is often most effective when you start with an analysis of service results and carefully follow the service problems back to their possible sources. It's also useful to follow an actual order through the entire flow, identifying where and when and why orders stall or go off-schedule. Both of these approaches, one starting from the end and the other from the beginning, tend to lead you to similar root causes.

OPPORTUNITY #42

FINDING OPPORTUNITIES IN INFORMATON TECHNOLOGY

For many people the IT world can be something of a black box. There is a general recognition of its importance, but often a lack of understanding of how it really operates or could be improved. Increasingly, however, as people become more accustomed to operating in technology-driven environments, managers have started to look at IT with a more calculated view as to how to make it operate more effectively. In fact, like many other service environments, Lean principles are being borrowed from the shop floor and applied to parts of the IT function, particularly those with more routine processes.

IT generally consists of two main areas: application development and maintenance (the part of IT that works with other functions to develop and maintain software); and network infrastructure (the group that maintains the underlying hardware, software, resources and services that create an IT

environment). Each area is quite different in design and management requirements, so finding opportunity needs to be adjusted to accommodate the different environments. We will focus on the applications side of the IT world and discuss some of the ways to look for opportunity there.

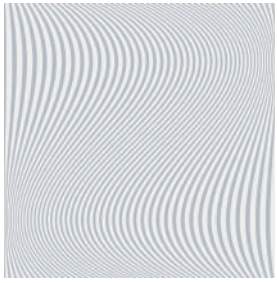
If there are any recurring conflicts between operating functions and IT, they usually revolve around application development and maintenance. Applications are simply projects, so many of the same techniques used to uncover opportunities in project-management environments can be applied here. Application maintenance is similar to other types of maintenance or engineering environments, where opportunities exist in understanding the true backlogs and prioritizing the assignment of work.

Common user complaints are that applications are slow to be developed, slow to be modified, and have either too little or too much functionality. Of course there are usually reciprocal complaints coming from the IT perspective. To find opportunities in this area, often the best place to start is by interviewing user groups and understanding their perceptions of how well their requirements are being met. Some of the common opportunities we find include:

- Lack of clarity in user requirements (and an unclear link to business strategy)
- Inconsistent rules for prioritization
- Insufficient "reuse" and too much redevelopment
- Too many user requirement changes, creating rework
- Application bugs
- Change-management problems during installation

As with other service functions, organizations can have real problems in this area if application development is a corporate function, and its output is not owned and driven by the operations side of the business.

OPPORTUNITY #43



HOW TO STRAIGHTEN OUT ALIGNMENT

Over the years we have become increasingly fond of the term "alignment," even though it sounds a little like one of those trendy buzzwords. It's a very good, concise word for helping us describe whether or not all managers are moving together in the same direction. This turns out to be a vital factor in whether or not opportunities that we've identified can ever be addressed and potential performance gains realized.

When organizations are not aligned, they have trouble getting strategic initiatives accomplished, and general operating performance suffers because of conflicting individual and functional objectives.

However, alignment must be defined clearly. People don't know what it means if it's used as some kind of strategic organizational aspiration. Alignment needs to be broken down into meaningful components that people can understand – components that relate to their environment and day-to-day activities.

We break down alignment into three components:

- Clarity of direction (knowing where you are going)
- Clarity of communication (managing organizational messaging)
- Consistency of rewards and consequences (rewarding people appropriately)

In the next few Opportunities, we will spend some time trying to make the word "alignment" as meaningful as it is important. We'll look at each of these component elements and discuss how they create opportunities – and how they may need to change in order to improve performance.

OPPORTUNITY #44

IS EVERYONE ON THE SAME PAGE?

In the previous Opportunity, we talked about the need for organizational "alignment" and its three components. In this entry, we will focus on the first component, clarity of direction. The concept is fairly straightforward: all levels of an organization need goals that reinforce each other in order to move forward in a desired direction. Making this a reality, unfortunately, is much more complicated. It means more than just aligning the levels of an organization; it also means aligning functional objectives. It's hard enough aligning levels. Aligning functions (primarily because of the conflicting objectives we've discussed before) is even more difficult.

Take something as basic as a plan to grow sales. Top-line projections are made and put into budgets, but forecasting where that growth needs to come from (e.g., new business, base business, market growth, from competitors, etc.) isn't so easy. At the next level, regional and territory sales managers need to forecast growth by product (or service) and by

customer. This is important, because these forecasts feed other departmental requirements, which need to be aligned. When you get to the sales rep level, the direction they are given on a monthly, weekly and even daily basis needs to reinforce the overall sales strategy. Implicit in higher-level planning are the lower-level activities that need to be done. The front line of the business (and not just in sales) is where we often see the integrity of the organization's alignment break down. For example, salespeople might be given direction as to how many sales calls they should make in a week, but what's more important are the types of calls they need to make in order to achieve the plan. Being more specific about the types of calls (e.g., new accounts versus base customers) can dramatically change the required activities of a salesperson.

A good way to study directional alignment is to map out the tools that managers use to plan, execute and report on an area. Planning usually starts with higher levels of the organization and becomes more granular as it nears the point of execution. Reporting flows up and away from execution in a similar pattern. It's not unusual to find that the direction used to initiate planning and then later report back on it has little to do with the direction that is provided at the point where products or services are actually delivered. Finding those disconnects is often a rich source of opportunities to improve alignment.

OPPORTUNITY #45

ARE THERE ANY QUESTIONS?

Due to the fact that we travel to our clients' locations, it is often difficult to get our staff together in one place at one time. Twice a year we make an effort to bring the firm under one roof, so we can communicate company strategies and results. We have an open meeting, where our executives discuss the results and plans of the various parts of the business. The functional plans, as is the case with many organizations, often introduce changes of one kind or another. During the actual meeting, there are few questions asked, which sometimes fools us into thinking messaging was clear and well communicated. With alarming frequency, the next day we find that there has been a disconnect somewhere between what was intended in the messaging and what our employees actually took away from it.

Clarity of communication throughout an organization is difficult; it is also the second key component of organizational alignment. It's particularly important when an organization is going through any kind of change-management program. What people actually communicate to one another can either support the overall direction of the organization or

become an impediment and negatively impact results. When we look for opportunities to improve organizational communication, we focus on three distinct management levels:

- Corporate messaging
- Executive direction
- Front-line management

Corporate messaging, or any kind of broad organizational communication, is tricky because people listen to messages from different perspectives and then interpret the consequences of the message from their own viewpoint. Most people listen to and rapidly translate a message into how whatever is being discussed will impact them personally. So broad messages need to be simple and very clear about what is changing, why it's changing, and how those changes will impact individuals. To make sure that the intent is not misinterpreted, the message needs to be repeated at lower levels of the organization within smaller groups (and ideally one-on-one with impacted individuals).

Executive direction refers to how executives translate the overall organizational strategy into more discrete plans that help people understand how their objectives align. Breakdowns occur when the direct link is unclear or contradictory.

Finally, front line management carry messaging to employees on a daily basis. What they say, and what they actually do, will either communicate alignment or cause confusion.

One of the big issues with communication is that it's hard to keep messaging consistent throughout all three levels. Employees tend to be skeptical of change, and for the stated reasons behind the change. They often trust their immediate manager more than they do senior executives, and so the words and actions of their manager are very important for alignment.

OPPORTUNITY #46

HOW DOES THIS IMPACT ME?

The third piece of the organizational alignment puzzle is how the reward system supports it – or not. Rewards, whether compensation or recognition, have a powerful influence on employees' behaviors and can upend alignment fairly easily. For the purposes of finding opportunities to improve "alignment," we will focus on how reward systems and change programs can conflict with each other.

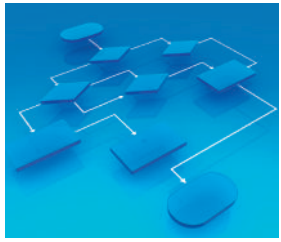
One of the basic problems is that reward systems tend to be fairly static and therefore don't always match the intentions of change programs. Organizations are reluctant to tamper with them (due to the turmoil this tends to cause employees), so change programs are often introduced without any associated change to reward systems. This can be problematic, because most change problems require actual changes in people's behaviors, at all organizational levels, so understanding what drives those behaviors and what consequences reinforce them is critical. Reward

systems are usually designed to influence people's behaviors, so you need to be sure the desired behaviors align.

We've worked with many organizations that introduced various creative modifications to their reward system to try to support their change program. As simplistic as it sounds, the ones that worked best were those where people received a meaningful financial reward. Modifications seem to work when you present a significant upside, but they don't seem to work when there is a corresponding downside.

The area where we most frequently see a disconnect between alignment and reward systems is budgeting. When management compensation is linked to budget attainment, there is a natural inclination to limit or manage improvement growth. This makes sense: organizations tend to demand improvement every year, so increasing performance too much in any one year is not only tough to achieve, but also ensures that subsequent years will be difficult as well. Here the system tends to reinforce incremental, rather than significant, change.

OPPORTUNITY #47



THE MISTAKE OF STUDYING PEOPLE AND NOT PROCESSES

One of the obvious ways to find opportunities to improve is to study a process within the organization and see if you can make it better (simpler, faster or less expensive in some way). The key to doing this successfully is to think about the process as a whole, and not fixate on the individuals working within the process. This is often harder than it sounds, because there is a natural tendency to map out a process and then very quickly move on to studying what people are doing within the process. One of the reasons is that people often don't really map out a process: they may create a wall map of activities within a process, but they don't study the actual process itself. The telltale sign is when you see a process map that has activities posted, but no volumes and no associated cycle times. Thoughtfully analyzing the process is an important first step before studying individuals.

You could, for example, break down an accounts receivable (A/R)

employee's activities in fairly fine detail, and determine how often they do certain activities and how long it takes them to do those activities. You could observe the individual and perhaps come up with some clever ways to change their activities or develop some new tools that help make their job easier and enable them to process work faster. These are all good outcomes, but it's entirely possible that you could overlook the actual process and miss some larger opportunities.

Studying an actual process requires a certain mindset that keeps you focused on the higher-level process, before you get into the weeds with what people are actually doing. Sticking with our example, studying the A/R process properly would mean answering the following:

- What are the types of A/R and what are the different value streams they need to follow? How does the volume split between these streams?
- What are the cycle times through the process? Can they be reduced?
- Why does the A/R process exist at all? What is the source of the work? Can this be influenced to reduce the volume?
- What are the triggers for action and why? What policies determine these triggers? Can the policies be changed?
- Where are the hand-offs in the process? Do they need to exist? Can they be reduced?
- Who does what activity? Should they? Should fewer or more people be involved?
- Can work be sequenced or batched differently?

These are only some of the questions that could be examined. But answering all of these questions comes before looking at the actual activities of an individual processing a late account. Changing the process inevitably affects what people do or how often they do it, but keeping the analysis at a higher level is a better place to start.

OPPORTUNITY #48

DIDN'T WE ALREADY DO THIS?

In the previous Opportunity, we discussed the need to look at processes as a whole, before drilling down into the activities of individuals within the process. One of the benefits of analyzing organizations in this way is that you can occasionally catch something we refer to as "duplicated effort." Duplicated effort is when two (or more) people within an organization effectively do the same thing, but at different stages of a process or in different processes. This kind of wasted effort can go unnoticed for extended periods of time, particularly when the activities are in different functions.

One example that we see fairly often, in a wide variety of industries, revolves around forecasting. At one client site, we found as many as seven different forecasts being used by various departments to manage their staffing complements. There are often subtle and not-so-subtle reasons for the variance, usually related to how much one department trusts the

forecasts provided by another department. Sales, finance, production and procurement often view forecasts from a different vantage point. Here are a few more examples of where departments within organizations can duplicate effort:

- Capturing customer information
- Checking and cross-checking customer or supplier information
- Building management tools outside the company IT system
- Multiple handling, due to non-integrated IT systems
- Creating sales tools
- Multiple same-company entries in customer-relationship management (CRM) systems
- Marketing/selling to same customers
- Creating method changes for the same process across divisions
- Multiple meetings tackling the same issue
- Management reports that contain largely the same information

Taking a holistic approach to analyzing processes can help identify where duplication could be occurring. Some organizations try to implement knowledge- or best-practice libraries to try to minimize duplication. However, like most IT-based systems, libraries are only valuable if they are accessible, easy to use, and information is kept up to date.

OPPORTUNITY #49

MISMATCHED CAPACITIES

For many process-improvement advocates, the ideal work flow is something called "single" or "one-piece" flow, which means that work flows through a process in a continuous flow without any batch processing (or work-in-process inventory). It's a key concept underlying the Toyota Production System, reflecting a desire to build units in response to specific unit demand, as opposed to building larger quantities to feed into inventory and then waiting for demand. It's a hard system to implement, because it requires minimal process variation, rapid change over capability, and very high-quality equipment uptime. Many processes are more disconnected and move from function to function in batches. This disconnected flow can lead to something that we call "mismatched capacities," which can be another significant source of opportunities.

Performance loss occurs in these batch-and-queue environments when one operation in a process feeds work or information to another operation

at a rate that's either faster or slower than required to optimize throughput. If the rate is faster, the work backlogs and the operation become constraints. If the rate is too slow, then the operation suffers from downtime as it waits for the feed or slows its pace to match the feed. Even in relatively balanced process flows, high error rates at any stage of the process (due to new equipment or new people) can also cause this mismatch problem.

The trick to uncovering mismatched capacities is to split a larger process into appropriate sections, or subprocesses, and then determine the processing capacity of each subsection. Sometimes this is fairly obvious, and the sections can be identified by looking for material or information hand-offs. This doesn't always work however, as sometimes work is processed, filed or put away and then returned to by the same person or operation (e.g., there is no obvious "hand-off.") Capacity analysis can also be fairly complicated, especially if there are not dedicated work streams.

The effort to unravel capacity imbalances is worth it, however. Smoothing out work flows, even in batch environments, can significantly improve process productivity and reliability.

OPPORTUNITY #50

CAN YOU REALLY CHANGE PEOPLE?

If we are in the middle of a change project and we aren't achieving the results as planned in an area, we try to problem-solve why that is the case. One of the reasons may be that our project team can't get a manager to do something that he or she really needs to do. It may be that the manager doesn't want to communicate expectations in the morning and then have to follow up on staff throughout the day to make sure employees are on schedule. Or if the manager is reserved, he or she may not be comfortable with the possibility of a confrontation. Our team's role on a project is not to manage people but to be a resource. So we can't tell anyone what to do; we can only suggest and coach.

So how do you get people to change their daily behaviors? It's not difficult if you are showing someone a new technique that they want to learn. But what if the new technique requires a personal style that doesn't match who they are, and therefore they don't want to learn? If capturing opportunity

requires a change in someone's personal style, will it work and is it sustainable?

Our position is a little contradictory on this issue. Although we don't believe that you can change the nature of people (i.e., their personal style), we do believe that you can modify specific behaviors. Many human resource organizations offer some variation of management or behavior based coaching, which provide good insights on links between personal style and behavior. We've come to the conclusion that most of the personality categorizations are variations on a theme, and essentially there are a few basic types of people. There are people who are more or less assertive; people who are more or less outgoing; and there are various combinations of the two. People can modify how they act for periods of time (e.g., while on a sales call), but generally they will revert to their dominant style. In a work environment, it is this dominant style that is most familiar to employees.

You can't make someone assertive if it's not in their nature. You can coach them to be more assertive on occasion, but they will never be truly comfortable with it. You can, however, change certain specific behaviors and reframe the environment in order to accomplish the same objectives. You can teach anyone to communicate expectations and follow up, but the information has to be presented in a way that supports their style, not fights it. How they actually perform those tasks also needs to match their personal style; otherwise they will ignore the new preferred behavior. Whether or not the new behavior is truly sustainable depends on whether the behavior is ultimately of value to the manager in some way.

OPPORTUNITY #51

THE IMPORTANCE OF NOT BEING INNOVATIVE

This *Opportunities* series was written with the goal of sharing a few insights as to where a manager can improve performance in various parts of a business. What we haven't discussed so far is: How do you actually sell these changes to anyone? It's one thing to come up with a few clever ideas to improve a process; it's quite another to get anyone to support them.

The somewhat paradoxical key to selling ideas is not to come up with them yourself, but rather to engineer it so that others come up with them.

Many people naturally prefer the status quo, so introducing change is almost always difficult because it is inherently disruptive. It's quite common, on performance-improvement projects, to have a project team member get excited about an innovative method change and present it to the manager responsible for the area, only to have his idea quickly dismissed because it "couldn't be done" or because "it was tried before

and failed." If most people aren't crazy about change to begin with, you can be sure they really aren't crazy about changes that are thrust upon them by someone else.

The best chance for engineering support for identified opportunities is to encourage the people most directly impacted to come up with the idea or concept themselves. This can be done by patiently building a case for change while involving the impacted people, so that they make the necessary connections. Consultants and to a lesser degree internal performance-improvement teams sometimes feel the need to justify their presence (and expense), and so can be reluctant to allow others to take credit. This is almost always a mistake. Change ideas can be facilitated by a third party, but ultimately the impacted parties need to connect the dots and draw their own conclusions if they are ever to truly support the change.

Engineering change in this manner takes some time, patience and humility, but it's a key to sustainable improvement.

OPPORTUNITY #52

SCHEDULING: THE MOST COMMON OPPORTUNITY

An underlying theme in many of our articles about performance improvement is the importance of scheduling their resources. It's one of our organization's top maxims (See *52 Maxims*, Maxim #3: "Scheduling Is King"), and the key to sustaining improved performance levels. It's also arguably the most consistent place for finding opportunities, and so is a fitting topic for the last of this particular series.

Scheduling involves taking a forecast of products or services that you are expecting to sell or deliver and then translating it into the resources required to deliver on time. Even from that single sentence you can appreciate how scheduling can frequently go wrong. Forecasting demand is notoriously difficult in many industries, and maintaining or even creating up-to-date conversion tools (e.g., standards) is one of the single biggest weaknesses we see in all organizations, regardless of market or sector.

These two factors often result in organizations relying on buffers of equipment, people or time to enable them to properly react to customer demand. It's one of the reasons that large companies, particularly in made-to-order-type environments, can be vulnerable to small, nimble firms that focus on a narrow section of the market. Even though the smaller firms don't have the economies of scale to compete on cost, their focus allows them to reduce the time buffer needed by the larger firms, so they can differentiate on order delivery times.

You might think that the place to look for opportunities in scheduling would be to review the forecasting and planning parameters. They may well be the areas where most of the actual problems reside, but the easiest way to start to understand the issues is to find out what's happening at the point of execution – the point in time when things are made or services are delivered. If you observe the point of execution, you can observe how often schedules are changed and what information (or products or components) are missing or late, or are being substituted. Here you can also see where buffer inventories are required to maintain the flow. Working backwards from the point of execution you can unravel root causes of scheduling issues, which are usually related to these basic findings:

- Forecasts by product or service stream are inaccurate
- Forecasts are in dollars but are not translated into operating units
- Planning standards are obsolete or not trusted
- Customer change requests are not controlled
- Schedules are changed frequently and at the last minute, due to expedited priorities

Completely eliminating scheduling deficiencies is something of a Holy Grail. However, the best organizations we have worked with understand the critical importance of scheduling, and they maintain a never-ending focus on trying to improve this aspect of their operations. Finding opportunities in how you schedule leads to a better understanding of customer demand, order change management, resource productivity, service requirements, flexibility and inventory management.

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ABOUT CARPEDIA INTERNATIONAL

Carpedia was founded in 1994 and has operated under the mantra of "Results Not Reports" since its inception. The firm was built around the simple premise that it was more interesting to help companies actually improve their results than it was to simply recommend ideas in a thick report. Company managers have no shortage of good ideas or ways to improve their performance. Actually communicating those ideas throughout the organization, getting people to work across functions, physically changing processes and systems, and modifying the skills and behaviors of people is time-consuming and difficult. This is exactly where Carpedia helps.

This commitment to rolling up our sleeves and working shoulder-to-shoulder with local managers to improve performance has defined the company's approach and culture. Carpedia is full of hard working, dedicated people who enjoy working with all levels of management and staff to make positive improvements happen quickly, effectively and measurably.

The company works in many industries including financial services, healthcare, manufacturing, logistics, hospitality and technology. Carpedia has worked with many world-class organizations including H.J. Heinz, Marriott International, Yale-New Haven Health, Blackstone and Constellation Brands.

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