

BY JENNIFER DANESHGARI & DR. HEATHER MOORE

# KEEPING AN EYE ON THE MONEY:

## *Streamlining Data & Departments*



Who has a hand in your company's financials? Do you know where the money goes? Even though accounting departments are not revenue-generating, their work can be done more effectively with increased visibility and processes that are designed to streamline the flow of data and information among the field, office, and project management.

Rather than looking in the rearview mirror to identify what has happened in the past, this article introduces a means of increasing company-wide visibility to improve the future by allowing more time to detect anomalies, recognizing explicit processes and procedures, and understanding where time is spent and if it's transferring value to the customer before moving to IT solutions.

### REVIEW PROCESSES TO PREVENT RISKS

It's important to frequently evaluate “what you do” vs. “what you *should* do” to help prevent future risk. Consider companies that require two signatures before sending checks to prevent any one person from signing an unauthorized check. While this process has been in place for years, electronic banking has changed how companies transact payments via automated clearing house (ACH) — two “signatures” are no longer needed for approval. So, how do the two signatures make sense when electronic payments are more common in the same company?

In one recent example, vendors were emailing invoices to a contractor that was assigned to a job-specific purchase order (PO), which was not tied to an ending dollar amount or bill of materials. This PO was increased unilaterally by the accounts payable person, who was also responsible for reviewing the monthly invoices, reconciling the statement, and then paying the vendor online — without any additional checks or balances. Often, the approval step



was time-crunched and occurred later in the process, so pressure to pay timely trumped ensuring the correct payments were being made.

The situation came to light when the project manager (PM) noticed that there was a double payment for fixtures during a review of material cost overages after the job ended. An evaluation of processes revealed that this gap needed to be corrected.

Exhibit 1 shows the key premise in Agile Construction® where increasing the speed of detection allows the organization or function more time to correct.<sup>1</sup> Waiting until the check is written — or the moment when electronic payment must be made — is too late in the process and doesn't allow for time to correct issues found in the payables process. Moving reviews closer to the time of spend/commitment helps detect errors quickly and provides sufficient time to adjust invoicing errors.

This company used a deployment flowchart to investigate its internal process. The steps of the process were written down, the roles of who performed those steps were documented, and, most important, “swim lanes” were used to evaluate the workflow and information in the current process (Exhibit 2). By using these lanes to evaluate the workflow within the initial deployment flowchart, the team could quickly see that the approval of the invoices was happening too late in the process.

As a result, a weekly check of material spend on the job was implemented as well as approval by the PM *before* the invoice was added as input against the PO (Exhibit 3).

### THE EVOLUTION OF AN ORGANIZATION

When making process changes, the issues must be approached systematically with categorization and review of impact and risk rather than simply adding steps to fix issues discovered along the way. Without a systematic approach, you may create a very long checklist that only prevents past mistakes from reoccurring but does not forecast future issues. Reviewing the process when there are new personnel or roles added will help reveal where role splits were made and what information may be lost.

Work that might have been done with three people when a company was smaller may involve six or more people if the volume of work increases. The process may no longer be optimized for its intent and must be redesigned.

Dr. Perry Daneshgari of MCA, Inc. developed a model for the evolution of an organization, which explains what happens as a business grows and changes (Exhibit 4). To best understand this business model, start at the base of the pyramid.

#### Level 1: People

Most companies' initial strength and philosophy of operations starts with the people and consists of the founders, owners, and those involved at the start of the business.

#### Level 2: Process

Those individuals grow the business by “doing what they do best,” which builds tacit knowledge and eventually becomes the process or “the way work gets done.” However, this doesn't necessarily mean that the processes are explicit, repeatable, scalable, or optimized.

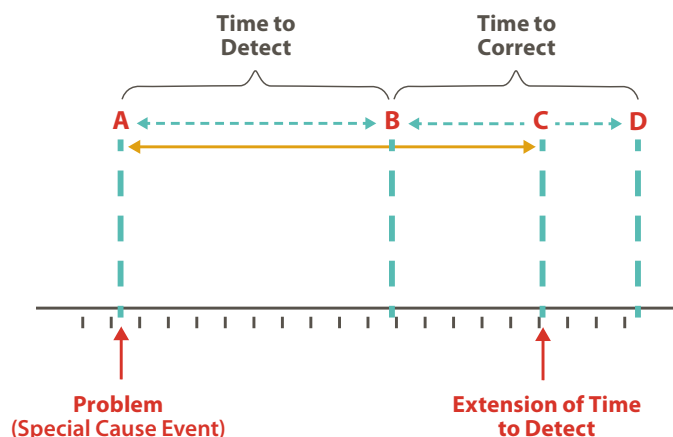
#### Level 3: Procedures

Next, translate the tacit processes into explicit procedures such as checklists, forms, templates, etc. These consistent and explicit forms inherently improve the quality of the process outcomes, which develops the company's infrastructure.

#### Level 4: IT

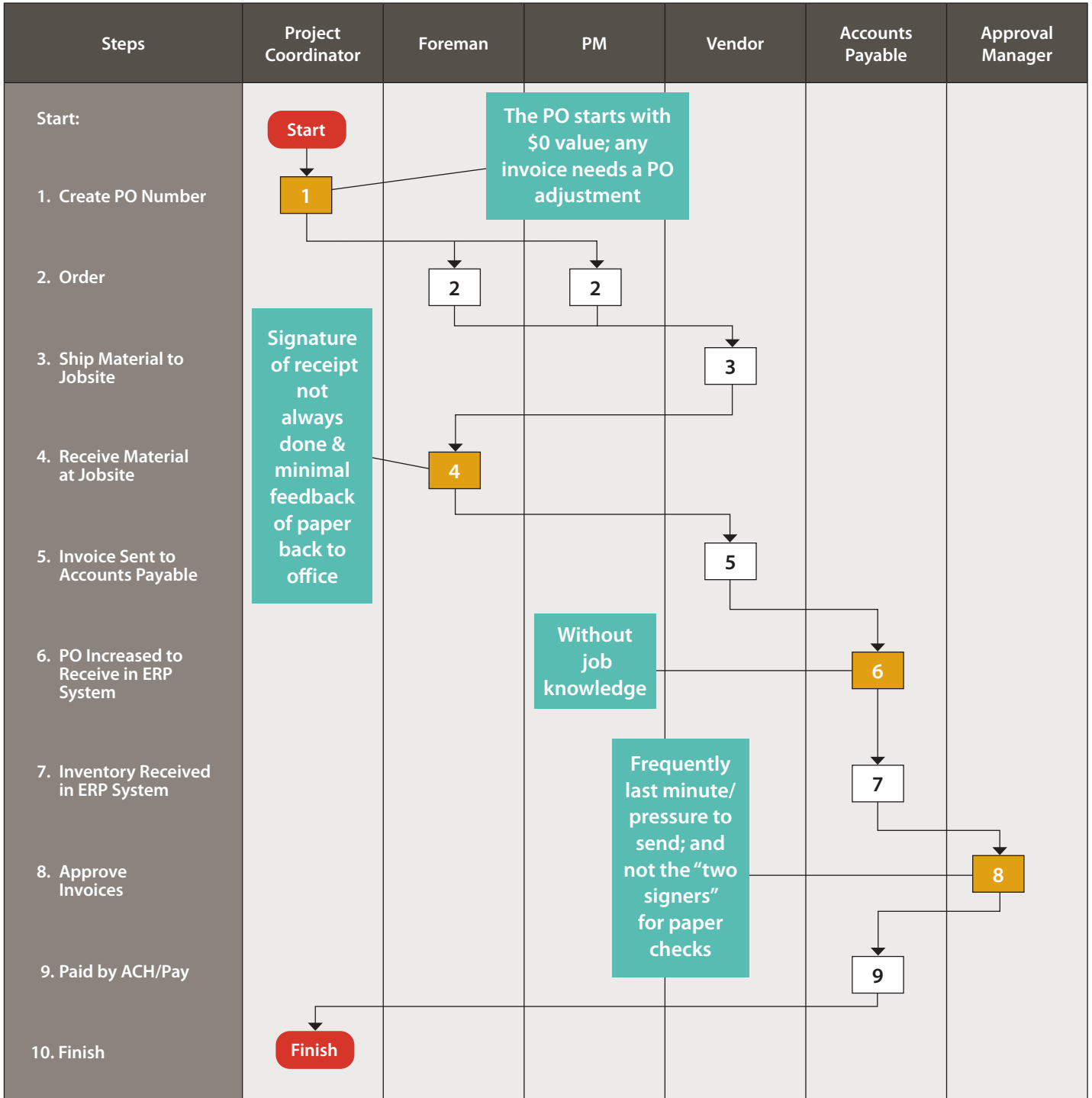
With specific and explicit procedures to follow, an organization should choose an IT solution that matches those procedures to automate and embed into the company-wide information flow (e.g., timesheet tracking, accounting/enterprise resource planning, expense reporting). Too often companies rush to select an IT solution and then may be forced to match their company processes and procedures to the tool instead.

Exhibit 1: Components of Response Time



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## Exhibit 2: Initial Accounts Payable Process





## Streamlining Data & Departments

Accounting processes are often decided on by one person or department, but without any supporting processes or procedures, they fail in implementation or don't match the same results that individuals were seeing with tacit knowledge.

If the organization is functioning in the procedures and IT portions of Exhibit 4, then they may not understand the philosophy of operation intended by the company. There could be many reasons for this, but it's likely attributed to company growth or the departure (e.g., changed roles or left the company) of key personnel who developed those processes. It's important to reflect on and analyze your company's current state at some frequency as well as evaluate the procedures and IT to ensure they are still linked to the intended business operational model.

### ANALYZING THE FLOW OF MONEY

When looking at the flow of money, it may not be about increasing controls, per se, but rather about putting the right controls in place, using available tools, and following the processes. It is important to ask:

- Where is the money coming from? Is there a deployment flowchart of the cash flows through the company?
- Are contract reviews with the field thorough enough to ensure everyone knows the scope of work on the project and material specifications?
- What processes support the team in properly billing and collecting the money due to the company (from labor to materials to billing for work completed)? Are you using ASTM International's Job Productivity Measurement (ASTM E2691-20)?<sup>2</sup>
- Who is approving materials purchased (e.g., skilled trades, supervision, project management)? Does the material being purchased match the plan in the estimate or from the field?
- Who is deciding the labor plan and labor on the job? Are laborers working at the correct time and being pulled off the job when the work slows down or has gaps?
- Who is helping the labor to maximize productivity?

### IMPROVING VISIBILITY TO RECOGNIZE WASTE

Recognizing waste in both the company and accounting processes are key, but it's difficult to get visibility when you're not there and the team is used to making those decisions on their own. Just like in the field, the accounting department is dealing with chronic issues that can be understood if data regarding the obstacles to their daily work is gathered. Once

you start reviewing the issues, the instinct is to solve them all, which does not always yield the best results for the company. It's critical to codify and categorize information and analyze the data using the Pareto principle before acting on it.

How do you know your company is staffed correctly? As you grow, do you know what your processes/staff can support? Be sure to ask the following questions:

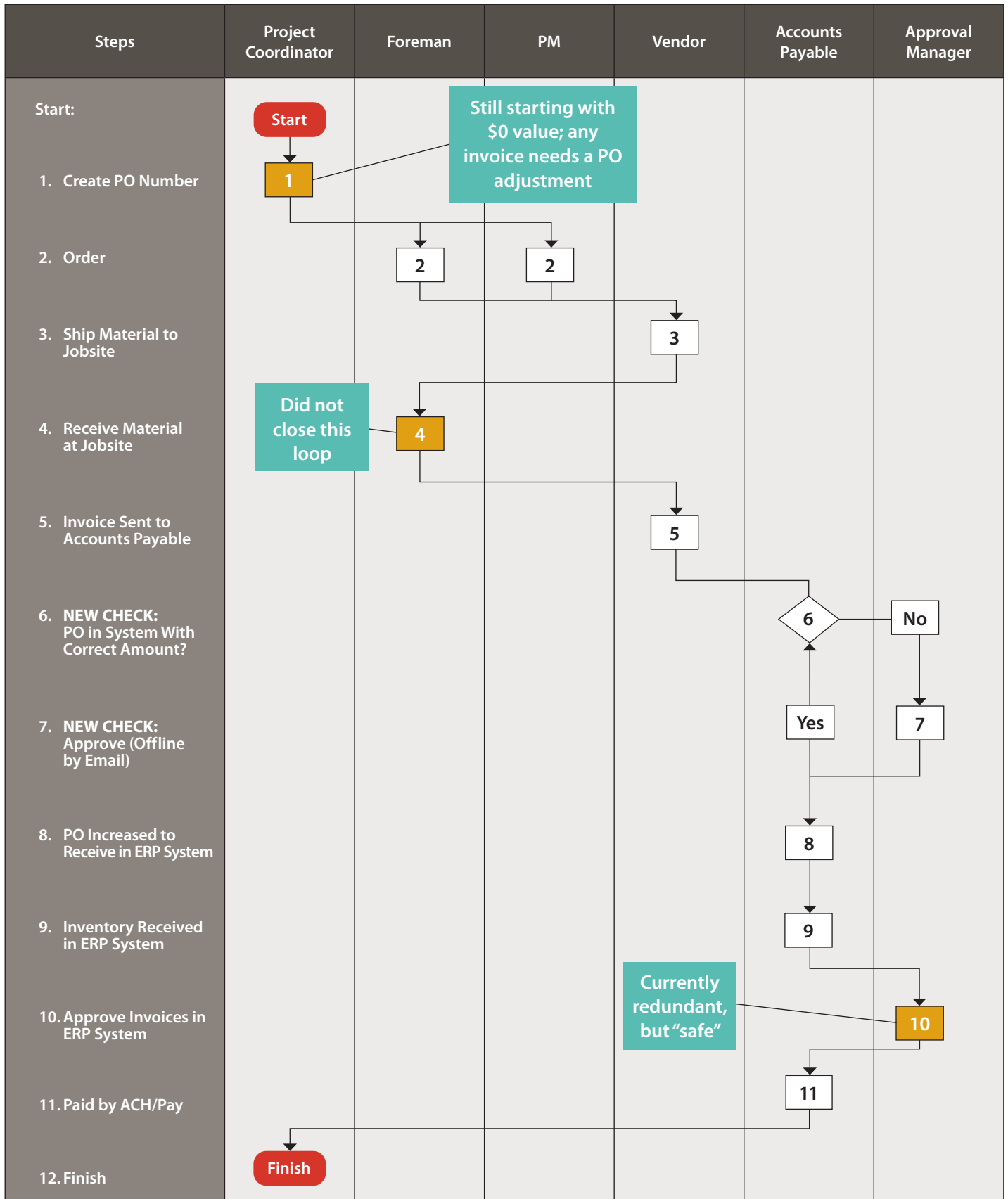
- How much time is spent correcting payroll? How can the accounting or office team help with processes to support the field's input of their time?
- How much time is spent on calls with vendors or the field about material orders? How can the accounting, office, or procurement team support the field in managing procurement?
- How can the accounting team support the field leads to process their billing so it's turned in on time?
- Is there a way the accounting or office team can get information from vendors on what's been ordered, delivered, and on back order to help ensure faster invoice approval and timely payment?
- How much time is spent reconciling the payments to be made due to chasing invoices with errors?

One way to see the daily issues that your team faces is by gathering information through Short Interval Scheduling (SIS<sup>®</sup>). SIS<sup>®</sup> can help the field and office create visibility to obstacles for your team over time and then root cause and remove the obstacles for the future. Each team member should break down their daily work into specific tasks that they schedule to complete that day. Then, at the end of the day, they should note if they were able to complete those tasks; if not, note what prevented them from being completed. Ideally, a brief daily team meeting is held each morning to review and record obstacles from the day before and discuss schedules for the current day.

Beginning in 2004, MCA, Inc. conducted a multi-year nationwide survey focused on obstacles in the field and on the jobsite.<sup>3</sup> With the use of categorization and the Pareto principle, Exhibit 5 shows the top challenges with completing scheduled work. This process is now part of ASTM-E2691 and used on jobsites across the country for identifying common causes of productivity impacts.

The SIS<sup>®</sup> process has also been valuable for office teams, such as accounting departments. The example in Exhibit 6 shows nine effective years of scheduled work that was left unfinished due to various obstacles.

### Exhibit 3: Modified Accounts Payable Process

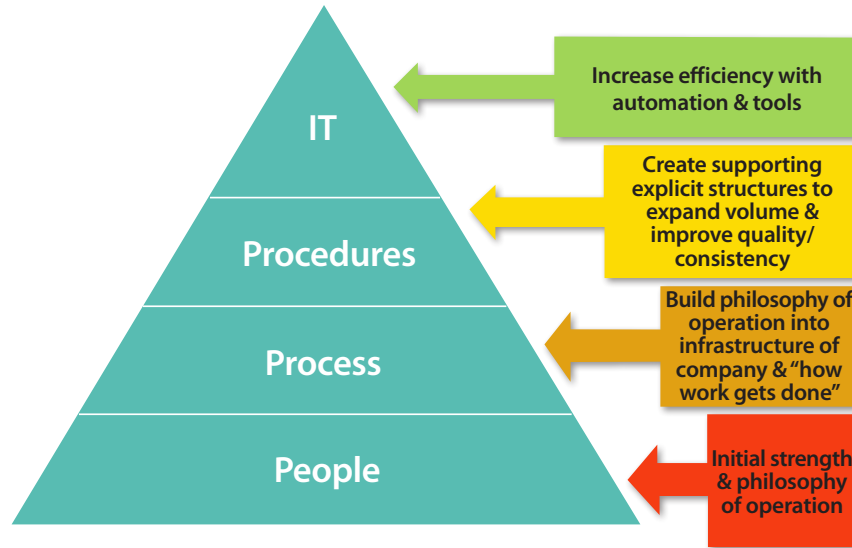


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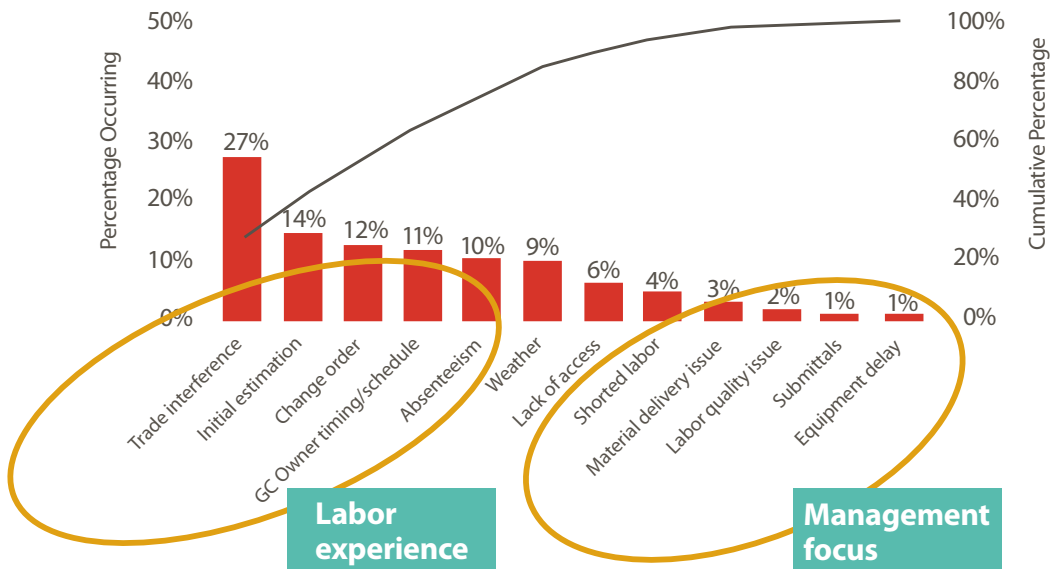
Exhibit 4: Evolution of an Organization



Understanding the **ENTIRE COMPANY'S VALUE CHAIN IS...CRITICAL.**

While it may be tempting to streamline within a department,  
**STREAMLINING THE ENTIRE COMPANY IS THE GOAL.**

Exhibit 5: Example of Root Cause Analysis



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The top three obstacles were:

- 1) Changes in the office that day
- 2) Issues with invoices from the vendors
- 3) Coordination issues with others in the company (primarily PMs in an effort to get bills out, corrected, or collected)

This Pareto chart was reviewed by the company's CFO and led to a redesign of both the billing and invoicing processes to reduce obstacles in the accounting department. More importantly, it helped improve the company's overall cash flow.

It is key to be able to aggregate the data long term, categorize it by using the Pareto principle, and act on it. The obstacles your team faces will most often become visible, and this information can be used to improve team processes and educate employees on how to prevent these issues from happening in the future. Understanding the entire company's value chain is also critical. While it may be tempting to streamline within a department, streamlining the entire *company* is the goal.

## NEXT STEPS & CONCLUSION

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Looking forward, knowing where key decisions are being made, who is making them, and if support is needed to make them correctly is key.

Recognizing that looking in the rearview mirror when it comes to accounting and finance is not sufficient for today's increasingly industrialized construction companies. Some areas of focus include:

- Increase the time to detect so that you have more time to correct
- Know where decisions are made in your business
- Recognize if your organization has explicit processes and procedures before moving to IT solutions
- Codify and categorize obstacles for your department and company to understand which items create the most impact
- Recognize where time is being spent and acknowledge if it's transferring value to the customer

Focusing on these items will allow you to manage with data, know whose actions and decisions are controlling the cash flow in your company, and make changes to the bottom line before the next financial reports come out to the team. ■

## Endnotes

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1. Daneshgari, Dr. Perry. *Agile Construction® for the Electrical Contractor (Second Edition)*. MCA, Inc. 2020.
2. Daneshgari, Dr. Perry & Moore, Dr. Heather. "New Productivity Measurement Standard Affects Revenue Recognition." *CFMA Building Profits*. March/April 2012. [www.cfmaponline.net/cfmabp/20120304?pg=26](http://www.cfmaponline.net/cfmabp/20120304?pg=26).
3. Daneshgari, Dr. Perry & Moore, Dr. Heather. "Top 10 Reasons Causing Nonproductive Activities." MCA, Inc. 2004.

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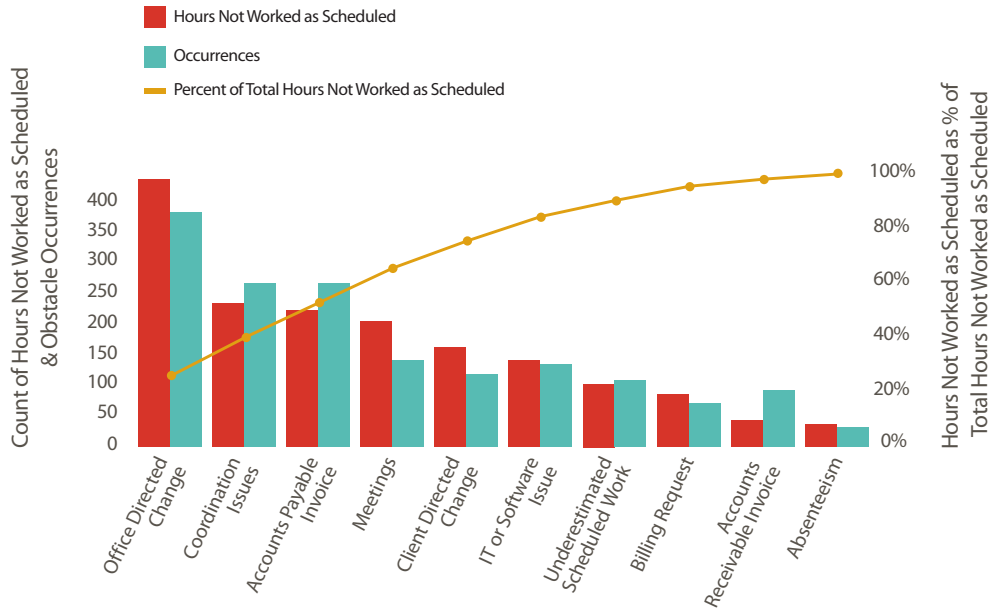
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**Exhibit 6: SIS® Pareto Chart:  
All Dates for Accounting — All Jobs — 18 Selected**



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