Chapter 1

Move the Machine Six Inches

"Listen to the machine operator and move the machine six inches," my mentor, Bill Moffitt, who was coaching me in a team improvement workshop, advised me.

My colleagues and I were gathered on the factory floor of the Crouse-Hinds Company on a Monday morning in Syracuse, New York. Crouse-Hinds (then a part of Cooper Industries, now a subsidiary of Eaton Corporation) is a leading manufacturer of electrical equipment, specializing in products designed to withstand hazardous and harsh conditions.

The stakes are high when manufacturing this type of equipment. When a worker is doing electrical installation on an offshore drilling rig in the Gulf of Mexico, for example, an explosion-proof electrical enclosure can mean the difference between a straightforward day on the job and a catastrophic explosion.

On this cold and snowy Syracuse day in 1993, we were gathered to conduct a team improvement workshop. Based on lessons learned by our mentor from Toyota, this workshop was the first of its kind at Cooper Industries. The team consisted of production workers, union officials, supervisors, and management. It is fair to say that everyone in attendance was apprehensive. The members of the team represented a diverse array of disparate—or even competing—interests and agendas.

The goal of that 1993 event was to create *flow*. Flow is a term that describes any work in process that moves forward without pausing and each piece is completed individually rather than in a batch. Prior to this event, the manufacturing equipment on the factory floor was divided into distinct functional departments. The divisions between the functional departments had prevented work from flowing between stations without conveyance or other delays.

During this workshop, the team brought all the workers together to create a unit called a *cell*. This reconfigured way of working reduced lead times by shortening the distance the parts had to travel, as well as reducing the amount of time the parts spent “sitting around.”

The potential benefits of the new cell were significant. By eliminating the siloed functional departments and creating cells, we enabled faster delivery, immediate identification of quality issues, lower cost from less handling, and less inventory.

Making these changes produced human and organizational benefits that extended far beyond the immediate logistic—and even financial—advantages created by moving equipment. Culturally, we were making it clear in the moment that we were serious about change—and that every person involved was empowered to be change agents. Workshops have a bias for action, meaning there is little to no delay between decision-making, planning, and implementation. When we made the decision to create the cells, we got them up and running in the same week.

Implementing the new structure was simple but not easy. Moving multi-ton manufacturing equipment to create cells is an intensive process. Due to the size and weight of the equipment, we needed to bring in an outside contractor—a "rigger"—to make the move. Demonstrating our bias for action, we hired the rigger and moved the equipment on the third day of the weeklong workshop. Improvements that can be made in real time often yield the best outcomes.

By the end of the third day, the rigger had repositioned the machines. When we came in the morning after we moved the equipment and asked the machine operators for their feedback on the new layout, one worker said, "If this machine was turned six inches, I wouldn't have to walk an extra step. I could just turn and reach."

My initial thought was about the expenditure needed to rehire the rigger to move the machine a scant six inches, adding time and cost to the process. And yet my coach, Bill Moffitt, said something that permanently opened my eyes. He looked at me and said, "Listen to the operator. Move the equipment six inches." I trusted Bill to do so, and so we reluctantly brought the riggers back and repositioned the equipment.

And this operator eventually said, "My gosh, they actually listened to me and did what was best!" His conviction made my job easier moving forward. While the union was initially suspicious of what we were doing, that simple act got the ball rolling in terms of building trust and mutual respect. Change driven by the people who do the work proved to be more successful than the traditional "top-down" manufacturing management approach. We got to the point where the union started suggesting areas of improvement and volunteering to participate in workshops.

In that instant, Bill Moffitt helped me understand the enduring value of listening to the people who are doing the work and acting on it swiftly. I truly do not know where my career would be today if we hadn't moved that piece of equipment six inches and made that operator's job a little better, while simultaneously making delivery to the customer a little faster.

By immediately acting—agreeing simply to move the equipment in that moment—we sent a key message not just in the moment, but for the long term, responding to and validating what this operator shared based on his years of experience.

That was the start of my continuous improvement journey. That event laid the seeds for the convictions that have guided me for decades. At that moment, on the factory floor, we saw what was going on, listened to the operator, and made improvements.

This simple interaction marked the start of the continuous improvement journey at Crouse-Hinds. We earned buy-in from the operators almost immediately. Notably, the operator who suggested moving the equipment six inches was a union steward. He saw that the continuous improvement team observed the work being done, sought his input, and took his feedback seriously. He then told his colleagues in the union to give it a try. There was little written at the time about this improvement process, and he put his trust in us based on our actions.

Over the coming months and years, we would radically transform how this producer of electrical construction materials organized the way they made their products, in a way that would serve their customers far more powerfully and productively than they had before. We eliminated their archaic method of breaking work down into functional departments (like machining, wash, assembly, warehousing, and more), and created eight business units that were organized by value stream instead. Now each business unit incorporates everything needed to get a product to a customer—including administrative functions such as engineering, purchasing, and accounting—that were previously siloed. Doing so allowed us to produce items in a state of flow where work traveled seamlessly from raw materials to a finished product.

This huge change delivered benefits far beyond the cost savings from having pieces in process sitting around waiting to be passed to the next step. We reduced the many costs associated with waiting, overproduction of parts, overprocessing of materials, excessive inventory, and more. We would now have positive pressure on fixing problems as they occurred. In addition, implementing flow produced enormous gains in on-time delivery and quality, because, as quality issues emerged, workers would discover and immediately resolve the source of the defect then and there.

From such small gains we cumulatively garnered significant achievements. Over time, we reduced inventory levels by 50 percent, reduced operating costs by 15 percent, reduced defects by 80 percent, and set new records for customer service with an on-time delivery mark of 100 percent. Filtering out all the excessive inventory, work, and capital from how we made things, coupled with greater customer satisfaction, improved cash flow for the business by more than $30 million.

That moment represented more than the start of the journey of continuous improvement for Crouse-Hinds. That workshop and all the beliefs embedded in it (whether known or simply suggested at the time) generated foundational ideas that have informed my entire career. That was the first time I deeply understood the importance of *being present, seeing the work being done, and listening to the people doing the work*.

Sure, we reaped the expected operational benefits, and the cell ended up reducing lead times by several weeks by producing parts in one-piece flow versus moving large batches between different departments. Our customers were delighted by our ability to serve them faster and more flexibly. But more than that, I discovered enduring and repeatable cultural lessons that have guided me and my colleagues over a range of successful turnarounds and breakthrough transformations.

Over the last 30 years I have led or participated in more than 1,000 workshops through my work as an executive, an investor, or a consultant with Moffitt, helping implement a better way. I've seen this approach improve the work in hospitals and mattress retailers, in temporary medical staffing firms and laboratory animal science companies. I've seen it boost the quality, on-time delivery, service, and cost structure of companies that make everything from men's suits to steel doors to rocket fuel to drywall. I've seen this apply in every type of company and firm; I know that it works as effectively at a global manufacturing company as it does in a small museum, zoo, governmental agency, or nonprofit. I don't know where my career would be today if it wasn't for moving that piece of equipment six inches.

My colleagues and I call this approach a "holistic business system," and I'm a firm believer that following this way of creating value represents a better way for companies to succeed today.

In recent years, companies have increasingly turned to short-term opportunistic strategies based on leveraging capital, bullying customers, and exploiting technical advantage for growth. This prevalent approach seeks ways to extract value quickly from companies and organizations by selling assets and holding customers captive. This approach represents a way of business that disrespects employees and customers, delivers a limited product or service to customers, and proves itself unsustainable over time.

We see this in the triumph of some private equity firms that profit from framing companies as static agglomerations of assets to be purchased and then sold piecemeal, with no vision of the greater whole. Debt is a neutral tool employed to maximize transactional values, and little care is paid to the long-term viability and health of the enterprise. All the profit is generated by the deal, and none of it is contingent on boosting the long-term health—and profit—of the venture. This impatient, transactional, short-term process does little to nothing to increase the health and vitality of healthy businesses and operates largely as a massive transfer of wealth into a small, concentrated set of financiers.

Employees in this way of doing business are seen as expenses to be cut, impersonal costs that are fungible and expendable. Loyalty and expertise are rarely valued. The value of learning and growth is profoundly discounted.

Through my work helping more than 50 companies and organizations transform I've learned that a better way is possible. Many companies (and nonprofit organizations) today are poised to achieve their strategic objectives and experience healthy growth by providing exceptional products or services, and doing so in an enduring and inclusive way that creates value for employees, customers, stakeholders, and society at large.

This approach applies equally to retail and service businesses as it does to small manufacturers making basement doors and, of course, to large multinational corporations. I've learned this through my work with many such organizations over the past three decades, helping them improve the quality of their earnings while preserving and generating stable work for loyal employees year after year. Such quiet, consistent performers churn out profits and generate good jobs for loyal employees year after year.

Internally, my peers and I have codified these principles as a "holistic business system," a comprehensive business system of continuous improvement that serves people, employees, and organizations. This approach has created billions in value for all involved by dramatically eliminating the waste that can be found in existing organizations. This system unlocks value by empowering the people who do the work to improve the work, and it taps into a more focused and productive organization to deliver superior value to customers in a way that improves consistently over time.

THE BUILDING BLOCKS OF CREATING VALUE

A handful of core values animates this framework: fundamentals such as being present, seeing the work being done (at the workplace itself), showing respect by listening to the people doing the work, acknowledging their contributions, and valuing their opinions. These building blocks support and reinforce each other in a dynamic system where value compounds over time.

This approach runs contrary to many accepted truths about how to compete in today's economy, including a firm commitment to respecting the input of those who do the work, focusing relentlessly on creating and delivering more value to customers over time, and achieving success through consistent internal improvement, rather than gaming the system or gambling recklessly with capital. This business system is the result of my lifelong journey with business transformations and continuous improvement.

This hands-on business system has a bias for action in the service of eliminating waste—to serve and deliver eternally growing value to customers. And while improving the processes by which organizations deliver value to customers naturally reduces cost, the primary benefits are that it creates the best possible quality, delivery, and service to create value for employees, customers, stakeholders, and society. And it has paid off for us consistently in myriad companies in a wide range of industries over time, resulting in billions of dollars in value creation. Applying these insights will enable you to unleash dramatic value by empowering your people in any company, anywhere.

I do not profess to be an expert in Lean, Six Sigma, Toyota Production System, Danaher, or Wiremold. However, I have learned greatly from each of them. I have been fortunate to have great teachers and mentors, including Chihiro Nakao, Art Bryne, Yoshiki Iwata, Bill Moffitt, Bob Pentland, and Jim Cutler. However, the best teacher of all has been the workplace itself and the people who do the work. All the stories, experiences, and lessons in this book contribute to this model.

This business system is not the Toyota Production System or Lean. It is a collection of what I have learned over many years from many teachers, businesses, and organizations. It's about developing people. It's about observing, listening, and making improvements. It's about eliminating waste to optimize quality, delivery, service, and cost structure. The system is hands-on with a bias for action. It is not a cost-reduction project, although process improvement process may result in cost reduction. It is about having the best possible quality, delivery, and service to create value for employees, customers, stakeholders, and society. It is applicable to any industry or organization. I have been involved with many transformations, and without the whole system, I have never seen breakthrough transformation and real value creation.

THE LEGACY OF QUALITY

In all these organizations, we have seen irrefutable proof that *quality is the engine of growth*. And that internal, built-in excellence eventually manifests as superior performance in the marketplace. Enduring success is not about gaming the system; it's about becoming world-class to play the game successfully. Superior processes inevitably produce superior results in every company and organization.

These building blocks have roots in a system of production, which was named by a team of researchers from MIT after years of study into the Toyota Production System (TPS). These researchers, including authors Jim Womack and Dan Jones, identified the dynamics of the approach that allowed Toyota to produce cars far more cheaply, faster, and simultaneously with higher quality (measured by far fewer defects) than its global competitors—and which over decades enabled the company to be the global leader in the number of vehicles produced. Since the research team shared this approach, organizations throughout the world have adopted some form of quality informed by the Toyota Production System, as a means of eliminating waste, boosting quality, and spreading a structured approach to problem-solving and learning.

Continuous improvement today is often seen as a "buzzy" phrase associated with cost-cutting and Japanese management. Many excellent books, like Jeff Liker's *The Toyota Way* and Jim Womack and Dan Jones's *Lean Thinking*, have shared the core ideas in a powerful and actionable manner. And many large companies have embarked on a path with varying degrees of success and commitment. GE under Larry Culp represents a fascinating case of a global leader practicing this extensively at every corner of the organization.

Despite this progress, continuous improvement today has suffered from its success. Leading experts spend too much time feuding over whose trademarked approach has the most "authentic" lineage to Japanese sensei, while consultancies invest deeply in producing thin-sliced intellectual products as a means of luring potential clients. Most books about continuous improvement and quality focus narrowly on producing better process numbers while losing sight of vital context, such as consistently boosting quality, delivery, and service while serving loyal employees and customers.

Part of the problem is that the core practices should be easy to follow, and yet they are rarely followed consistently today. The key practices run counter to the prevailing business mindset that taps impatient capital, exploits workers, thinks only in the short term, and sees strategy as a tactical pursuit of temporary monopolies and captive customers. Finally, it has all too often been presented as an end, a noble quest to attain perfection without clear business outcomes. This book intends to clearly establish a link between outstanding process excellence and enduring success in the marketplace.

Creating Value reveals how pursuing excellence leads to outstanding business results that accrue and endure over years. It will help business leaders dramatically boost employee participation and agency, while steadily increasing profits and boosting enterprise value, leading to widely shared creation of value.

Creating Value shares compelling proof that this approach creates unlimited value in virtually any organization imaginable. I define value as what is important to the recipient. While this may vary by individual, I have found these to be of highest importance and fall into three categories:

What's important to the ***customer***?

- Quality
- On-time delivery of a product or service
- Reasonable cost

What's important to ***employees***?

- Clear expectations and responsibilities/standard work
- Training and resources necessary to be successful
- Safe and decent work environment
- Fair compensation

What's important to ***stakeholders***?

- Provide exceptional products or services
- Financially effective

If we improve people lives with exceptional products, services, and jobs, *society* is served. And how do we create what is important to customers, employees, and stakeholders? We utilize a version of this holistic business system.

This book is set apart by the depth and variety of authentic stories about improvement activities—real-world examples of people doing the work and making improvements. You will learn about creating value not from generic descriptions or mundane history lessons but from actual workshops, the way I did.

Above all, this approach taps the power of a holistic business system. You will learn how companies adopted a comprehensive management approach focused on continuous improvement and operational excellence, one that offers a dynamic way to engage every employee in delivering more value to the customer. You will understand how this approach strategically targets waste reduction through value stream analysis, daily improvement efforts, and workshop teams, implementing fundamental principles while ensuring workplace organization and accountability.

You will also learn the primary importance of empowering people. The system promotes and fosters a culture where improvement emerges from the insights of the employees doing the work. This begins with a clear mandate to respect the safety of our workers above all, but extends far beyond the notion that the input of each individual matters deeply—that the people doing the work are best positioned to make suggestions about how to improve the work.

We will see how this principle played out when working with an Asian company that was one of the world's largest producers of pulp and paper, as well as across industries, from manufacturing to healthcare, from technology to property management.

Adopting this proactive approach means focusing on quality, delivery, and service—and not on cutting costs. Trust that the best way to secure superior outcomes—including profits—is to gain mastery over the way you achieve them.

This book also shares a fundamental discovery about the way to create value: prioritize learning as the fundamental source of continuous improvement. All of our methods and practices are designed to generate *operational* learning—lessons and improvements derived from disciplined approaches to uncovering and resolving performance gaps. Beyond the tangible gains realized by the power of our approach, the most dynamic advantages accrue from our ever-growing capabilities.

This allows us to appreciate the compounding power of improvement. When practiced faithfully, the individual components of value boost each other in a mutually reinforcing dynamic. Producing products as needed and in flow surfaces defects quicker and increases the pressure to resolve problems immediately, at the source, which over time builds the problem-solving capability of team members. We will see how this played out at a family-owned company that makes basement doors and roof hatches.

Doing this work patiently and diligently reveals yet another key principle uniting all these ideas: that perfecting your processes is the key to superior growth. The most dramatic improvements are made from a rigorous, clear-eyed scrutiny of the actual work being done—not a disembodied discussion of it, nor an elaborate PowerPoint presentation. Enduring success results from a strong conviction in improving from the inside out. Benefits result from delivering superior value consistently, and not from seeking monopolies, holding customers captive, nor recklessly tinkering with financial engineering. The key to vitality stems from simply learning to deliver more value—and to do so by always being present at the workplace, respecting the people, and deeply understanding the work being done.

And finally, we will see how this comprehensive system for creating value works *everywhere*. Such an approach has paid off for us consistently in countless industries across the world. You do not have to follow the precise paths that we have taken to create value. But if you do create—and follow—a systematic approach to creating value that respects the people and the work being done, you will enjoy remarkable benefits that compound over time.

Creating Value will present a wide range of rich, granular company stories that illustrate the lessons vividly, tapping individual stories in a format that highlights the lessons. This book shares how relentlessly improving quality, delivery, service, and cost structure at a producer of material handling products created benefits whose gains compounded exponentially. It reveals how developing a complete system of removing waste and ensuring quality at a wiring device manufacturer required humble management and constant vigilance. How work at an electrical construction materials producer was fostered by respecting and listening to the frontline workers. And how a turnaround at a producer of industrial HVAC equipment demonstrated the value of creating quality in real time, when goods were made rather than by inspection long afterward. The book shares details from many other turnarounds and organization transformations, including a leading mattress retailer, a multinational insurance company, a property management organization, a pulp and paper maker, and a small regional hospital. This diverse selection helps codify the common principles that apply to any organization.

Let's start by going into the components of the business system in detail.