



OPERATIONAL EXCELLENCE

Operational excellence is the next generation of lean because the transformation is built into the process design; lean foundations work as intended while providing quick results, positive reinforcement, and a culture of continuous improvement.

FOR THE COST ACCOUNTANT

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In the classic movie “The Wizard of Oz,” when Dorothy wakes up after getting caught in a twister, she says to her dog, “Totó, I have a feeling we’re not in Kansas anymore.” This sentiment perfectly applies to those undergoing lean transformation. Just like Dorothy, employees and organizations transitioning to lean go through many challenging physical and mental changes. Many studies provide data in support of this claim, with lean program failure rates of 50 to 95 percent.¹ In a study of 1,100 companies in 2011, most companies had implemented lean (71.6 percent) and Six Sigma (58.2 percent), but only 2 percent found that lean initiatives resulted in clear financial improvement.² There are many reasons for this failure rate including the lack of a standardized board of metrics, dependence on one individual, and the slow nature of improvement. To eliminate this

uncertainty, operational excellence provides a direct path for organizations to produce quick results, easy-to-understand performance metrics, process-based implementation, and the direction in which to grow their business.

Many lean transformations fail after a certain period of time because they lack sustainable leadership and momentum. This is due to the unfocused nature of many lean implementations. Conversely, operational excellence provides a clear focus for everyday tasks through the use of performance metrics. The emphasis on process eliminates any reliance on one or a few people to champion the project after its installation in order to develop lean. Additionally, quick, sustained results provide continual positive reinforcement to support the lean journey as it becomes part of the organization’s competitive advantage and strategy. Thus, operational excellence becomes the next evolution

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of lean after foundational lean training and understanding.

This article provides the clarity needed for organizations to implement lean and creates a path toward quick results, sustained competitive advantage, and business growth. We first define operational excellence, then outline its flow and identify the steps for its implementation, and lastly, provide an example of implementation. Cost accountants play a critical role in lean transformation because they deal with many processes for operational excellence. These cycles include revenue, payment, fixed asset, month-end, and audit, just to name a few. Providing a guaranteed turnaround time for results improves the quality of service to the customer, and the reduced cost translates into additional business or growth opportunities. Therefore, having either external or internal customers doesn't matter as long as we eliminate waste, improve the speed and quality of service, and lower the cost — all of which result in opportunities for growth.

Operational excellence defined

Operational excellence is defined as the point when each and every employee can see the flow of value to the customer and fix that flow before it breaks down.³ This is performed without any management intervention. The focus for operational excellence is to follow the right process using the right procedures. By following the process, anyone — from the top executive to an entry-level employee — can achieve operational excellence, in any environment, and make it work. It is important that every employee can see the flow to the customer and fix that flow before it breaks down without involving management. Due to its process nature, operational excellence can be easily taught and quickly applied throughout the entire organization, thereby producing quick results. This eliminates any variation in the process and improves the overall quality of the service. The organization can then create value streams that flow at the rate of customer demand,

and every employee in the organization can physically see that flow.

Operational excellence goes beyond the elimination of waste and the implementation of efficient practices. It also applies fundamental lean principles for sustained growth that lead toward a continuous competitive advantage, a defined strategy, or a destination. Operational excellence will drive bottom line results and provide the method for growth to occur quickly — in months, not years.

In some sectors, operational excellence is referred to as operational discipline, which starts at safety and then moves into the overall process.⁴ This is shown in the DuPont Bradley Curve used in implementing safety improvements and assessing maturity. Operational discipline allows for learning continuous improvement and producing efficiencies, which in turn opens current resources for additional work and utilizes resource capacity for growth and innovation.

Operational excellence will adjust over time as the organizations involved continue to improve. Success is determined through integrated performance across revenue, cost, and risk. This is not a trade-off between one and more of these sectors but a disciplined approach across all three. Thus, operational excellence is the execution of the business strategy more consistently and reliably than the competition, producing results with lower operational risk and costs and providing increased customer value and organizational revenue.

Flow for operational excellence

Value is any business process activity for which the customer is willing to pay.⁵ To incorporate this into our flow, everyone needs to connect and understand the flow without management intervention. This can be done by answering the five questions of flow in the office. The design of the system will capture the employee workflow knowledge. There isn't tribal knowledge or an undocumented task in the process preventing the organization from achieving sustained continuous improvement.

The five questions of flow in the office include:

OPERATIONAL EXCELLENCE WILL DRIVE BOTTOM LINE RESULTS AND PROVIDE THE METHOD FOR GROWTH TO OCCUR QUICKLY — IN MONTHS, NOT YEARS.

1. How do I know what to work on next?
2. Where do I get my work from?
3. How long should it take me to perform my work?
4. Where do I send my work once I'm finished with it?
5. When I send my work, is the flow still normal?

For operational excellence to succeed, there are several areas that require specific attention, such as management intervention, non-process design solutions, and proper benchmarking. Management's role in operational excellence is to provide the process design and organizational structure for continuous improvement. This is accomplished through the use of proper tools and training, employee involvement, clear communications of the rules, open dialogue, and alignment. One example is adopting and visualizing easy operational excellence processes that start with the "critical few" and work outward toward other processes.

In traditional lean continuous improvement events, like *kaizen*, the role of management is to identify improvement objectives, set goals and targets, provide leadership, remove barriers, and allow the team to craft their own solution, not management's solution. This gives the team ownership and responsibility for their success by creating a culture for improvement. However, when things break down and management interjects (sometimes referred to as "management muscle"), this becomes the new process for improvement and produces variance and waste.⁶

When management interference is removed and replaced with standardized processes for fixing abnormal events, the benefits are numerous. Team collaboration is enriched due to the transparency and trust instilled in them by management. Employees know how they will receive their work, how they will accomplish their task, and who they will pass their work to. This provides a continuous rhythm for work efficiency allowing for continuous improvement and innovation. The expected outputs from employees include assuming additional responsibilities to increase quality and

OPERATIONAL EXCELLENCE KEY FACT

Management interference is the single element preventing lean improvement programs from sustaining by destroying lean foundations, creating waste in the process, and impeding in individual lean improvement process solutions. These actions reduce quick improvement results and slow the lean culture transformation momentum, resulting in the gradual collapse of the lean culture.

minimize errors.⁷ (See the sidebar on operational excellence regarding management interference.)

Non-process design solutions will limit the overall effectiveness of operational excellence. Any major change beyond continuous improvements for daily task completion made by employees must address the process instead of addressing the symptoms one at time, similar to "cut-and-paste" or "Whac-A-Mole" type bottleneck solutions. As described previously, this approach will eventually destroy the lean culture transformation since it's not addressing the root cause but rather the symptoms.

Benchmarking provides a way to visualize a specific solution and the results of another organization with a similar problem. Unfortunately, this doesn't perfectly tie into our organization and our processes. Proper benchmarking relates to implementing solutions that relate to our specific processes, not another organization's processes. Implementing proper benchmarking is to go beyond the results by reviewing the actions implemented, the processes used, and the organization's approach toward improvement. This will identify the key differences between businesses and how to adapt the processes into the other business.

Steps for implementation

There are the nine process guidelines that should be followed in sequence for operational excellence. Each section describes the actionable implementation for any process. Anyone, including internal and external customers, will

EXHIBIT 1 FIFO Lane Example



know where to locate their information in the flow. These visuals are easy to understand without asking any questions or requesting any reports. The flow is designed visually for anyone to identify if the flow is normal or abnormal. The first six guidelines describe the design of flow for the office. The last three provide the operations of end-to-end flow. Therefore, everyone in the office knows how and when information will flow to bring stability to the office and certainty to the customer, and everyone is able to identify normal and abnormal flow. Since management uses less than 30 seconds per day to check on employees or the process, resources are saved and redirected toward growing the organization rather than monitoring and controlling, which eliminates waste in the system.

The nine business process guidelines for flow include:

1. takt and takt capability (design flow);
2. continuous flow (design flow);
3. first in, first out, or FIFO (design flow);
4. workflow cycles (design flow);
5. integration events (design flow);
6. standard work (design flow);
7. single-point initialization (operate flow);
8. pitch (operate flow); and
9. changes in demand (operate flow).⁸

Takt and takt capability. The first aspect of operational excellence is to understand how often work needs to be processed and completed. This is accomplished by understanding the demand profile for the process. Is it flat, or does it have spikes and/or valleys? When does this happen and at what time? With this understood and any quick variances eliminated, our next

focus is to create the takt capability. This is a measurement of how much volume and mix we can produce over a given period. Since the mix will cause the most variance and will affect how much work can be processed over a given period, identifying multiple takt capabilities is required. The first takt capability is to satisfy 80 percent of normal conditions. The remaining 20 percent is reviewed to identify the peak and valley demand to get a sense of the scale. Please remember the period may not be a full day but half or quarter days. Finally, a periodic review of our takt capability is performed to verify if any recalculations are warranted due to changes in the demand profile. The takt formula is given as follows:

$$\text{Takt} = \frac{\text{effective working time per time period}}{\text{customer requirement per time period}}$$

Continuous flow. In an office setting, pure continuous flow isn't an option due to inconsistent workflow. As an alternative, identifying the specific period to operate in a continuous flow or a one-piece flow process becomes critical. This is called a processing cell and is created to complete work based on established takt time. It is free of priority changes, interruptions, and work waiting to be processed. Everything needed to complete the work tasks are available within the cell. Additionally, everyone has the same time in the cell to complete a work task in order to promote continuous flow.

A work task or element is defined as the smallest discrete increment of required work that can be moved to and completed by another person. These break points include calculating, communicating, documenting, editing, filing, saving, etc. To configure the process cell, every work element is separated

from the employee, compiled, and resequenced such that the total employee's total work time is less than the takt time established for the takt capability. When reviewing work elements, identifying core versus noncore work will verify if value-added work was performed within the process cell. Also, cross-training is used to fully staff the process cell to avoid any possibility of disruption. This includes supervisors and managers participating as needed.

FIFO. Using this as a form of flow, the process can regulate the sequence and volume of work between two disconnected processes, which shows how the work will flow. Thus, inventory is visible at any point in time. Resequencing or reprioritizing work is not necessary since the flow is determined by the next item in line. As shown in Exhibit 1, the normal flow of eight units from process one to process two is clearly visible. When the FIFO lane expands beyond the normal flow of 8 units, the abnormal flow of 9 to 11 units is also clearly visible. When the FIFO lane is filled, a parallel or overflow lane is made to indicate an abnormal flow is occurring and some additional response is required. By color-coding the lanes for normal (white) and abnormal (black) flow, everyone in the organization can tell how the system is performing at any given time. These colored zones in this "supermarket" can identify areas of overproduction or waste.⁹

When emails or network-based files are the flow for the office, FIFO lanes can be pre-established with subfolders for easy visual access. To physically represent emails, a *kanban* card system can be constructed to indicate the flow of information. Another way to physically represent the flow of electronic information is through a whiteboard with color magnets to represent the work representation within the FIFO lanes of work. This physical representation of electronic workflow is critical to prevent management intervention due to lack of flow clarity. The employees can educate management about the flow so that everyone understands it and supports the cultural transformation toward operational excellence.

OPERATIONAL EXCELLENCE KEY FACT

It is said we learn by hearing, reading, seeing, doing, and teaching others with retention rates of 5 percent, 10 percent, 30 percent, 75 percent, and 90 percent, respectively.¹⁰ Why does standard work have to be in paper format, utilizing reading, which has a low retention rate? This is an open question for discussion for all lean professionals seeking improvement.

Workflow cycles. A workflow cycle is the rate at which work moves or flows within or between different work areas or departments along a fixed pathway through the addition of structure and discipline. This stabilizes and regulates flow in the office and provides notifications of when employees will receive their work. To ensure consistent and predictable results, cycles occur at present-time intervals that will establish a guaranteed turnaround time for the entire office. As such, completed work is repeatable, predictable, and known in advance by everyone in the company. Moreover, the guaranteed lead time for receiving the product or service is communicated to both internal and external customers.

Integration events. Integration events are formal hand-offs of information between different areas of the office. This includes gathering large amounts of information from various outputs that are funneled into a single-process input to ensure the information flows and the knowledge is captured without any additional processing. Month-end accounting or project sign off by executives are examples of this effort. This eliminates rework, additional processing, unnecessary status meetings, and waiting.

Standard work. Standard work establishes the best way to complete a task and ensures that everyone will use the same method for consistency and discipline. Standard work eliminates variation in the system since the work is clearly defined and documented. Undocumented procedures, such as tribal knowledge within the organization, are eliminated or incorporated within the flow if this is the best process. Education and lead-

EXHIBIT 2 Operational Excellence Example

| FLOW GUIDELINE # | ACKNOWLEDGMENT FOR PAYMENT PROCESS WITH GUARANTEED LEAD TIME OF TWO DAYS | | | | |
|------------------|--|--|---|--|--|
| | PROCESS CELLS | PROCESS CELL 1 | PROCESS CELL 2 | PROCESS CELL 3 | PROCESS CELL 4 |
| 2,4 | PROCESS CELL NAME | MAIL ROOM CELL | SINGLE-POINT INITIALIZATION CELL | AUTHORIZATION CYCLE | PROCESS CELL 5 |
| 2,4 | LOCATION | MAIL ROOM | ACCOUNTING DEPT | ACCOUNTING DEPT | FILE AND ACKNOWLEDGEMENT CYCLE |
| 4 | TIME CUSTOMER RECEIVES ACKNOWLEDGEMENT; GUARANTEED LEAD TIME | 2 DAYS | 2 DAYS | 1 DAY | ACCOUNTING DEPT |
| 4 | DATE OF PROCESS | DAY 1 | DAY 1 | DAY 2 | RECEIVED |
| 4 | TIME OF DAY FOR PROCESS | 9 AM TO 11 AM | AFTER 1 PM | 9 AM TO 5 PM | DAY 2 |
| 4 | DURATION OF DAILY PERFORMANCE | 2 HOURS | 2 HOURS | 8 HOURS | 3 PM TO 5 PM |
| 4 | NUMBER OF EMPLOYEES | MAIL ROOM STAFF | 1 EMPLOYEE | 2-4 EMPLOYEES | 2 HOURS |
| 1,9 | TAKT | 1 MINUTE | 1 MINUTE | 15 MINUTES | 1-2 EMPLOYEES |
| 1,9 | TAKT CAPACITY-ABNORMAL | 120 | 120 | 128 | 2 MINUTES |
| 1,9 | TAKT CAPACITY-NORMAL | 60 | 60 | 60 | 120 |
| 7 | SINGLE-POINT INITIALIZATION | | SINGLE-POINT INITIALIZATION | | 60 |
| 2,6 | WORK ELEMENT WITH STANDARD WORK | RECEIVED INVOICE FROM CUSTOMER FOR PAYMENT | INVOICE VALIDATED FOR DATA NEEDED FOR PAYMENT | AUTHORIZATION FOR PAYMENT | ENTERS CYCLE FOR PROCESSING |
| 2,6 | WORK ELEMENT WITH STANDARD WORK | | CYCLE STEPS: INVOICE #, NAME, DATE, AMOUNT, DATE DUE, PAYMENT TERMS | ACCOUNTING DEPT VALIDATES FOR PAYMENT | SCAN, FILING PROCESS |
| 2,6 | WORK ELEMENT WITH STANDARD WORK ACTION REQUIRED FOR OUTPUT | STAMPED RECEIVED | STAMPED VALIDATED | APPROVED SIGNATURE FOR PAYMENT | STAMPED "PROCESSED FOR PAYMENT" |
| 3 | FIFO | MAIL SENT FORWARD AS RECEIVED | SEQUENCE NUMBER IDENTIFIED; FIFO LANE OF 60 | APPROVED DATE FOR PAYMENT; FIFO LANE OF 60 | FIFO LANE OF 60 |
| 8 | PITCH RECOGNITION | | KANBAN CARD MADE FOR INVOICE WITH SEQUENCE NUMBER TO SHOW PHYSICAL MOVEMENT OF ELECTRONIC FILES | INVOICE OR KANBAN CARD SENT FOR AUTHORIZATION | INVOICE OR KANBAN CARD USED FOR PROCESSING |
| 8 | PITCH RECOGNITION | | IF NOT VALIDATED, SENT BACK TO VENDOR FOR REQUESTED INFORMATION | IF AUTHORIZATION CYCLE HAS ERRORS, PROCESS INDICATES REWORK - RED FLAG | INVOICE USED FOR FILING, KANBAN CARD RETURNED TO USE AGAIN |
| 8 | PITCH RECOGNITION | | ERRORS LOGGED FOR CONTINUOUS IMPROVEMENT | ERRORS LOGGED FOR CONTINUOUS IMPROVEMENT | ERRORS LOGGED FOR CONTINUOUS IMPROVEMENT |

ership are critical for success in order to promote usage. Therefore, standard work produces higher quality work, lowers the cost, and improves morale. (See the sidebar on operational excellence regarding standard work.)

For operational excellence, there are two levels of standard work that are not combined at any time: activity and flow level. Activity-level standard work occurs at the level of the individual employee. This

UNEXPECTED THINGS WILL OCCUR WITH EVERY SYSTEM. OPERATIONAL EXCELLENCE'S GOAL IS TO LET THE SYSTEM HANDLE SUCH ISSUES WITH ITS LEAN DESIGN.

describes the job, its responsibilities, and the length of time needed to complete it. This also includes what the employee does for the job, such as programs used, file storage location, and documentation. The simpler the better, so videos, photos, and diagrams are used to quickly show data. Flow level is where we connect the activity of one person to another. This describes what will be worked on next, how and when to pass work to the next process, and what the connections between activities are as described in FIFO and workflow cycles.

Single-point initialization. The single-point initialization is the point where work has started to deliver value to the customer. When outside factors are beyond the process's control, sequencing points are introduced to indicate when the flow is under external control of the organization. As such, the flow will experience multiple guaranteed turnaround times.

All information is completed at the initialization point to avoid any irregular flow, rework, or variation to eliminate the reasons for management interference. If incomplete data are passed into the flow, new standards are created to address the error within the initialization point. Unexpected things will occur with every system. Operational excellence's goal is to let the system handle such issues with its lean design.

Pitch. Pitch is used to let employees in the flow know the process flow is working properly and informs employees outside the process cell that information

will be received on time. This is a measurement of the system and how often we measure the system; it does not measure the employees working within the system. As such, it's the pulse of the office. Pitch is not easy to create, but using signals and flags can provide the correct visual system check for the organization. The signals need to be clearly visible, physical, binary, and anticipated without being prompted. For example, to verify that a required file was sent on time for the next step, the employee receives an email notification that the file is ready for usage, can be found in the network drive folder, and will be available according to the guaranteed lead time.

For additional visual indication of flow, visual sign boards at each process cell will indicate how long it will take the information to reach the customer (i.e., guaranteed turnaround time). The location will also indicate when the process cell will meet and at what time (i.e., workflow cycles). Each process cell will contain a whiteboard for colored FIFO lanes to visually indicate when the flow is normal (white) and abnormal (black). Colored flags are used to indicate if the flow within the process is normal (white) or abnormal (black).

Changes in demand. The backbone of operational excellence is the ability to react to changes in demand and fix flow. The organization needs to understand how they act for normal flow on a day-to-day basis. As the organization regularly meets or exceeds customer demand, the expectation of growth is anticipated by virtue of meeting customer demand on time. Using visual management, the pattern of demand is clearly understood. As employees within the process cell focus on the flow, they can identify variation and understand if the flow is either normal or abnormal (i.e., through peaks and valleys). This can be seen with color-coordinating FIFO lanes of work, indicating at what quantity the lane is normal (white) or abnormal (black). Standard work gives the employee the procedure to identify and make changes when there is abnormal flow (black), which is sometimes called "self-healing" value stream

initiatives. The response is pre-established, just like flipping a switch. There is no management interference and no negative impact to the customer. This is the essence of lean.

Example of implementation

When implementing operational excellence, it is assumed that employees and management have completed lean training to implement any lean concepts. To get strategic direction, start to identify at the planning stage the key processes for the organization. After identifying the critical few (three to five), the organization determines the priority of the group entering the operational excellence process transformation. For our exercise, we determine that the accounting process for accounts payable with project-specific authorization was selected for improvement (see Exhibit 2).

Takt and takt capability. To calculate the takt and takt capability of the organization's accounts payable cycle, we examine our demand profile. To analyze our demand, we reviewed the data of daily processed invoices over the past six months and overall monthly activity over the past five years. Using control charts to indicate normal and peak levels, the data indicate utilizing two takt capabilities to handle normal (80 percent of activity) and peak levels. The calculated takt capability for each distinct work area is 60 invoices with an abnormal level of 120 invoices. The individual takt times per accounting area ranged from 1 to 15 minutes, which will be used to identify process cells in the next section.

Continuous flow. For continuous flow, we collect all the activities or work elements for the accounts payable process. The work elements are connected, starting with the receipt of the invoice to file and acknowledgement of payment to the customer. The identification of each work element is compiled to allow for the uninterrupted flow of the work elements through the cell and on to the next cell. This promotes the one-piece flow process from each process cell.

FIFO. After connecting the work elements, FIFO lanes that indicate normal

or abnormal flow are identified. The calculation for the normal FIFO lane to operate is 60 invoices per cell duration. The cell has the capability to expand to the abnormal flow of 120 invoices. By using FIFO, the accounting department can visualize the flow and determine when

THE IDENTIFICATION OF EACH WORK ELEMENT IS COMPILED TO ALLOW FOR THE UNINTERRUPTED FLOW OF THE WORK ELEMENTS THROUGH THE CELL AND ON TO THE NEXT CELL.

additional assistance is needed to handle abnormal flow and prevent management interference. When the FIFO lane exceeds 60 invoices, the office knows we are in an abnormal condition, and our capability is expanded to handle the increased demand.

Workflow cycles. Examining our work elements, we comprise our work into workflow cycles or process cells. In our example, we have several groups of work elements that have similar takt times. To sequence this activity, we organize the process cells to match the demand of the normal capacity with the ability to increase for abnormal levels. Since the normal takt capacity is 60 invoices, we organize our time and employees to meet this demand and flow to produce a guaranteed lead time to the customer at two days. This requires appropriate staffing, from one to four employees, and time duration, from two to eight hours, for each process cell to allow for continuous flow. The cells have the following names: mail room cell, single-point initialization cell, authorization cell, process cell, and file and acknowledgement cycle.

The time of day for processing and number of employees per process cell will be adjusted for continuous improvement. The team decided to start with these levels of activity for each process cell to guarantee lead time without affecting other work-related processes. As the process teams learn with experience, the overall process will improve and move toward continuous flow without time breaks in between process cell operation. Thus, we will expect to see the time of operation move from once a day to two or three times a day to improve the flow to the next operation.

Integration events. In this workflow, there are no external events engaged with this flow so the connections established with all five process cells are unchanged.

Standard work. We now set the workflow to standard work procedures to describe the five flow questions for each employee in the flow for each workflow cycle. This allows for the process to operate in a controlled, efficient, and effective way; thus, the process is lean and will eliminate errors that drive management intervention.

Single-point initialization. The overall process cycle established the single-point initialization at the point after the mail room has stamped the invoices for payment as received. The accounting department receives the stamped invoices and

validates each invoice that can enter the process flow without error for processing per standard work. If the invoice is validated, it receives a sequence number and is moved into the flow for the next workflow cycle. If the invoice is elec-

tronic, a physical *kanban* card is utilized to physically visualize the document in the process flow. This allows for everyone to see the normal and abnormal flow of the information in the process.

If errors are noted in this workflow cycle, the invoice is removed from the process to correct the error before advancing within the flow. The error is noted in a continuous improvement log to incorporate into future standard work and eliminate any variance that could lead to management intervention.

Pitch. To identify pitch, we need to identify the flow through visual, physical, and binary means. Additionally, the flow should be anticipated without having to ask anyone about it. As our flow is visualized we combine both paper invoices with electronic invoices using recycled *kanban* cards that include only

the details needed to identify the electronic invoice in the system (i.e., invoice number, sequence number, and vendor number). To signal abnormal flow, a red flag is initiated or an email is sent to the team to notify them that abnormal procedure for flow is needed.

Changes in demand. The identification of normal and abnormal demand will allow for employees to adjust the takt capability of the workflow cycle within each process cell to ensure the guaranteed lead time to the customer. This is performed by using visual management of the workflow cycle, such as FIFO lanes and pitch process cell flags with email notification. Standard work directs employees to implement necessary changes as the flow is operating through the workflow cycle.

All this is designed and performed in sequence, step by step, to avoid missing the optimal flow of the process that leads to business growth.

Conclusion

Companies that reach for operational excellence achieve a systematic and effective approach toward business operations, a continually productive and innovative workforce, and an organization built for sustainable growth. This is accomplished through creating and delivering products and services that customers want at the time they want it.

Operational excellence is the next generation of lean because the transformation is built into the process design. This allows for lean foundations to work as intended while providing quick results, promoting positive reinforcement, and cultivating a culture of continuous improvement. The accountant is in a great position to start the transformation since many of the process cycles that involve both external and internal customers are within the accountant's sphere of influence to provide a necessary mode for financial impact.

As stated at the beginning of the article, operational excellence's goal is to transport our lean journey into action-

THE ACCOUNTANT IS IN A GREAT POSITION TO START THE TRANSFORMATION SINCE MANY OF THE PROCESS CYCLES THAT INVOLVE BOTH EXTERNAL AND INTERNAL CUSTOMERS ARE WITHIN THE ACCOUNTANT'S SPHERE OF INFLUENCE TO PROVIDE A NECESSARY MODE FOR FINANCIAL IMPACT.

able and sustainable continuous improvement. This involves moving away from our previous approach of lean and into a new world of lean-focused opportunity and growth. ■

NOTES

¹“Supply Chain news: What are the barriers to lean success?” Supply Chain Digest (Jan 30, 2013). Available at: <http://www.scdigest.com/ontarget/13-01-30-2.php?cid=6680>.

²*Ibid.*

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⁷Ohno, T., *Toyota Production System: Beyond Large-Scale Production*. (Portland, O.R.: Productivity, 1988).

⁸*Op. cit.* note 4.

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