



HR's Role in the Lean Organizational Journey



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Organizations ranging from hospitals to manufacturing struggle to find sustainable continuous improvement methods. The complexities and interrelationships of such organizations require that continuous improvement efforts be broad and self-reinforcing. This need has generated dozens of initiatives from business and academia including the implementation of balanced scorecards, re-engineering, 360-degree performance reviews and Total Quality Management, to name a few. Most may provide partial solutions to the organizational need for continuous improvement. With trade barriers, information barriers and cost-of-business barriers dropping, competitiveness is increasing. Organizations need good products, good brands, good strategies, good partnerships, good people and good financial resources to succeed. In addition, however, an organization cannot succeed perpetually without continuous improvement—a fact across the board, from manufacturing plants to banks to hospitals to nonprofits. How should an organization embark on this all-important task? One solution is to transform an organization using “lean.”

Lean is not a new concept. According to James Womack and Daniel Jones, (1991) authors of *Lean Solutions*, *Lean Thinking* and *The Machine That Changed the World*, the concepts of lean started more than 90 years ago.

Organizations implementing lean experienced a 63-percent reduction in customer lead-time, a 61-percent increase in market share, a 24-percent increase in product diversity and a 39-percent time reduction to launch new products (Standard and Davis 1999). But what leadership and organizational conditions must exist to institute a lean transformation? Can the human infrastructure and HR department contribute to this success, and if so, how? These questions led to the authors' study, focusing on organizations that have implemented lean and the leadership and organizational conditions that either assisted or impeded this lean transformation. The study's goal was to recognize and document a standard process of leadership and organizational conditions ultimately supporting organizations in their attempts in a lean transformation.

From this study, surveying more than 220 managers and employees, five significant predictors of successful lean implementation were identified:

1. The development of teams as a supporting structure of lean
2. The calculation and communication of metrics
3. Communication among organization members, particularly across organizational barriers
4. Managers explaining to the employees their role in lean implementation
5. The acknowledgement and celebration of successes toward lean implementation.

In addition, the authors discovered conditions to assist HR to support the organizational journey toward lean.

Lean 101

In 1987, a research team from MIT's International Motor Vehicle Program studying the Toyota Production System coined the term "lean" to describe the system as one that "needs less of everything to design and produce products economically at lower volume with fewer errors" (Womack 2002). Later, in their book *The*

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Machine that Changed the World, Womack and Jones (1991) defined lean as a way to do more with less—less human effort, less equipment, less time and less space—while coming closer to providing customers with exactly what they want. Since that time, a wide range of books has become available, and many industries beyond manufacturing have joined the lean journey (Liker 2003, Dennis 2002, Flinchbaugh and Carlino 2006).

Today, although many definitions exist, all definitions agree that lean stresses the elimination of *waste*, known as *any resources beyond the absolute minimum required to add value to a product or a service* (Ohno 1988, Suzaki and Womack 1991, Womack 1996, Standard and Davis 1999).

Lean, however, goes beyond just waste elimination. It aligns how an organization thinks and works (Flinchbaugh and Carlino 2006). In its simplest form, the concept of lean production includes principles such as communication, teamwork, efficient use of resources, elimination of waste and continuous improvement (Womack, Jones and Roos 1991). Womack (2002) maintains that institutionalizing lean principles requires a transformation in corporate culture, practices,

processes and management. Many other corporate internal functions have been adopting lean principles beyond the core of manufacturing, including product development and supply chain management and, more recently, accounting. But in many companies, HR remains untouched and unchanged by their company's commitment to lean. And for those who have engaged HR, it often does not contribute as deeply as its potential (Tracey and Flinchbaugh 2006). HR is strategically placed to lead in these areas.

Lean at Work

Lean manufacturing has gained significant exposure and commitment in the past 20 years. Jusko (1999) reports that in one study, nearly 55 percent of corporate executives identified lean manufacturing as "extremely critical" to their ability to achieve world-class status, and 40 percent identified it as "somewhat critical" (Jusko 1999). Supporters of lean operating systems maintain that the implementation of lean is more efficient based upon the commitment of people to continuously improve productivity and quality (Carroll 2001). While lean is most often communicated as a set of tools, it is most effectively practiced as a comprehensive operating system including principles or culture, systems and processes, tools and skills, and even evaluation and metrics (Flinchbaugh and Carlino 2006). Corporations practicing lean report improvements in safety, quality, delivery, cost and even morale. This in turn often leads to overall improvement in financial performance. The authors' observations, however, indicate that while most companies are achieving performance gains, few would consider their lean efforts extremely successful (Flinchbaugh and Carlino 2006).

But why do some organizations achieve greater results than others? Given the extensive materials on technical details of lean, the problem may not be a lack of knowledge and understanding of lean (The Lean Library 2006). The problem is more likely related to how lean

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is deployed, rather than its applicability, given the breadth and depth of success stories. What is a "must-have" and what is solely positive or supporting? Because every organization is different, no universal road map for lean success can exist (Flinchbaugh and Carlino 2006). In addition it appears that the role HR has taken in lean transformation is far from active (Tracey and Flinchbaugh 2006). It is in the pursuit of leadership and organizational conditions, and HR's role in lean transformations, that guided this research. HR departments and professionals alike can be left behind or help lead the organization to success with a road map for lean success.

Walking Through the Study

As previously stated, this study's goal was to recognize and begin the documentation of a standard process and the enabling leadership and organizational conditions

that ultimately support corporations in their attempts at a lean transformation. The study began with an extensive review of existing research on lean, with particular attention paid to the writings on culture, leadership and corporate environmental factors that support lean initiatives.

Variables and factors relating to instituting a lean transformation were identified and sorted into six areas:

- ▶ Demographics (age, sex, ethnicity, etc.)
- ▶ Work environment
- ▶ Innovation, tools and technology
- ▶ Lean implementation
- ▶ Communication
- ▶ Rewards/benefits of lean implementation.

Two separate surveys were designed. One addressed employees working under direct supervision; the other addressed supervisors and managers charged with ensuring lean practices within their department(s).

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Each survey asked similar general questions, but different role-specific questions related to the implementation of lean. From 72 different sites or organizations, 154 workers completed the employee survey, and 72 managers completed the management survey.

Employees and Managers Respond

Employee survey responses were categorized. The categorization was based on how responses related to lean implementation. The strongest predictors, in order of significance for employees, were:

- ▶ Teams were or will be developed to implement lean.
- ▶ Success related to the implementation of lean has been or will be celebrated by the organization.
- ▶ Departments within the employees' organization stay in constant communication about the implementation and outcomes of lean.
- ▶ Metrics are calculated to determine lean implementation success.
- ▶ Throughout the implementation of lean, managers talked to the employee about the employee's role in implementing lean.

These results suggest that the development of teams to implement lean, using metrics to measure success, the celebration of that success, as well as communication between departments and to employees regarding their roles, significantly accounted for employees' perception of a successful lean implementation.

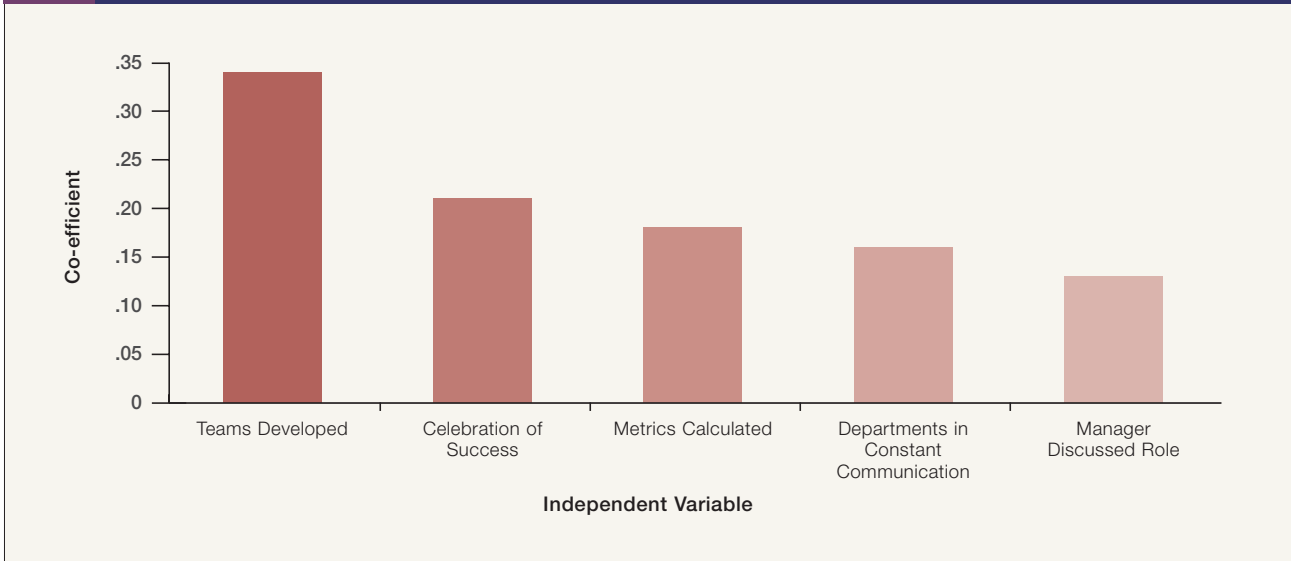
The significant predictors of successful lean implementation for managers were:

- ▶ Success related to the implementation of lean has been or will be celebrated by the organization.
- ▶ Metrics are shared with employees.

These results suggest that the communication of the measurement to employees and success of lean implementation significantly accounted for managers' perception of a successful lean implementation.

(See Figure 1 and Figure 2 on page 53.)

FIGURE 1 Employee's Perception of Successful Lean Implementation



The Bottom Line

The research demonstrated that success with lean depends upon how HR changes and adapts its approaches along with the rest of the organization. HR can play a guiding role in lean or be an excuse factor for those pushing the change along. Five key predictors can support an organization's attempt to improve business through lean. They are:

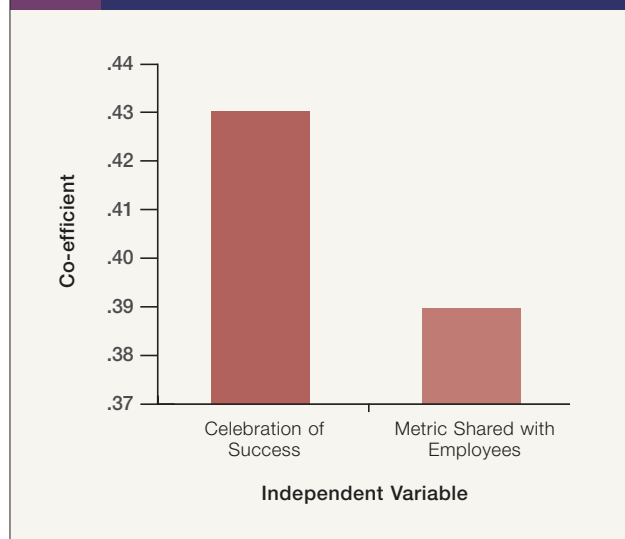
1. Development of teams as a supporting structure
2. Calculation and communication of metrics
3. Communication across boundaries
4. Communication to employees regarding their role
5. Acknowledgement and celebrations of successes.

Development of Teams as a Supporting Structure

Teams are an important element of a lean organization. The research supports that the development of effective teams extends deep inside and outside of lean transformations. Within lean, teams are important because the whole process must work together to build value for the customer, and if teams cannot work together then the process cannot work for the customer. How teams work is more important than their mere existence.

Teams in a lean environment need the following. First, they need a common language, common principles and common tools. Second, they need a common drive provided by vision, metrics and goals. Third, they need to design the work around them visually so that there is high agreement about what work must be done and how it should be done. Problems need to be exposed immediately so that they may be resolved.

FIGURE 2 Manager's Perception of Successful Lean Implementation



No surprise so far, but fourth, and perhaps most important, teams need the capability and the skills to manage themselves.

In a lean environment, teams need a great deal of autonomy to manage and improve their process, but this is not done in a vacuum. Teams are still part of the larger organization around them. Providing more autonomy than necessary or prudent can be a big mistake, for with this new authority comes new responsibility—the responsibility to function as a productive team together, and with other teams. Focusing on the expected behaviors of working with a team can be an effective target of incentives. It has been suggested that “a most significant development in commitment theory has been the recognition that commitment can be directed to targets other than an organization” (Giancola 2006), where in this case, the team function is the target.

The way an organization pays employees can be the first dagger in the cooperation expected in a lean environment. Regardless of the magnitude of the incentives, if they focus on individual behavior or performance, the resulting behaviors will not support a unified team approach. As a simple manufacturing example, if an operator is measured on how many units it produces or keeping a machine utilized, it will overproduce to its customers’ needs, resulting in waste. Pay must be aligned to the expected team-based behaviors of lean.

Calculation and Communication of Metrics

Metrics “keep score” and determine if progress is being made. In a lean environment, several criteria should be considered when developing metric systems or scoreboards. First, a scoreboard and its relevant metrics must be “owned” by those who own the process, whether it’s a cell team on the floor, or an office team such as customer service. Therefore, metrics must be easy to update by these process owners. Second,

metrics must be as predictive as possible, with only a small fraction of the metrics looking backward. Because these metrics should support daily decision-making, predictive metrics offer much more useful decision support than those that are rearward facing. Third, management must support the metrics, deciding who will review the metrics, when they will do so, what they will look for, and how will they respond to the metrics with action. Fourth, and perhaps most importantly, the metrics must point in a steady and consistent direction toward the ideal state.

It is important to understand that any time metrics connects to pay, behavior is influenced. Most often, the outcome is negative, although this does not make the practice a negative one. Metrics tied to pay are often outcome metrics, whereas metrics for daily decision-making are often predictive measures, not outcome-based. With this in mind, the predictive measures used for empowered decision-making must be linked to those used for incentives. This is a metric design issue and an education of teams issue.

Communication Across Boundaries

Organizations that are successful in lean also successfully improve their communications, particularly across boundaries such as departments and functions. In a lean environment, process focus takes priority over functional focus. Successful lean processes have material or information flowing across functional boundaries, so naturally organizations that are successful in lean will also improve communications across functional boundaries in the manner most efficient and effective for the customer.

The research found that communication in a lean environment must be vertical, horizontal and two-way. It is not enough for a lean leader to be excellent communicating the vision and direction to the masses of the organization. The lean leader also must convey information about the changes

Mistrust and misunderstanding of the incentives and motivations of groups who require cross-boundary collaboration run rampant in many organizations.

going on at the top. Lean changes the work and the way people think, so employees need to see that the organization's top-ranking individuals are changing the way they think before the remainder of the employees will do the same.

Bottom-up communication is equally important. It provides valuable, timely information about changes that are going on, and about new barriers that arise as progress is made. Horizontal communication must occur directly from the source of the information to the need. The ability to communicate, and for that communication to be received and used, is important to assure process experimentation where the work is done. Increased experimentation can result either in increased chaos or in organizationwide improvement. The key variable differentiating between these two states is how well an organization communicates directly from person to person.

When it comes to the link between communication and pay structures, two important variables must be considered. The first is clarity in communication about the impact and expectations regarding incentives and pay. Ambiguity in this matter quickly leads to confusion

and a lack of alignment. The second issue is in regard to differences of incentives across the organizational boundaries and how it affects ambiguity. Mistrust and misunderstanding of the incentives and motivations of groups who require cross-boundary collaboration run rampant in many organizations. When a lean transformation begins to take root, cross-boundary collaboration and communication are an absolute must. The authors' experience has indicated that when groups cannot align on the best way to collaborate regarding systemwide waste elimination, the incentives that drive misaligned directions often is the first culprit.

Communication to Employees Regarding Their Role

Part of management's communication for lean implementation includes clarity of each employee's roles and responsibilities. This communication, however, is a two-person process. Lack of employee commitment was one of the top barriers to implementing continuous improvement. This study traced the roots of employees' negative attitudes to the management team inconsistently communicating with them. In addition, it was discovered that employees needed to be trained in communication and discussion techniques; otherwise they do not understand how to ask questions and how to elicit feedback.

When many organizations begin their lean journeys, they train everyone in lean. The organization then gives everyone the same role: Go out and apply lean. However, as with any other aspect of an organization, success depends upon role clarity. Roles must change as an organization goes toward lean maturity, so the rate at which an organization reaches maturity partly depends on lean role clarity and integration throughout the journey. Maintaining role clarity as these roles dramatically change appears to be an important criterion of success.

If objectives remain clear, employees feel a sense of accomplishment and, if appropriate, the accompanying reward. However, because lean is an endless journey, employees are unsure when to celebrate accomplishment.

When pay is linked to lean efforts, organizations often start with a direct expectation of participation in lean activities. The quality of participation is not considered important, and this drives behaviors toward phony involvement. This must evolve, however, as roles evolve. Quality of involvement, behavior change and direct performance improvements must be taken into account with role expectations and incentives. However, it is important not to overemphasize the size of contribution, which can lead to frustration, as some individuals are in a position for a greater contribution than others. But at any phase, consistent and clear communication of expectations is vital. Zingheim and Schuster (2005) state: "Championing must be continuous, not just at the start of the incentive plan. Incentives are the responsibility of the managers from top to bottom—helping to set goals, coaching employees on how to reach the goals, problem solving with employees, removing barriers to performance, communicating, and helping ensure everyone knows

what is required of them. The reason for the incentive is improved results, and the incentive plan serves as a communications vehicle to accomplish this."

Incentives require communication and act as a means for communication simultaneously.

Acknowledgement and Celebrations of Successes

Most corporate initiatives have a distinct beginning and a clear, objective outcome, but lean is a never-ending journey. If objectives remain clear, employees feel a sense of accomplishment and, if appropriate, the accompanying reward. However, because lean is an endless journey, employees are unsure when to celebrate accomplishment. Simultaneously celebrating and raising awareness of the remaining performance gap is a tough balancing act. However, this research demonstrated that organizations finding ways to celebrate success along the journey are more successful at lean. They clearly define milestones, communicate progress toward the milestones and celebrate successes along the journey.

So how does an organization acknowledge success on a neverending journey? First, the organization must learn to recognize and communicate progress. Then it must decide how to reward such progress, if at all. Do not overemphasize financial incentives, although those that exist must be aligned to lean efforts.

Recognizing success in lean first requires that it be understood as a journey. Without implying that ultimate lean has been achieved, leadership must balance recognition of the success achieved with maintaining the tension for future progress. If tension is sustained without recognizing progress, organizationwide burnout will follow. Managers should understand that what they choose to recognize as success, and how they choose to recognize it, can either reinforce human progress or retard it.

Rewarding progress is a more complicated challenge. All solutions to the reward problem have downsides.

Some can be catastrophic. If people are rewarded in proportion to the size of the ideas they contribute, big ideas abound, and the development of people not in the position to make big contributions is minimized. Another big problem is rewards quickly become entitlements, losing the intended effect. Some successful organizations give no significant direct compensation for ideas contributed or for participation in lean. Unfortunately, the authors know of no thorough empirical data supporting a common-sense lean practice that the most-effective encouragement is to support the people contributing ideas day-in and day-out by listening to those ideas and acting upon them.

However, no matter how deep or sophisticated pay structure aligns to lean expectations, culture changes and performance gains, financial incentives cannot replace employee engagement and support.

Next Steps for the HR Professional

For HR executives, managers, professionals or consultants, an organization's move to and through the lean process presents many challenges. How does this professional engage? What levers should HR pull?

As a first step, the HR professional should know how the decision-making process for a lean initiative is typically established. There are several options that most companies fall into either because of suitability or popularity. The first, most often recommended in books and case studies is the lean steering committee. This is particularly popular when a factory is launching a lean initiative independently, or when employee engagement is a predetermined specific outcome desired by the objective within the organization. These steering committees often begin as a coalition of several change agents across the organization that are committed to lean and have banded together to make the lean process a reality. The committee often has a diverse representation vertically but is narrowly focused on operations horizontally. The benefits of the committee

approach are its broad reach and representation, and its downside is the lack of clear decision-making and ownership. Engagement with such a committee is not difficult, as its membership is often self-selected and working framework rather loose. The authors predict that HR will rarely be rejected if a representative simply starts showing up (as the group needs "all the help it can get"). The immediate chance to add value is to use HR skills, including recruitment and selection, performance assessment, team building, communication processes and training, to assist the group structure itself, grow beyond its initial boundaries and ultimately succeed at a greater rate. However, the authors have found that the committee will rarely be willing to "take a break" to restructure, and HR's presence and input must connect with the group seamlessly.

Another popular method of leading a lean initiative is through a formal lean office, often called a Lean Promotion Office, although promotion is hardly the limits of its focus. In a manufacturing environment, these groups are often filled with people who understand lean, whether they came from the management ranks, from process engineering or from the shop floor. In any case (whether in manufacturing or not), they were not selected, in most cases, because of change-management skills. They also likely want to see lean happen in such a way they feel the frustration of "pushing the rope." Here, HR can provide assistance by providing input on shaping and getting the message out, on team organization and leadership and on using existing systems to provide incentives and motivation. Committee members are not likely waiting for HR to volunteer, because they do not understand how they can use the skills of HR. So an HR representative must make the case.


Lastly, there is the direct leadership model. This usually involves one person, either the line manager, the CEO or the plant manager. If this person is leading lean, he or she likely has a clear vision of what lean

means to him or her. That vision is based on how the organization would work and perform. However, this person may have trouble translating that vision into terms that everyone can understand. The leader is running at full speed, and most people are jogging along trying to figure out exactly where they are going. Helping the person assemble a plan to translate the vision down to tangible actions, helping people understand what the vision is and how they should be fulfilling it, provides immediate value.

Once HR has a place in the decision-making process, many of the issues discussed in this paper can get increasingly serious attention. To secure that seat in the process, first, understand how lean is being led. Then find a way to add immediate value to those making lean happen.

Conclusion

This study assessed specific organizational conditions that contributed to success as organizations transformed their workplace into a lean organization. The results show that despite the significant history behind lean and its application within organizations of all types and sizes, documentation of conditions for successes are elusive. While lean transformation may be a powerful means to improve businesses, too few organizations engaging in lean are able to achieve the promised gains. However, five key variables predicting perception of successful lean implementation were identified in this research study: (1) the development of teams as a supporting structure of lean, (2) the calculation and communication of metrics, (3) communication, particularly across organizational barriers, (4) the manager discussing employees' role in lean implementation and (5) the acknowledgement and celebration of successes along the journey.

These findings can be used as a springboard for organizations and, more specifically, those in human resource roles as they begin their lean journey. 

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