Chapter 4 TOPICS IN LEAN SUPPLY CHAIN LEADERSHIP

Learning Objectives

➢ Define leadership and its value to lean supply chains
➢ Explain the difference between managers and leaders
➢ Describe leadership traits expected of a successful manager
➢ Describe leadership styles used by managers
➢ Describe leadership skills expected of managers
➢ Describe coaching leadership
➢ Describe how teams can be used to lead change in organizations
➢ Describe obstacles to leadership
➢ Describe the importance of leadership in supply chain management
➢ Describe why strong leadership is needed for lean
➢ Describe how leadership training can help implement lean supply chains

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Introduction

In Part 2 we begin a series of chapters organized around topical coverage of lean supply chain issues. The topics in this chapter relate to one or more of the lean supply chain management principles discussed in Chapter 3. The content of this chapter will aid in the understanding and implementation of several lean supply chain management principles. The principles in the darkened boxes in Figure 1 are related to this chapter's topics.

Leadership Defined

To *lead* means to guide or direct a course of action. In any lean supply chain there are two types of individuals: those that lead and those that follow. A *leader* is usually a manager who possesses commanding authority or influence over followers. A leader uses leadership to guide and direct followers to achieve lean supply chain goals. *Leadership* can be defined as an integral part of the group phenomenon. There can be no leadership without followers in a group. It is an influencing mechanism for guiding members of a group with a course of action to achieve specific

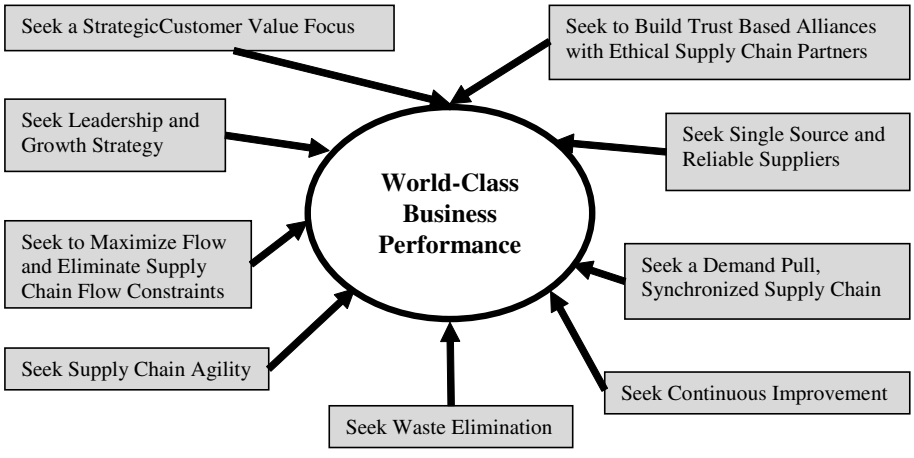

Figure 1. Chapter related topics of lean supply chain management principles

goals. It is a means of initiating a social structure (i.e., a formal hierarchy with a leader on top).

As Bodek (2008) observed, lean supply chains need leaders. Leaders in lean supply chains are expected to be the managers that run operations. Unfortunately, not all supply chain managers are leaders, but they can be if they know what is expected of them and are willing to meet the challenges that face them in that role. There are differences between the role of a manager and a leader. In Table 1 some of the comparative differences Bennis (1989) observed become apparent.

Table 1. Contrasting roles of managers and leaders

Manager role	Leader role
Administrator	Innovator
Maintains	Develops
Relies on Control	Relies on Trust
Short-Range View	Long-Range Perspective
Does Things Right	Does the Right Thing
Eye on the Bottom Line	Eye on the Horizon
Asks How and When	Asks What and Why

To implement and sustain a lean supply chain requires a leader to champion the change and continually advance the program. To accomplish this requires

successful leaders. Research on leadership has revealed that successful leaders can be identified by their traits.

Traits of Successful Leaders

Leadership research and literature abounds with the identification of leadership traits (Northouse, 2008; Bass and Bass, 2008; Cannella, *et al*., 2008, Zaccaro, *et al*., 1991). *Leadership traits* are characteristics or qualities that leaders tend to possess. Not all leaders possess all leadership traits, but in a general sense, managers who would be leaders demonstrate over the course of their careers traits that have helped them to be successful. Some of the leadership traits of successful managers are presented in Table 2. These can be viewed as potential qualifying criteria for those who would call themselves leaders.

Table 2. Leadership traits of successful managers

Leadership trait	Explanation
Intelligence	This refers to the cognitive ability to think critically, to solve problems and make decisions. It is expected that leaders have above average intelligence.
Integrity	This refers to the behaviors of honesty and ethical conduct leading to trust.
Stability	Stability here refers to leaders being emotionally in control of themselves and their ability to project that stability to others.
Belief Structure	Leaders believe they, not the environment, control their fate, that their behavior directly affects their performance. They are people who take responsibility for their behavior. They set objectives and develop plans to achieve them. They learn from their mistakes and welcome change.
Self-Confidence	Refers to a leader's degree of self assurance or conscientiousness in their judgment, decision making, ideas, and capabilities. This influences individual goals, efforts, and work persistence. Without self-confidence leaders are less able to influence followers.
Flexibility	Refers to the ability to adjust and adapt to differing situations, to implement change, and the ability to influence others to cause change.

Table 2. (Continued)

Leadership trait	Explanation
High-Levels of Energy	This refers to physical stamina, conscientiousness, and the toleration of stress. They solve problems, do not give in to frustration, overcome obstacles, and do not give up.
Dominance	Refers to the ability of taking charge of situations and the desire to be a leader.
Sensitivity	This refers to a leader's empathy capacity to understand people, to communicate with and influence them effectively.

These leadership traits are very much in line with lean supply chain management principles. Being agile or flexible is a primary lean supply chain can principle. Also, emotional stability and the lean production stability principle go hand-in-hand supporting each other. All lean supply chain managers have to be intelligent to solve problems and have the self-confidence to motivate others to do their jobs. Given the dynamic nature of a lean supply chain, which constantly changes to meet changing customer demands, a leader would have to have high-levels of energy. Since lean principles also seek to empower employees, managers would have to have the sensitivity to understand and communicate with them. Also, to actually sell lean supply chain principles requires leaders to have the self-confidence to know they will benefit their organization and the integrity to build trust in all supply chain partners. Finally, it is expected of all lean supply chain managers to have the dominance to take charge and make changes when required.

Leadership Styles and Skills

Some managers utilize a style of leadership to express their approach to leading subordinates. The literature abounds with research on leadership styles. The sampling of some of the most common types of *leadership styles* presented in Table 3 are adapted from House and Podsakoff (1994, pp. 58–64).

While the various leadership styles are not mutually exclusive for any one leader, they can be related to lean supply chain management. Lean supply chain managers are expected to set examples for others to follow (i.e., role modeling), be passionate about lean principles, be able to motivate employees to solve select resource problems (i.e., selective motive arousal), inspire employees to adopt l ean by setting personal examples, lectures, or training (i.e., inspirational communication), reach out across the supply chain to all partners (i.e., external

Table 3. Leadership styles

Leadership styles	Explanation
Role Modeling	Leaders whose image is used for followers to emulate
Passion and Self-Sacrifice	Leaders who display passion for leading and demonstrate a willingness to make extraordinary self-sacrifices to achieve their vision
Selective Motive Arousal	Leaders who are able to select specific motives of followers and motivate followers to be successful
Inspirational Communication	Leaders who communicate messages in an inspirational manner
External Representation	Leaders who act as spokesperson for the organization to external organizations
Image Building	Leaders who are self-conscious about their own image, and their competence, credibility and trustworthiness are perceived by their followers in terms of image
Frame Alignment	Leaders who can link and bring into congruence the interests, values and beliefs of both the leader and the followers
Vision	Leaders who articulate an ideological vision that describes a better future, based upon personal values deeply held by the leaders and followers

representation), be competent and credible in guiding lean supply chain activities (i.e., image building), empower employees by showing the mutually beneficial advantage of lean supply chains (i.e., frame alignment), and consistently provide a vision of where the lean supply chain organization is and where it is going in the future. Whatever style or styles a leader might choose to lead a lean supply chain, they all seek to support the lean supply chain management principles.

To help lean supply chain managers implement their styles of leadership, a number of *leadership skills* have been suggested in the literature as prerequisites to a successful outcome. In today's global context, Marquart and Engel (1993, pp. 62–64) have suggested a set of five basic skills for successful leaders. These five skills are presented in Table 4.

Other leadership skills suggested by Whetten and Cameron (1991, p. 8) include: verbal communication (including listening), managing time and stress, managing individual decisions, recognizing, defining, and solving problems, motivating and

Table 4. Leadership skills

Leadership skills	Explanation
Cultural Flexibility	In a global supply chain it is essential to have awareness and sensitivity to differing cultures of internationally diverse supply chain partners. Leaders must have the skills to recognize the value of diversity and celebrate it in their organizations. In global supply chains some partners are more critical than others, and culture can be a critical success factor in creating integration.
Creativity	Leaders must have the innovative and creative skills to bring to their organization a comparative advantage. Also, they are expected to create an environment that motivates subordinates to be innovative and creative. In global supply chains, and all supply chains, being creatively able to identify and solve problems requiring coordination of efforts is an essential ingredient for business success.
Human Resource Development Skills	Human resource development (HRD) skills include designing and conducting training programs, transmitting information and experience, developing a learning climate, providing career counseling, and creating organizational change among other things. Training and creating change is what lean supply chain management is dependent upon, as well as learning from one's own errors. HRD is all about leadership and managing human resources within a global context.
Continuous Learning	Continuous learning is continuous improvement (CI) in the way we do business. All lean supply chain management functions operate within the context of continuous improvement. Leaders need to install, promote, and achieve a culture of CI throughout their supply chains.
Communication Skills	Leaders need to communicate with partners of their supply chain. As mentioned in Chapter 2, communications technology has chiefly led the field of supply chain management. It is a major reason for having caused supply chains to exist today in their present form. Without effective and efficient communication, leaders cannot direct, plan, coordinate, or guide supply chain operations.

influencing others, delegating, setting goals and articulating a vision, self-awareness, team building, and managing conflict. These are also essential and specific skills needed for lean supply chain management implementation. Working with employees to identify and solve problems, motivating them to adopt lean supply chain management principles, setting lean performance goals, working in teams to build trust across a supply chain, and managing the conflict inherent in all supply chain coordination efforts are necessary skills for lean supply chain managers.

Coaching Leadership

Coaching is a form of leadership based upon feedback and communication (Hunt and Weintraub, 2002; Gigilo, *et al*., 1998). In keeping with lean supply chain management principles, it is a process of giving motivational feedback to maintain and improve performance. Coaching seeks to maximize supply chain partner strengths, while minimizing weaknesses. It helps leaders to focus efforts on goals and to develop resiliency and interpersonal skills. As observed by Hunt and Weintraub (2002), organizations are training managers to be coaches as a means of improving organizational performance.

Coaching guidelines for leaders include the following:

- Have supply chain partners assess their own performance
- Avoid blaming or embarrassing supply chain partners
- Develop a supportive relationship with supply chain partners
- Focus on the desired behaviors of the supply chain partner, not simply on the supply chain partner itself
- Give praise and recognition when possible
- Give specific and descriptive feedback
- Give coaching feedback to managers in the supply chain
- Provide coaching training to managers in the supply chain
- Make feedback timely

Teams

A *team* is a unit of two or more individuals with skills that are committed to a common purpose and set of performance goals for which they are accountable. As mentioned in Chapters 1 and 2, teams can play an integral part of leading an organization to improved productivity, quality, efficiency, employee satisfaction, and customer satisfaction. However, team effort does not always lead to success.

Poorly run teams have resulted in negative outcomes, such as increased costs, stress, and lower group cohesion (Lussier and Achua, 2004, pp. 263–265).

Characteristics of effective teams have been described in the context of four criteria presented in Table 5 (Dunphy and Bryant, 1996; Cohen and Bailey, 1997):

Table 5. Effective team characteristics

Team characteristic	Explanation
Innovation/Adaptation	These are teams capable of rapidly responding to environmental needs and changes with creative solutions.
Efficiency	These are teams that enable organizations to attain goals with creative solutions.
Quality	These are teams that are able to achieve superior results with fewer resources and are able to exceed customer expectations.
Employee Satisfaction	These are teams that have the ability to maintain employee commitment and enthusiasm for team efforts by meeting both customer goals and individual team member goals.

How can we make teams more effective? Leadership plays roles in making teams effective. It is up to team leaders to guide teams and help them evolve and advance. Lussier and Achua (2004, p. 267) have suggested a series of guidelines that can be used to aid in leading teams to become more effective:

- Develop trust and norm expectations
- Identify team strengths and build on them
- Place emphasis on team recognition and team rewards
- Recognize individual needs and try to satisfy them in a timely manner
- Recognize team needs and try to satisfy them in a timely manner
- Support team decisions
- Empower teams to accomplish their work
- Provide teams with work that will motivate and challenge them
- Develop team capabilities and flexibilities to deal with change

Consistent with lean principles, we see in the leadership guidelines above that trust building, empowering, and enhancing flexibility are as important tasks in team leadership as they are for lean in general.

Leaders in lean supply chain environments should realize the benefits of delegating tasks and self-leadership of teams. Some of the benefits of such an environment reported in the literature include:

- Allows employees to be involved in controlling tasks where they are freer to make original contributions and advancements
- Frees up the leader's time for new tasks and strategic activities
- Provides employees with opportunities to learn and develop in a freer environment
- Increases employee motivation and job satisfaction

Ideally, in a lean supply chain environment teams will be self-managed. In *self-managed teams* (SMTs) the role of leaders is to facilitate processes and support team members, rather than the traditional command and control functions. In self-managed teams leaders set the general direction and goals, and team members make all the other decisions and implement them. Numerous organizations such as Toyota have used SMTs for decades. SMTs have five characteristics:

- The power to manage their work, set goals, plan, staff, schedule, monitor quality and implement decisions
- Broad base of experience for members so that no outside management expert support is needed
- Coordination and cooperation resides within the team so that it is independent of other teams and handles its own coordination efforts
- Internal and flexible leadership so that members often rotate as leaders within the team, depending on the situation faced

As we can see in Figure 2, SMTs are self-contained and perform most of the basic leadership and management functions to achieve their goals. Leaders still perform many useful functions in dealing with SMTs. They assist teams in obtaining resources needed to solve problems and implement solutions, but do not interfere unless it is desired by the team members.

Obstacles to Leadership

Leadership is not without difficulties. There are always obstacles that prevent lean supply chain managers from achieving all that can be achieved from using lean supply chain principles. In addition to the usual organizational resource constraints, there are obstacles to leadership that leaders bring on themselves. In Table 6 a number of these obstacles to leadership are presented and should be viewed as factors that can and should be avoided.

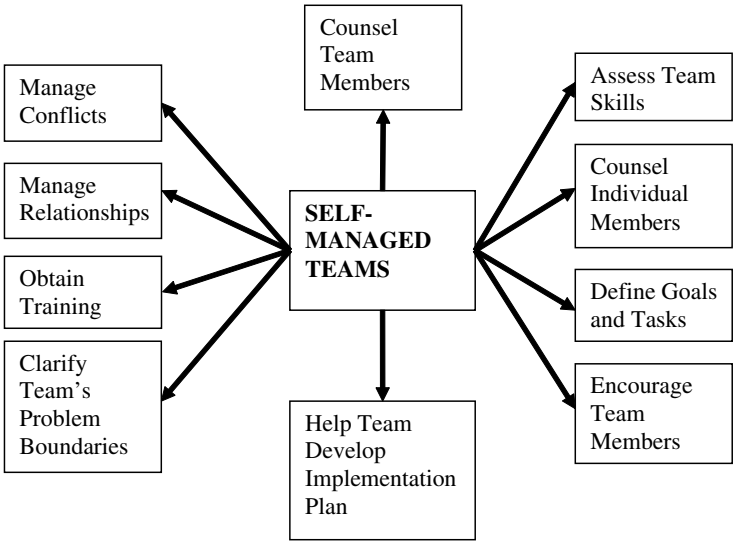

Figure 2. Leadership roles of self-managed teams

Table 6. Obstacles to leadership

Leadership obstacle	Explanation
Insisting on Quick Results	Relying on quick responses and solutions does not allow for learning or actual problem solving. In many cases it is a band-aid approach that leads to failure in the longer-term. Implementing lean supply chain principles is a long-term program that may not generate quick results. Indeed, there usually are conversion costs in the introduction of any new program, particularly one that is as comprehensive as a lean supply chain. Leaders should not expect quick results, plan for those kinds of results, or seek to force compliance with quick results expectations.
Relying on Simple Solutions	This involves falling back on old or simple solutions that no longer fit contemporary problems that are more complex. Lean supply chains are complex, interrelated, and highly integrated. Leaders should expect to look at a supply chain as a complex system requiring complex solutions. Moreover, they should understand the application of even fairly simple lean principles will have ramifications that will ripple through the supply chain. It is impossible to anticipate all of the impacts; good leaders understand this.

Table 6. (Continued)

Leadership obstacle	Explanation
Inflexibility	Organizations and leaders that lack the capacity to be flexible will not be able to handle change when it is required. Using SOPs to handle new and differing lean supply chain problems that are not covered by older polices or procedures will not solve problems. It can result in confusion, distrust, and a loss of perceived leadership authority. Moreover, lean supply chain principles are focused upon flexibility, so this obstacle runs directly in opposition to effective lean supply chain management.
Ignorance of Research	Organizations could fail to find and understand available leadership research. Firms often experience and do not solve problems because they fail to start the solution process by exploring findings and academic research. Many leaders fail to learn new concepts and tools that could resolve leadership problems, because they do not utilize existing literature. For the remainder of this chapter, and in all of the following chapters, research and journal articles abound on lean supply chain management and offer ready-made solutions to many present problems supply chain managers face.
Lack of Leadership	If the executive management team does not support lean, it will not work. If the mid-level corporate management team, plant manager, general manager, plant production manager, plant production supervisor, or plant line supervisors do not support lean, it will not work. Managers, particularly supply chain managers, must support the internal and external operations of a production facility or lean will not work.

Lean Supply Chain Leadership Topics

What follows in this section of the chapter is a listing of lean supply chain topics dealing with leadership issues. The leadership issues are topically covered to focus as aids supporting the lean supply chain management principles discussed in Chapter 3. The research and articles that are discussed here offer current strategies and ideas that can serve to implement lean supply chain management principles, overcome difficulties, and provide practical information on how lean supply chains can be successfully operated.

Importance of Leadership

In the implementation of lean principles within supply chains, there will exist two phases of decision making effort: an initiation phase and an implementation phase. In Found and Harvey (2007) two questions are answered: (1) does leadership style influence successful and sustainable implementation of lean, and (2) does the role of leadership change during an initiation (i.e., decision making phase) and implementation (i.e., decision implementing phase) of lean? Based upon the research presented in the article, there is a difference between the factors that enable a successful change and those that enable a sustainable, lean change. While effective leadership and senior management commitment are vital, successful change depends upon leaders who justify change, communicate a clear and unambiguous reason for change, and convince people of the need to change. Sustainable change requires leaders who "walk the talk" and utilize key performance indicators to measure and monitor progress. "Walking the talk" is a reverse visual management approach that helps employees at the shop floor level see a clear demonstration of lean values from their managers. In lean, effective key performance measures are those that are related to process improvement, as well as performance or financial measures. Found and Harvey (2007) go on to report that the roles of leaders change during the implementation of a lean transformation. During the lean initiation decision-making phase when lean changes are begun, leaders have to provide the vision, guidance, and resources to justify to employees the need for change and to accept the reasons for change. This calls for strategic or transformational leadership where goals and policies are clearly defined about the lean implementation. Once these lean goals of change have been defined, they can be deployed throughout the organization. During this process, the leadership is dispersed as groups and teams take responsibility for objectives. This phase of the implementation is the decision-taking phase and is best met by dispersed or adaptive leadership that can take responsibility for the incremental continuous improvement characteristic of lean.

Strong Leadership

Cappello (2006) argues that wherever lean principles are applied, they must be enforced by strong leadership. It is, "…a battle not only for minds, but for hearts as well." When lean principles are applied, managers must convince employees (and supply chain partners) that lean is not just a short-term campaign, but a program that is characterized as a long-term proposition. This requires determined, day-in-and-day-out promotion and selling efforts to continually remind, educate, and enforce lean policies. Part of that selling process may be showing kindly enthusiasm

for lean. Nevertheless, a greater part of leading lean in supply chains should be accomplished by actually leading employees through the transformational process that converts a supply chain into a lean supply chain. Providing leadership, allaying fears about changes to lean thinking, and guiding employees to overcome problems is what strong leadership can do to help implement lean supply chains.

Leading with Lean Certification

Regardless of the amount or quality of in-house lean education programs, it may not be sufficient for the amount of encouragement leaders need to demonstrate in order to motivate employees to think lean or to embrace and successfully implement lean principles in service operations and supply chains. The vice president of leadership and organization development of Esterline, a Bellevue, Washington-based firm believed the best way to lead their lean revolution was by having senior staff members become lean certified ("Lean Directions…", 2007). The *Society of Manufacturing Engineers* (SMEs) offers lean certification that assists senior staff and subordinates learn and value lean principles. They in turn help to transfer and champion that knowledge to others to keep staff current with lean thinking and practices.

Leadership Training

As Li (2008) observes, lean principles and lean policies are not only about eliminating waste, but also about human behavior, culture, teamwork, leadership, and executive force. At one Shanghai, Chinese manufacturing plant, shop floor employees, executives, and the logistics department adopted and advanced lean principles through a carefully created plan of human resource management. It was suggested that human resource management can help accelerate a successful lean transformation by:

- Developing teams as a supporting structure for lean learning and implementation
- Communicating among members, particularly across organizational barriers and between supply chain partners
- Clarifying roles and responsibilities in lean transformation

The application of lean in this Shanghai facility has some interesting lessons for learning. At a shop floor level, the firm set up lean teams and appointed a leader. Basic training and leadership workshops followed. Some operators from the

low-level processes were promoted to fill permanent lean positions, which gave them greater responsibilities and ownership of new tasks. The spirit of the company shifted immediately as a result of these simple changes. This spirit instilled willingness of employees to work harder and in a different manner when required. Seeing these changes motivated and led other employees to embrace lean principles. This led the organization to focus on leadership, cooperation, shared mindset, readiness for change and improvement, and human resource management tasks. Using human resource management personnel to train employees in leadership supported lean implementation and turned a failing company into a successful operation in this Shanghai facility.

Leadership Advice from a Lean Consultant

In an open forum for lean experts (http://forums.industryweek.com/showthread.php?t=1546), Elliott Butch (Senior Corporate Manager for Global Business Development for Commercial Vehicle Group, New Albany, Ohio, www.cvgrp.com, butch.elliott@cvgrp.com) suggested a leadership role for the implementation of lean the Toyota way. What he suggested is a plan to train management to be proficient in the Total Philosophy of the Toyota Production System (TPS). Success cases for lean are characterized by management teams that are required to learn, do and teach all the TPS foundational philosophies, including 5S, pull production, standardized work, mutual trust and understanding, in problem solving to identify the root causes and to implement countermeasures to eliminate the problem (e.g., Plan-Do-Check-Act), cellular manufacturing, elimination of waste, quick changeover, and TPM. They require managers to teach lean to subordinates and continue to mentor them so they can teach team members. Beyond that they should implement and track lean performance metrics against expectations to identify opportunities for improvement. The managers should encourage employees to form teams to solve problems and execute solutions. They should be allowed to develop new ideas for process design and other production activities and to implement them. Leading by example and applying lean education will result in an improvement in morale and productivity increase. As Elliott Butch suggests, “Reap the rewards of mining the gold and diamonds of ideas that lay hidden in the minds of the hourly workers.”

Summary

The evolution of lean supply chain management does not take place in a vacuum. It requires a substantial and sustained leadership role of managers who understand lean and supply chains, and want to reap the benefits of a lean supply chain.

In this chapter the subject of leadership has been presented. Leadership subjects including traits of successful leaders, leadership styles and skills, coaching leadership, teams, and obstacles to leadership were presented. This chapter also presented a series of lean supply chain leadership topics. These topical subjects included the importance of leadership, the use of strong leadership, how lean certification can be used to lead lean supply chains, the importance and use of leadership training, and leadership advice from a lean consultant.

Leading a firm to adopt and appreciate lean supply chains and what they mean in terms of achieving a firm's goals is an important task. One of fundamental principles of lean supply chain management is to focus on the customer and add value for business success. In the next chapter we discuss strategic customer focus and the value added focus in lean supply chains.

♦ Review Terms

Coaching
Lead
Leader
Leadership
Leadership Skills
Leadership Styles
Leadership Traits
Self-Managed Teams (SMTs)
Society of Manufacturing Engineers (SMEs)
Team

♦ Discussion Questions

1. How is a manager a leader and not a leader?
2. What traits are expected of a successful leader?
3. How does a "belief structure" impact leadership?
4. How does "sensitivity" impact leadership?
5. What is "dominance" leadership and how is it useful?
6. How does a leadership style impact what a leader does?
7. What is the leadership skill of "cultural flexibility"?
8. What communications skills are expected of a leader?
9. What is "coaching leadership"?
10. How do teams help to lead a lean supply chain effort?
11. What characteristics are expected in effective teams?
12. What obstacles to leadership can lead to poor lean supply chain performance?
13. Why is strong leadership needed for introduction and use of lean?

14. How can lean certification help implement lean?
15. Why is leadership training needed in lean supply chains?

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