The Effect of Leadership Styles on Continuous Improvement Teams

Paul W. Murray

Abstract—This research explorers the relationship between leadership style and continuous improvement (CI) teams. CI teams have several features that are not always found in other types of teams, including multi-functional members, short time period for performance, positive and actionable results, and exposure to senior leadership. There is no one best style of leadership for these teams. Instead, it is important to select the best leadership style for the situation. The leader must have the flexibility to change styles and the skill to use the chosen style effectively in order to ensure the team's success.

Keywords—Leadership style, Lean Manufacturing, Teams, Cross-functional.

I. INTRODUCTION

THIS research establishes the effects of leadership styles on continuous improvement (CI) teams. The thesis is that some styles of leadership contribute to the success of a team, while other styles detract from it. CI teams are different from other types of group interaction within an organization because they are made up of cross-functional members, are normally short term, and are expected to produce some type of improvement rather than performing a routine task. This team environment puts people together who normally do not work together, have different backgrounds, and different knowledge levels.

CI Teams are used in almost every type of organization, and while CI originated in manufacturing, it is also being used in other areas such as service organizations [1] and even music schools [2].This study will focus on continuous improvement teams in manufacturing environments. The literature review in the next section defines the three topic areas: continuous improvement, teams, and leadership. The discussion brings these three topics together and explores relationships between them. The concluding section will summarize the findings and conclude the report.

II. LITERATURE REVIEW

A. Continuous Improvement (CI)

Efforts to incrementally and continuously improve quality in manufacturing organizations are referred to by several common and interchangeable titles. Some of the more common include "Total Quality Management", "Lean Manufacturing", and "Continuous Quality Improvement". For the purposes of this research, the term "Continuous

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Improvement" or "CI" is used. CI can be traced back to the nineteenth century at Proctor & Gamble, but Evans [1] clarifies that is was executed as a competitive strategy in post WWII Japan under the teachings of Dr. Joseph Juran and Dr. W. Edwards Deming. In general, CI is based on an organization's propensity for incremental improvements of its processes [3].

CI is based on the principles of customer focus, employee engagement, and continuous improvement [1]. While these three principles are simple concepts, managing a business according to them can be a challenge. The first principle, customer focus, relates to the criteria used for making decisions and has limited effect on the relation of team leaders and CI team performance. The second two, however, are the primary drivers behind CI teams. That is, the organization engages its employees to make incremental and continuous improvements in its products. Organizations often use CI efforts to attempt to solve complex, chronic, or systematic problems. Despite their efforts, CI, and the tools related to it are new to North America and the results of it are not always we good as was anticipated [4].

B.Teams

This section explains the history of teams and several different influences that can affect a CI team.

1. History of Teams

The concept of using teams to accomplish a common goal appears to be new, but of course, it is not new. Robbins and Finley [15] remind us that teamwork began thousands of years ago for hunting and gathering food. This concept of a democratic effort through teamwork was put aside with the advent of the industrial age. Scientific management, propounded by Frederick Taylor, brought in the concept of a hierarchy where bosses made decisions and workers followed instructions [5].The bureaucratic style was reinforced by systems established after WWII, and excelled through the 1960's [5].

America's post war prosperity and its bureaucratic style began facing a challenge led by the Japanese with their team-based manufacturing. American companies' successes had allowed them to grow very large and wasteful. The Japanese, meanwhile, were building much more efficient manufacturing methods, largely based on teamwork. When faced with this new highly efficient competition, the American companies could not compete [5]. By the late 1970's America had lost its leadership role in many industries.

America began to recognize the benefits of the team approach over the hierarchy approach. American experts who

had helped the Japanese develop their team-based systems were now called on to help American industry. Evans [1] reminds us of Dr. Deming's famous statement in a 1980 television broadcast "If Japan can…why can't we."

2. Team Development

People have an inherent internal conflict when it comes to participating in teams. One motivator is that people are inherently selfish [6].Their natural tendency driven by this motivator is to withhold their cooperation from others. Fortunately, this selfish motivator is offset by success that they have experienced by participating in groups [6].When teams do form, the successful ones go through a natural progression of forming, storming, norming, performing, and adjourning [7], but guiding them through each of these stages requires a skilled leader [6]. At times, leaders find it necessary to change their own styles to aid the development of the team [8].

3. Cross-Functional Teams

The challenges experienced with all teams is further complicated in CI teams. The CI efforts in manufacturing environments are usually cross-functional, because of this, teams with inter-disciplinary skills are necessary [1]. These cross-functional teams are able to function best in an organic type of organizational structure [3]. The flatness of this type of structure allows better communication between senior management and team members. In addition, organic structures naturally have multifunctional employees making them more likely to assimilate new concepts [3].

4. Knowledge Differences within Teams

Some teams are made up of members who have very similar skills, knowledge, and experience. They sometimes work together for long periods on common goals [5]. With the short time period and cross-functional nature of CI teams; however, members are expected to transform their specialized knowledge and skills into cogenerated solutions; this is a critical problem that these teams face [9]. Majchrzak [9] suggests that the teams sometimes can avoid the lengthy process of traversing these knowledge gaps by creating intermediate scaffolds of understanding to allow them to transcend the knowledge differences.

5. Organizational Structure

Organizational structures are generally classified as mechanistic or organic [7]. Within these classifications are three common sub-dimensions known as flatness, centralization, and employee multi-functionality [3]. These three sub-dimensions are very relevant to CI teams. An organic structure is expected to be best suited to CI teams due to features within the three sub-dimensions. In a flat organization, the leaders have close contact with lower levels; this creates a familiarity within the organization for people at different levels working together. Employees in a decentralized organization are familiar with decisions being made throughout the organization. Lastly, employee multi-

functionality found in organic organizations is well suited to CI teamwork [3].

C. Leadership

This section defines leadership as it relates to teams. Several leadership styles, traits, and influencers are examined to determine their potentials to impact team performance.

1. What is Leadership

Business Dictionary defines leadership as "the activity of leading a group," with activities including "balancing the conflicting interests of all members." In the cross-functional environment of a CI team, the different backgrounds of the team members can lead to conflicting priorities. It is the team leader's task to persuade the team members to support the common goals of the team [6]. There are several different ways that a leader can accomplish the task of uniting and focusing the team. At one extreme, a Laissez-Faire leader takes an inactive role and allows the team to evolve and perform according to its own motivations [10]. A transactional leader focuses on exchanging performance for rewards and sets specific goals and expectations [10]. A third type of leader, the transformational leader, leads the team through inspiration [10]. One of the skills that leaders exhibit is the ability to ask good questions [11]. Many leaders, however, are inhibited from asking questions due to a lack of trust [11].

2. Fiedler's Contingency Theory

The basic premise of Fiedler's contingency theory is that team performance depends on the "interaction of leadership styles and situations favorable to the leader" [12]. This theory contends that there are two basic types of leadership styles; those oriented towards tasks and those oriented towards relationships. Different situations can make either of these leadership styles more effective [12]. In CI team environments, the situation is often not favorable for the leader. Selecting team members from different parts of the organization can result in weak leader-member relations and possibly a poor position power for the leader. The purpose of the CI team may be poorly defined or not well understood, resulting in a poor task structure for the team. The combined weakness in these three factors makes the situation unfavorable for the leader.

3. Participative Leader

A participative leader is one that involves subordinates in making and implementing decisions, this is critical for connecting organic structures with CI [3].However, this type of leadership is endorsed differently in different cultures. In cultures where it is not endorsed, the organization must provide an internal endorsement to allow it to be effective [3].Therefore, if the team is ready for participative leadership, it can be very effective. However, if this style is not endorsed by either their culture or their organization, the team will not accept it.

4. Transactional Leader

Transactional leaders use exchanges to motivate their teams. They offer rewards and punishments to their employees to motivate them to perform the desired tasks [13]. This style of leadership is most suitable to mechanistic organizational structures where decision making is centralized and employees are specialized [7]. CI teams, however, are more of an organic structure with decentralized decision making and multifunctional team members [1]. This would make a transactional leadership style a poor match for a CI team.

5. Transformational Leader

Transformational leaders use intrinsic techniques to motivate their teams. They inspire team members through intellectual stimulation, charisma, inspirational motivation, and individualized considerations [13]. Rather than coercing the team, as a transactional leader would do, the transformation leader changes the beliefs and attitudes of the team members [7]. This type of leadership suits the organic organizational structure that characterized CI teams. This style of leadership has proven to be more effective than transactional leadership for this type of team [13].

6. Virtual Leader

New communication technologies have made it possible for teams to be comprised of members who work remotely from each other, and the leader of this type of team is sometimes referred to as a virtual leader [13]. Studies as of 2002 had found little evidence that supported the effectiveness of advanced communication in improving leadership performance [13]. Teams were still struggling in 2011 with the challenges faced by virtual teams [14]. Progress had been made, however, on things that leaders can do to mitigate the challenges of a virtual team environment; being able to adapt strategies that were successful with traditional teams is important for success as a virtual leader [14].

7. Age, Sex, & Cultural Differences

There have been several studies on the effects of age, sex, and culture on leadership and team performance. A study by Kearney [17] found that while transformational leadership is generally better suited to team performance, a transactional style is sometime better when the leader is similar in age and experience to the rest of the team. Zenger and Folkman [18] found that women leaders are more effective, and Mitki and Shani [19] found cultural differences that effected teams. These various influences may be considered by an organization when selecting team leaders.

III. DISCUSSION

There are many things that can causes a team to fail including lack of clear objectives, unresolved roles, and difficult team members, but one of the surest causes is poor leadership [5]. When there is insufficient guidance, teams lose motivation and resort to a mechanical rather than creative approach to their tasks [5]. In their article on Leadership and Team Performance, Curphy and Hogan [6] tell us very specifically, "leadership style predicts team, unit, or organization performance." They further explain that two leadership traits – getting along, and getting ahead – are fundamental necessities for leading a successful team. This concept is expanded to the team level, concluding that a team that desires to cooperate and to accomplish goals will be successful [6]. Testing the inverse of this hypothesis gives it some level of creditability: a team that will not cooperate and does not want to accomplish anything will surely not be a high performing team. When compared to other studies, however, Curphy and Hogan's theory appears to be over-simplified.

A CI team is a complex group structure. The leader and its members must contend with unfamiliar members, knowledge, and experiential differences. The problem or situation that the team is tasked to address may be very complex and poorly identified, and the overall situation may be unfavorable for the leader. There is little doubt that "implementation of the (CI) strategy and philosophy might be one of the most complex activities that a company can attempt" [4]. Succeeding in this environment takes a skillful and flexible leader.

Characteristics of a successful team leader include positive attitude, flexibility, willingness to listen, and most importantly, sensitivity [16]. The leader must understand the dynamics involved in a cross-functional team and be able to respond to them in a positive way. These descriptions all point toward transactional leadership as being the best style for CI teams. However, here are some circumstances when different styles would be more appropriate. For example, Kearney [17] discovered that a leader who has little legitimate power would be more successful using a transactional leadership style. Conversely, he also demonstrated that when there is a large age difference between the leader (older) and team (younger), there would be a direct relationship between the level of transformational leadership and team performance. Kearney's findings are in agreement with Fiedler's contingency theory, that is, the leadership style needs to suit the situation.

One of the challenges that a CI team faces is the short time period of existence. They are assembled to accomplish a specific task and then disband. During this period, the team must progress through the normal team stages of forming, storming, norming, performing, and adjourning [7]. If the team is not adequately prepared and guided through these stages, it is destined for failure [1].

IV. CONCLUDING THOUGHTS

The fact that an organization has CI teams is an indicator that the organization is interested in engaging its employees to make improvements. The CI methodology is relatively new to North America, so organizations that are using it are early adopters, progressive in their management approach, and understand the advantages of an organic organizational structure. However, it is also likely that these organizations were developed during America's manufacturing post-war boom period and still have much of their hierarchy and mechanistic organizational structure in place. They are using CI, but it is not yet a way of life for the organization. This transitional stage of the organization, between its mechanistic

heritage and its organic vision can lead to conflicting messages from management to the teams.

In addition to the confusion caused by the organization in transition, CI teams also have to deal with the challenges related to a cross-functional, temporary group. Good leadership is important for the success of any team, but it is especially true for CI teams. The leader of a CI team must be able to guide the team through their challenges and help them succeed. In addition, the leader must give this guidance in a very timely manner since CI activities are often based on short-term projects. A successful CI leader must be both flexible and task driven.

The team leader must be able to maximize the potential benefits of leading in a transactional manner. However, he or she must also recognize situations where a different style of leadership is necessary. The benefits of transactional leadership will never be realized if the team does not survive the initial forming and storming stages. The leader must also recognize outside influences, such as age, sex, or cultural differences, that may make one form of leadership desirable of another. Deciding how to lead and executing the necessary style effectively is therefore crucial to the success of a CI team.

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