
The Strategic Role of Leadership in Six Sigma Methodology “Lead the Change”

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Abstract

The purpose of this article is to provide an in depth analysis about the strategic role of Leadership in Six Sigma methodology to lead the change. This paper will explore the categories of that involvement and how it leads to either the success or failure of the projects as well as the organization. Countless literature articles have discussed how imperative it is to have Top Management support; however, the focus of this paper is to analyze the depth of the involvement and what the involvement translates to in the follow categories: Strategic Alignment, Organizational Culture and Financial Resources.

Keywords

Strategic Management, Leadership, Quality, Six Sigma

Introduction

Six Sigma is a popular tool and a systematic business strategy that increases profitability by focusing on the quality of the finished product and reducing the number of defects (reduce to 3.4 parts per million opportunities). In short, Six Sigma aims to increase the efficiency of various processes so that the company can see their profitability increase through reducing waste, redundancy and costs. With the continuous growing global market, technological advancements, and the digitalization of data, it's imperative that companies consider strategic process improvement methods to increase their chance of survival in the market place. This concept is a necessary strategy for staying competitive in today's industry; an ever-changing environment, market, and industry. Many of the companies that have embraced Six Sigma methodologies, seeking to improve their operations, have reported significant benefits and gains. (Baumbusch et al. 2003). Companies such as, Motorola and GE were successful in implementing the Six Sigma into their methods. Both these companies were pioneers in the field seeing significant results from Six Sigma. The original goal of the manufacturing industry was to focus on the manufacturing process. However, over the last several decades the focus has shifted to include various other industries. There are several key critical success factors that are necessary for the successful implementation of any process improvement initiatives. The critical success factors that has the greatest amount of influence on successful business strategy implementation is the amount of Top Management support and involvement. The level of success in implementing change is directly related to Top Management influence, as their leadership sets the tone and is significant in the direction of a company towards an organization's goals and vision or mission. Marzagao et al (2016) speaks of this influence by pointing to “the performance of the company's leadership as support and strategic alignment by creating a system of roles that allow real autonomy in changes of process”. Having the right foundation through management's alignment of process improvements, along with the company's strategy, will ultimately set the tone for sustained success. If the foundation is not thoroughly planned out first, the other objectives (tactical and operational) will not be met. Thus as a result, the overall process will crumble and the performance initiatives will fail. Six Sigma has been proven to be a successful business strategy if properly implemented, but it will take time to bear the fruits from the investments by senior level management.

Background

Six Sigma methodology incorporates very important, powerful tools for solving business problems and fruitful in improving organization process. The rewards from a successful Six Sigma implementation include: breakthroughs in quality improvements, cost savings, defect reduction, greater customer satisfaction, and increased productivity and efficiency. To reap these rewards, organizations must focus more attention on the key factors that drives Six Sigma. These key factors for Six Sigma will be discussed in greater detail throughout this paper.

This begs the question: how does Top-Level Management drive this process improvement strategy? Also, which categories can leadership have the greatest impact in successful implementation and sustaining the “change”? There are several critical success factors (CSF) that are crucial for successful implementation and positive results; strategic alignment, project management, training, etc. (Naslund, 2013). At the backbone of these critical success factors is that senior management's support, approval and commitment have the greatest impact on a company's overall improved processes and sustainability. Senior management plays a vital role in the following categories of implementation: Strategic Alignment, Organizational Culture and Resources including Financial and Educational. This paper aims to emphasize the role and necessary influence of Top Management towards these categories in order to improve processes and sustain success within a company.

The methodology in conducting this research will be a literary review of published articles that focus on top management support in Six Sigma. Successfully adopting process improvement methodologies like Six Sigma can help increase value to the customer by continually working towards the best practice for the most cost effective and efficient processes. Six Sigma is not a one-time only process that guarantees quality; in fact, it is continuous movement towards achieving perfection and quality (Anthony & Coronado 2002). We conducted a literature review to see if there is consensus among researchers on the various critical success factors and the importance of top leadership support in Six Sigma projects. In addition, feedback obtained in a survey sent to key leaders in a large healthcare organization was collected to determine the level of significance in regards to Top Management involvement and what it entails in the sustained success of the organization.

Problem Statement

Strategic alignment is one of the most imperative critical success factors to producing sustained results. With the right strategic alignment, projects will stay on time and under budget, have the proper amount of resources, will experience decreased resistance from others, and productivity might be less impacted (Bisk, 2017). Senior management leaders of a company need to continue to promote the long-term goals and create initiatives to get all employees to “buy-in” into the new methodologies of process improvement. An evaluation of the project with milestones and measurements will aid in employee engagement and continued support. Employee participation is important since all need to be involved, as they will be driving force to continue the process for the changed methods (Naslund, 2013). It's necessary for management to spark that engagement and integrate it by creating a culture for success for the employees to fully participate and instill within the employees a sense of self-responsibility when embracing the project. Project Management is necessary for successfully changing and integrating the methodologies into the organization's everyday culture. It is critical to select and create a team of members representing all involved departments with valuable experience within their respective functional areas. A leader must be selected within the group to keep the team organized and focused on the issues at hand. It's imperative for the leader to train, motivate, and continue to provide the team with the necessary tools and measurements that will provide the foundation to either support the improvement project or reject it (in such case the company may decide on the need to go in another direction). The leader needs to be prepared for the unexpected to continue to drive forward (Bisk, 2017). Each of these critical support factors have a common denominator: strong, involved leadership. Without Top Management orchestrating the details and structure of these critical success factors, they will not succeed.

At some point senior management must ask the question: Once the management consultants have come and gone, will the methodology be sustained into the organization's everyday culture? The answer lies in the actions and decisions of Top Management and their execution of the change initiative. This paper correlates the significance of top management decisions to the success and sustainment of the change initiative. The categories that are most influential and necessary for success are detailed in the following paragraphs.

Strategic Alignment: Sustainability, Creating Value and Setting Priorities

The decision of Top Management to execute the change Initiative, must first take the time to ensure that the strategy aligns with the vision and goals of the organization. Don't miss this step! No successful business strategy has been able to survive and continually produce positive results without this alignment. The majority of companies that have tried to implement Six Sigma fail. Recent studies, for example, suggest that nearly 60% of all corporate Six Sigma initiatives fail to yield the desired results (Chakravorty, 2010). A big contributor to such a large fail rate, is that Six Sigma was not the correct process improvement model that fit that company's strategic initiative. Senior level managers may have incorrectly chosen Six Sigma because either it is the “popular fad” at the time, they recently read material on the process, or just because they have seen other companies have success with it.

The first step in applying and implementing any business strategy, including Six Sigma, is to ensure that its

strategy reflects the organization's goals and vision. Top management must lead a Six Sigma initiative to achieve future business success (Ward & Poling, 2005). Top management must be deliberate when setting priorities to deliver the Six Sigma strategy to all employees. If management is taking shortcuts and not properly addressing all the CSF's of Six Sigma there will be shortcomings in the results and decreases sustainability. Once an organization's leadership understands what is required of them, they can select certain processes and strategies that are connected to the organization's goals and begin to trickle down the process methodologies to all employees (Ward & Poling, 2005). Many of the process improvement strategies are implemented without a clear understanding or direction of the company's goals and strategy. As a result of unclear company direction, management may just choose whichever process they seem worthy or popular at the time. If in fact Six Sigma is the correct choice for a company's strategy, then all levels of management must continue to create value in the process by showing its importance. Top management can sell the project with visible enthusiasm, provide the necessary human and material resources to the project, and exhibit political power to support the project (Young & Jordan, 2008). Top management must convincingly convey the need of the strategically focused change initiative to the organization, the system, and the relationships among stakeholders (Boonstra, 2012). Communicating the message clearly and concisely is an important strategy when creating value and showing the importance of the process. Megan Denk, Executive Director of The Players Center for Child Health at Wolfson Children's Hospital, put it candidly, "When strategy and vision are effectively communicated, employees have an easier time aligning with change." Management's knowledge and expertise of the process is necessary to point out as well. Top management must have a sufficient understanding of the project management aspect for the strategic process as well as the content, context and implications of the proposed system (Boonstra, 2012). Management needs to be involved in all stages of the process; the beginning, the planning, the implementation and the follow up or maintenance stage. Typically failures come about as a result of leadership losing interest during one of the stages mentioned above (Worley and Lawler, 2006). They must carefully select that process worthy of the undertaking. Jarret Dreicer, Assistant Administrator for Baptist Beaches, mentions the approach of his organization, "We also tend to prioritize how resources are allocated based on how each initiative affects strategic priorities like patient experience, quality, cost and team engagement."

Investment in Resources: Financial, Training, Assignment of Cross Functional Teams

Having the correct resources available is imperative to ensure that Six Sigma is implemented correctly and to ensure continuous success. Top Management is responsible for providing the company with the necessary resources and proper training. Top management secures financial, material, and human resources to support the strategic project and promote the use of the system (Boonstra, 2012). Investment in resources will send a clear message to every employee that management is committed to this new change initiative strategy. Necessary resources such as; data collection tools, training material, and proper systems are required to be in place to continuously monitor measurements and results going forward. Without these resources, certain aspects of change initiatives would be nearly impossible. It is vital that these resources are in place to measure, adjust and redirect the project. Without the necessary measurement tools and goals, it would be extremely difficult to monitor future numbers to ensure that the process is working and which areas are performing at their best. Leaders need this information to know if the process is moving in the right direction and if it should continue the same course (Chakravorty, 2010).

Mr. Dreicer mentions, that Senior Leadership in his organization is intimately involved in investing financial and education resources amongst the organization. They do this in a strategic way so that it aligns back to the mission and goals of Baptist Health. (J. Dreicer, 2017) Top Management needs to be willing to invest in efficiently utilizing its resources to ensure the change initiative is successful. This is a significant investment upfront and one many companies are unwilling to make. However, having the foundation at the start with properly trained employees will ensure the staff has the right tools to be successful moving forward. As one article suggested, all employees should be trained on using statistical tools and techniques of Six-Sigma quality (Mehrerji, 2011). Employees will prove to be immensely valuable resources for management to use. This is achieved through properly training the employees on all necessary job required skills, so employees are capable of delivering superior results the company desires. An example of this concept comes from one of our survey respondents. Matt Myers, Director of Operational Performance Improvement for Baptist Health. Meyers states, "Mr. Wilbanks, Baptist Health COO, invested in the OPI department back in 2007, ten years ago. We have six full time employees dedicated to change initiatives but we could use many more. Since that time, we have educated close to 200 Baptist Team members as Six Sigma green and yellow belts." For Six Sigma to be successful, management must take the time to thoroughly focus on equipping and training the right employees. This is a crucial concept that is overlooked by many companies, but is necessary for key performers to carry

out the process.

Six Sigma project management comprises of individuals that are categorized as “Belts” and “Champions”. It is very important to select the “Belts” based on their skills as leaders because having the wrong leader can have disastrous consequences. One of the obstacles of Six Sigma implementation is the difficulty in execution of projects due to improper placement of employees with interpersonal skills to lead projects. These individuals typically have the technical skills required but lack the management skills that are vital for success. The project performance is affected by the incapacity of a “Belt” in dealing with management issues. However, such skills can be provided to the “Belts” with extensive training and empowerment programs so that they have a domain of knowledge and tools to be used in process improvement projects, in addition to the technical skills required for successful implementation of the projects. The coaching, guidance, and support provided by “Master Black Belts” in application of the structured Six Sigma method is necessary for success. It is imperative that the knowledge transfer activities such as training and acquisition of technical knowledge during actual project execution are successfully developed and implemented so that the “belts” and project leaders are not impaired in applying the Six Sigma method

Breaking down functional silos to create, recognize and reward cross functional management teams and their members with divergent perspective on how work gets done. For instance, Dr. Naslund mentioned in the class that engineers value precision and attention to detail while those who come from different backgrounds like marketing may prefer less rigid approach. Cross-functional collaboration can take an extra effort because of its diverse functional capabilities. Employees want to participate in cross-functional teams only when they believe that their participation will add more value which fits with organization’s goals and objectives. Top management is increasingly giving much importance to the cross functional teams in today’s ever changing fast environment. Communication between different functional groups improves relationships. Both formal exchanges and informal networking are important. (De Burca et al 2004, Lim and Reid 1992). Communications can be improved by workshops, group sessions or developing formal procedures and approaches. (Crittenden et al, 1993). One such approach can be physically bringing people together in the organization (Shapiro, 1977). Job rotation has been suggested as a meaningful way to improve knowledge sharing across functions.

Organizational Culture: Visibility, Motivation, Inspiration, Knowledge and Power

Organizational culture has been recognized as one of the major factors or challenges to implementing Six Sigma. Organization culture is viewed as the pattern of values, beliefs, and assumptions shared among the members in an organization. Six Sigma implementation includes management involvement and commitment, understanding of the Six Sigma methodology, and linking Six Sigma to business strategy. Top management’s involvement and commitment is the prime enabler for successful program implementation. Transformational leadership should help in motivating employees to attain transcendental goals rather than their own short term interests. Empowerment of people, increasing their involvement, encouraging effective communication, coupled with a reward and performance appraisal will aid in the success of Six Sigma implementation (Nayab, 2011). As a Director of Radiology at Baptist Health and a Yellow Belt holder, Kim Hurse, mentioned that the strategy of Six Sigma is to influence a culture of stewardship and accountability from all team members. (K. Hurse, 2017)

Top Management support and directly being involved could be the most important key to successfully driving this change method. The top level management can drive the organizational goals throughout the organization by directly participating and motivating. Amy Lisenby, VP of Performance Excellence at Baptist Health and Certified Master Black Belt commented about the role of Senior Leadership, “From my perspective, we are fortunate to have a very engaged Senior Leadership Team who, by their nature, provide visibility and support to projects organically, which did not require a change in culture to accomplish.” (A. Lisenby, 2017) Six Sigma could bring new rules need to be set up, new procedures need to be followed and new tools need to be learned. This can often lead to instability, confusion and resistance in the process. Leaders’ consistent involvement in Six Sigma activities enables the restructuring of business processes and then facilitates changing the culture and attitudes towards continuous improvement (Bhote, 2002). Executives at all levels need to directly participate in the improvement projects, not just “support” them. Many companies do not sustain the results they thought they had because they measurement and results were diluted by the project managers to make them seem/sound successful, the long term results showed no improvement. If the senior leaders were truly involvement they would know about the results and the demise of the project would not be a surprise (Chakravorty, 2010).

It is top management that will act as the key driver in continuous improvement projects and will communicate to employees about organizational goals, as well as establish the right environment for supporting organizational projects and employees. Top management’s visibility, consistent support and active participation are going to set the environment for employees to embrace the changes. This must be done so delicately. One of the

challenges that Mr. Myers states, “I think it is very important for them (Top Management) to be visible and supportive of helping change happen and removing any barriers. Staff needs to know top executives support them. Sometimes they can be intimidating though, and staff is afraid to say what is really happening with the process each day. So there is a delicate balance here for how much you want the top leadership directly involved. You want team members to be comfortable, being honest and working through any issues.” (M. Myers, 2017) Leadership also establishes accountabilities, expectations, roles and responsibilities as well as aligning the appropriate incentive and reward system to promote this culture for the organization. This was one of the critical success factors of GE’s success. It was the support of their then CEO, Jack Welch. Mr. Welch insured that the financial resource, as well as the support of leadership, was intact to ensure the program’s success. He also linked any advancement to the attainment of certain belt levels to ensure that the culture of Six Sigma was directly linked to performance and advancement. Having such a strong focus helped GE see 700 million in savings in the first two years (Nayab, 2011).

Top leadership plays a huge role in hiring and promoting the right leaders to help drive Six Sigma initiatives. If the improvement measure is embedded in your organizational culture this should be an easy transition for a new leader or someone coming new into the organization. When hiring for leadership positions need to seek individuals that are quick learners and individuals that embrace change. Many companies such as Southwest Airlines and Nike are putting in their employment contract that “Change” is expected and support for change is a condition of long term employment with the company (Worley and Lawler, 2006).

Paying the employee for changing tasks and taking on additional work is an effective approach. The company is recognizing them for increasing skills and adding to their expertise. This reinforces the culture that top management wants to instill; growth, personal development and change (Chakravorty, 2010). Performance appraisals will offer motivation and improve implementation results on process improvement projects. Small increases in rates will motivate team members to embrace the new method and continue the method. Without an incentive it is easy to slip back to old ways and lose sustainability (Chakravorty, 2010). The purpose of performance appraisal is to improve performance of individuals. Performance appraisals can be used as an effective tool in measuring employee’s strengths and weaknesses, meeting of targeted goals and providing training if needed. Employees are requested to put up their own performance objectives which they are then judged through these objectives by verifying whether they were satisfied or not. However, in many cases organizations top management set the standards and goals even after consulting employees. During performance appraisals, feedbacks are obtained which provide vital information on whether additional training resources are provided. Kettley (1997) says that when an individual receives feedback from different sources of the organization, the process is called 360-degree feedback or appraisal. The information obtained from appraisals can also give indication on an organization's recruitment and selection practices.

Conclusion

Six Sigma methodology can be useful and applicable throughout all aspects of a business - from customer support to management to service delivery if it is the right fit for the organization. The goal is to reduce product variation; a vital importance to business success. It is unique from other quality improvement methods as Six Sigma has:

1. Increased emphasis on strong support from management.
2. A clear focus achieving measurable and quantifiable financial returns.
3. A clear commitment to making decisions based on data and stats.

Six Sigma is only one of the many business strategies available for companies to choose from, but it’s not guaranteeing a successful outcome. Support, approval and commitment by Top Management is proven to be crucial for any business strategy to sustain success. Aligning the change initiative to the business strategy and goals, creating the organizational culture and providing the necessary resources is vital to establishing the foundation for success. That’s the key many managers tend to overlook, it’s not just about success in the moment or the next year even but sustained success for years, a nd/or decades down the road. Direct involvement and support by management is the only crucial method for successful implementation. Learning by management is ongoing, necessary process for companies in an ever-changing environment. Don’t settle because even the leaders in an industry today may be struggling tomorrow!

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