



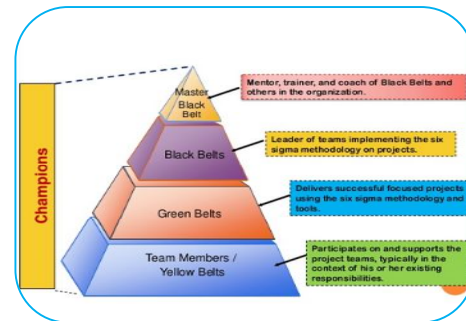
SIX SIGMA CHANGES THE ROLE OF HR PROFESSIONALS

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ABSTRACT

Since its inception at Motorola, six sigma has been widely adopted by many different types of organizations. The application of six sigma has still been the focus of study. In a world of intense competition, six sigma is considered to be an important management philosophy, supporting organizations in their efforts to obtain satisfied customers. Personnel and team that organizations select and assign to do the job as champion or sponsor is responsible to approve any conditions in the project, black belt is responsible to team leading, master black belt is responsible to coaching, audit, and training for black belt and green belt are the important basis of using this strategy because it affects the success or failure of the organization. Thus, human resource management roles are important as human resource planning, recruitment and selection, human resource development, performance appraisal, compensation and employee relations because of human performing strategy. Moreover, organizations should support the project with other resources and adjust the suitable environment to carry out this strategy in order to make the competitive advantage and success in the future. Intangible soft processes of Human Resource (HR) are possible to measure through HR six sigma, which pulls the HR function closer to strategic alignment with organizational goals. In this paper, a brief review of six sigma (6σ) is presented along with its role in HR.



KEY WORDS: - Six sigma, 6σ, DMAIC, Six sigma hierarchy, HR six sigma.

INTRODUCTION

More than a quarter of century after its inception, six sigma can be considered a mature framework for performance improvement as for maturity assessment at the organizational level. Traditionally, the six sigma framework is understood to be meant for manufacturing processes and has gained its popularity after successes at large

corporations; however, after years of propagation and practice, six sigma has been subject to a wide variety of interpretations. The variation in understanding and implementation results in differences of six sigma benefits as well as sustainability of six sigma programs. Six sigma strategy is one of the management

concepts which a lot of world-class organizations use to reduce their costs and expenses, also, aimed to create higher products and services. This concept emphasizes on giving priority to customers and quality by reducing some mistakes and errors on productions or services.



In the business world, especially in manufacturing or quality management, the term six sigma usually refers to a set of tools and methodologies developed by Motorola to improve processes by eliminating defects. But why should the HR professionals care what six sigma is or how it can be applied in the HR function? The predominant source of market value of business organizations has been shifting from tangible fixed assets to intangible assets like human capital, customer capital, brand equity etc. Intangible assets are emerging as a powerful source of sustainable competitive advantage. In the wake of emerging business realities human resource management (HRM) has become of strategic importance. The human resource (HR) function is emerging as a proactive player in managing human capital operationally and strategically. HR function with its internal functioning aligned with strategic objectives of the organization is emerging to be a strategic partner and change agent in industrially developed countries as well as in developing country like India, though at a moderate level. HR professionals in general are more frequently expected to justify their contributions to their employer and to account for their existence. This paper attempts to highlight the significance of six sigma approach in human resource management, along with its background, methodology, and organizational infrastructure.

SIX SIGMA

Six sigma is a highly disciplined process that helps us focus on developing and delivering near-perfect products and services. Why “Sigma”? Sigma σ is the letter used in statistical model to signify the standard deviation from the mean. Six sigma, in mathematical and statistical terms, is standard deviation units of process variation. The word is a statistical term that measures how far a given process deviates from perfection. The central idea behind six sigma is that if you can measure how many defects you have in a process, you can systematically figure out how to eliminate them and get as close to zero defects as possible. Six sigma is an important advance in quality management and process improvement in the last two decades. Six sigma has gained wide popularity in various types of organizations since the 1990s. Most Fortune 500 companies have adopted Six Sigma. Rich anecdotal evidences showed that Six Sigma can help firms achieve significant performance improvement.

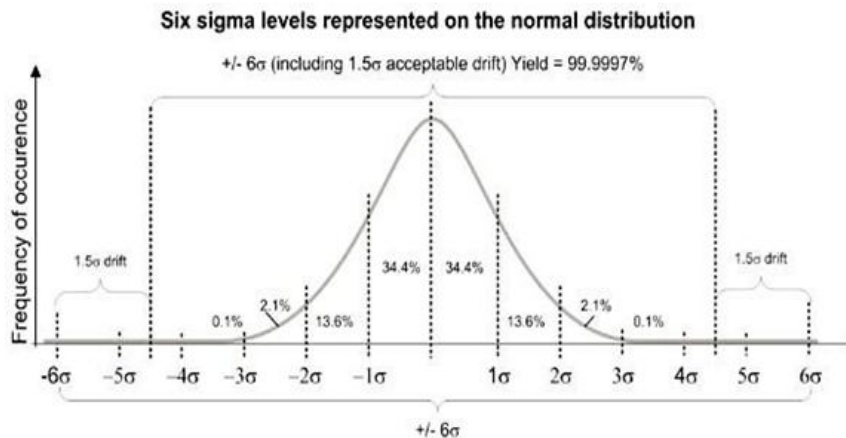


Figure 1. Six sigma levels represented on the normal distribution

Six sigma originated from Motorola Corporation in 1986, arising from the need to improve product and quality and face competitions, with customer satisfaction and business competitiveness as the objective. Thereafter the company's sales volume, profits and share prices increased. In the mid 1990s, Jack Welch at General Electric (GE) provided the best example of leadership and corporate-wide initiatives for Six Sigma. Gradually Six Sigma is not just about statistical tools, though statistical thinking is its backbone; it is not just about quality improvement, but implemented with a view to core competitiveness of a corporation. Following the remarkable success of implementation of Six Sigma at General Electric, Six Sigma was noticed, accepted and implemented by many other corporations. Today, the applications of Six Sigma have gone beyond Motorola and GE to the world, from the West to the East, from Fortune 500 multinationals to common organizations, from manufacturing to service industries such as banking and healthcare. Six Sigma has been recognized not just a way to improve quality but as a management concept and systematic approach to continuous improvement, strengthening leadership, enhancing customer satisfaction, increasing profits and business competitiveness. It not just lead to increase in revenue and profits, rather it helps to improve the thinking and behaviour of people and ultimately the culture of the company. It focuses both on top line and bottom line and provides a structural framework wherein quality becomes a measurable item.

In other words, six sigma is a method of problem solving. Using six sigma reduces the amount of defective products manufactured or services provided, resulting in increased revenue and greater customer satisfaction. Basically, six sigma reduces variation, so products and services can be delivered as expected reliably.

KEY CONCEPTS OF SIX SIGMA:

At its core, six sigma revolves around a few key concepts.

1. Critical to quality, i.e., attributes that are most important to customers.
2. Defect, i.e., failure to deliver what the customers want.
3. Process capability, i.e., what your process can deliver.
4. Variation, i.e., what the customer sees and feels.
5. Stable operations, i.e., ensuring consistent, predictable processes to improve what the customer sees and feels.
6. Design, i.e., designing to meet customer needs and process capability.

METHODOLOGY OF SIX SIGMA:

The acronym DMAIC (design, measure, analyze, improve, and control) describes the methodology of six sigma.

1. Define- In the first step, the problem is defined.
2. Measure- In this phase, magnitude of the problem is measured.
3. Analyze- The process which is involved is analyzed thoroughly.
4. Improve- The process involved is improved to reduce time and cost.
5. Control- This phase of six sigma makes sure that the problem does not recur.

ORGANIZATIONAL INFRASTRUCTURE FOR SIX SIGMA:

A successful model of organizational structure in deploying six sigma is to implement various levels of expertise. Six sigma's hierarchy of expertise is based on the belt system, which has been credited for fostering a culture of quality in which the ownership of quality is viewed as the responsibility of entire organization. The belt system is divided into five levels as described below:

- Champions are fully trained business leaders who promote and lead the deployment of six sigma in significant area of the business;
- Master black belts are fully trained quality leaders responsible for six sigma strategy, training, Mentoring, deployment and results;
- Black belts are fully trained six sigma experts who lead improvement teams, who work projects across the business and mentor green belts;
- Green belts are full time teachers with quantitative skills as well as teaching and leadership ability; they are fully trained quality leaders responsible for six sigma strategy, training, mentoring, deployment, and results; and
- Team members are individuals who support specific projects in their area.

PRECAUTIONS IN USING SIX SIGMA:

Successful application of six sigma requires the following precautions:

1. Top management commitment to six sigma is essential to make it a part of the company's culture.
2. Move people across projects to widen their knowledge and skills.
3. Select the right projects for six sigma. The projects must have a significant impact on the company's business.
4. Full commitment of everybody for defect free work is necessary.
5. Align TQM, balanced scorecard and other quality tools to six sigma.
6. Six sigma is not a quick fix. It takes time to penetrate and its result(s) materialize over time

SIX SIGMA & HUMAN RESOURCES

One distinctive feature of six sigma is the use of several unique human resources practices, particularly the use of full time improvement specialists, i.e., champions, master black belts, black belts, and so on, as seen in organizational infrastructure of six sigma. Like any major organizational initiative, many factors contribute to the success of six sigma and fall within HR's area of responsibility. No doubt, Human Resource (HR) department plays a pivotal role in the successful execution of six sigma projects. But when this comes to applying six sigma to HR functions, the answer is not encouraging. Some questions rose in this issue were 'how can HR be measured?', 'how can you apply 3.4 defects per million opportunities (DPMO) rule to HR when no organization would have a million employees?'

But this perception that six sigma cannot be applied to HR processes is not shared by all. "Applying six sigma to HR is no different than applying it anywhere else in the organization", says Jackie Nelson, HR master black belt for GE Consumer Finance, America. "The key is, 'What are the gaps?' Once you understand what the problem is, it's like a mathematical problem you apply the right problem to solve." So the real problem lies in perception of an individual HR professional. If HR wants to remain in the supporting role in six sigma projects of other functions of the organization or take up some projects for its own domain, it is for the HR professionals to take the call. Thus, we can say that, implementing Six Sigma in HR is no different than applying it in other functions. The key is recognizing gaps or opportunities for improvement by breaking down processes in manageable chunks.

FIVE C'S FOR SUCCESSFUL IMPLEMENTATION OF SIX SIGMA IN HUMAN RESOURCE MANAGEMENT

The HR function need to follow these five Cs to implement Six Sigma in HR or to facilitate implementation of Six Sigma in the organization:

- Change- One can't expect six sigma to work in a place where every other employee is going to stand up and create resistance saying that "Why should we change the way we work?" or "but it's always been done like that here!" This is why change has to be initiated, managed and monitored by the top management.
- Communication- There should be a clear way of communication between the department and from top level to bottom level management in an organization. If there is no communication gap, there is clear understanding of organizations goal.
- Captain- Captain is one who leads the team to attain the established goal in an organization, for successful implementation of six sigma in HR there is need of good and capable captain. The captain is the CEO or management of the organization, who leads whole organization towards the goal. Providing needed infrastructure and financial support to achieve predetermined goals.
- Consideration- Human resource is human capital and has to be considered for good returns on investment. The processes have a major impact on the employee's efforts for delivering services or product. The company should consider human resource department as an important resource, reward intelligence, encourage initiatives and creativity and be involved in rigorous strategic planning.
- Choosing project- In human resource department choosing a project means they have to choose which is important and as well as critical function. Functions of HR Department are recruitment and selection, training and development, performance appraisal, retention etc. like we have to choose which function is so important and having major impact on success of organization and having high ROI.

CONCLUSION

Six sigma is a methodology which can be seen as a toolkit to be adapted very flexibly by companies in order to enhance process quality. The main purpose of this paper was to develop a framework for effective six sigma implementation. Building upon previous studies in six sigma, a need for utilization of a structured methodology for six sigma implementation in HR is addressed. Till date, six sigma has a good track record, is still embraced by many organizations, and tends to be thought of by those seeking improvements. The thrust of this paper is how six sigma could continue to be recognized and used in future. Six sigma could fade away like some previous management approaches if its existence continues to be confined to its classic form. Thus, there is a need of utilizing six sigma methodology in areas other than manufacturing(as done in Motorola and GE) like HR. application of six sigma tools and techniques to HR processes and functions is complicated compared to its application in other functional areas. There is ample of opportunities and financial benefit from applying this six sigma methodology in HR activities. HR can play a key role in bringing desired change in organizations by using six sigma methodology. The role of HR professionals can be positively achieved by six sigma knowledge as an added advantage. Organizations have to put high commitment on above mentioned five Cs which are key to successful implementation of six sigma in HR activities.

REFERENCES

- He, Z. (2009). Learn something about your Six Sigma's Maturity. *Quality Progress*, 8, 23-28
- Leyer M. & Chakrabarty A. (n.d.) Implementing a Six Sigma Initiative in Financial Service Companies Fan Xixi & Brun Alessandro, *The Integration of Six Sigma and Green Supply Chain Management*, Retrieved from <http://www.bookboon.com>
- GE, What is Six Sigma? The roadmap to Customer Impact 66
- Goh, T. N. (2002). A Strategic Assessment of Six Sigma. *Quality and Reliability Engineering International*, 18(5), 403-410

- Zhang Weiyong, Hill V. Arthur, & Gilbreath H. Glenn (2009, May), Six Sigma: A Retrospective and Prospective Study. Paper presented at POMS 20th Annual Conference
- Harry, M. J. and Schroeder, R. (2000). Six Sigma: The Breakthrough Management Strategy Revolutionizing the World's Top Corporations. Doubleday, New York
- Hahn, G. J., Doganaksoy, N. and Hoerl, R. (2000). The evolution of Six Sigma. *Quality Engineering*, 12(3),317-326
- The Basics of Lean Six Sigma Retrieved from <http://www.GoLeanSixSigma.com>
- Antony, J. and Banuelas, R. (2002), "Key Ingredients for the Effective Implementation of Six Sigma Program", *Measuring Business Excellence*, Vol. 6 No. 4, pp. 20-7
- Henderson, K.M. and Evans, J.R. (2000), "Successful Implementation of Six Sigma: Benchmarking General Electric Company", *Benchmarking: An International Journal*, Vol. 7 No. 4, pp. 260-81
- Kim M. Henderson & James R. Evans, *Successful Implementation of Six Sigma: Benchmarking General Electric Company*, *Benchmarking: An International Journal*, Vol. 7 No. 4, 2000
- Gupta C. B. (2011), *Human Resource Management*
- Bhatnagar, J. and Sharma, A. (2005), "The Indian perspective of strategic HR roles and organizational learning capability", *International Journal of Human Resource Management*, Vol. 16 No. 8
- C. B. Gupta(2011), *Human Resource Management*, Sultan Chand & Sons
- Bhatnagar, J. and Sharma, A. (2004), "Strategic HR roles in India: HR – dares to be the think tank?"
- Macconner, J. and Ulrich, D. (1996), "Human resource roles: creating value not rhetoric", *Human Resource Planning*, Vol. 19 No. 3
- Henson, R. (2003), "HR in the 21st century", in Henson, R. (Ed.), *Headsc Kaplan, R.S. and Norton, D.P. (2004), "Measuring the strategic readiness of intangible asset", Harvard Business Review*, Vol. 82 No. 2, pp. 52-63
- Dr. Nirmala M., Rajesha S.(2014, October), Six Sigma in Human Resource Management of Selected Organizations in Bangalore, *International Journal of Informative & Futuristic Research*, Volume 2, Issue 2, Retrieved from <http://www.ijifr.com>.