

# Six Sigma In Human Resource Management Of Selected Organisations In Bangalore

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## Abstract

*The aim of the study is to examine the six sigma practices and its impact on strategic decision. Six sigma as a business process is now allowing organizations to improve their bottom line by designing and monitoring business activities in a way that minimizes wastes and resources without, however, compromising with customer satisfaction. Most of the companies attempted to implement this methodology and got backward from attempt in middle of the process or beginning due to the challenges in implementing Six Sigma in HRM. Measurability of a process depends on the perception of an individual HR person. HR is that it is not considered as a major line function in many organizations. This is mainly due to the non-measurable nature of HR processes, Most of the organizations not considered Human resources as human capital. HR must ensure that there's good return on investment in human capital'. This paper made an attempt to frame a Five C's concept for easy and better implementing of Six Sigma in HRM by putting the outcome of discussion with five black belt experts, who worked on six sigma projects as the tools to successful implementation of six sigma methodologies in HR functions. Research on significance of Six Sigma and implementing of Six Sigma in HR functions abounds in the literature. The paper shall review the opportunity and challenges in implementing Six Sigma in HRM.*

## 1 Introduction

Six Sigma (SS) is an important management tool in business that many companies are using worldwide to strive for perfection. The tool enables the organisation to continuously improve its work culture and processes. Total quality is achieved through SS as it defines a clear road map. Iftikhar Ahmed (2012). Motorola started Six Sigma ( $6\sigma$ ) in the late 1980s; the concept has been a key game changer worldwide in firms having trouble with quality improvement in their business processes. Six Sigma, is a quality strategy, based on customer-focus and driven by data rather than assumptions and

experience. It is a systematic and rigorous methodology that reduces defect rate, measures and improves performance by utilizing gathered information and statistical analysis tools.

Six Sigma measures variability and aids companies in improving overall quality. It is fact-based and data driven and is executed on a project basis before it is applied throughout the organization. This management system achieves sustainable competitive advantage by providing a set of tools for improvement efforts to eliminate defects for its users. Six Sigma is a highly customer-focused program—management listens to the voice of the customer to find out what is important and captures what he wants. The program defines a structured way for businesses to solve problems. Users of Six Sigma try to pinpoint which elements of service delivery are critical to overall quality. An objective of Six Sigma is to eliminate every molecule of waste that can be found in an organization's processes. Substantial bottom-line benefits can be achieved by organizations practicing six sigma break-through strategies through the improvement of cycle time reduction of defects, cost reduction, etc. Quite often organizations are perplexed yet for adopting another strategy and ponder why should it consider Six Sigma? Simple answer to this today's organizations is customer-centric. Customers from the base of today's world market and sending clear message: produce high quality products at lower costs with greater responsiveness. Six Sigma helps an organisation achieving these objectives when aligned with other initiatives as part of a business strategy.

## 2 Objective Of The Study

- To know the symbiotic frame work of Six Sigma practices and its linkages to strategic decisions and ;
- To reveal the opportunities and challenges of Six Sigma in HR in selected companies.

## 3 Review Of Literature

**Miroslav RUSKO1, Ružena KRÁLIKOVÁ2 (2011)** in their research paper examined The Six Sigma method is a complex and flexible system of achieving, maintaining and maximizing the business success. Six Sigma is based mainly on understanding the customer needs and expectation, disciplined use of facts and statistics analysis, and responsible approach to managing, improving and establishing new business, manufacturing and service processes.

**Nagaraj Shenoy (2010)** in his research paper described “Six Sigma, which started as process improvement tool to enhance quality perception of customers towards products and services, has transformed into a management philosophy for many organizations. Human Resource department plays a pivotal role in the successful execution of Six Sigma projects. But when it comes to implementing the Six Sigma techniques to the processes of HR domain itself, many impediments are posing problems. They range from the questions of feasibility to measurability to applicability.

**Lori S. Miller (2010)** In his article evaluated that “Six Sigma is a quality improvement process starting with the voice of the customer and using data and statistics to solve customer problems,” Six Sigma is organized around individual projects with finite timelines, each project beginning by forming a team to identify the customer and the customer's needs.

## 4 Research Methodology

The research type is conceptual in nature. An unstructured interview was conducted with five Black Belt experts, 2 quality experts and 3 HR managers from selected companies. Online mode was used to

have interacted with them. The outcome of the discussion is also used as primary source for this study. Major source for this study is secondary data of published journals, articles and case studies..

## 5 Results And Discussion

### 5.1 A statistical metric

In statistical terms, sigma represents the standard deviation; a measure of the variability within a population around the mean. For example, the mean height in a population may be five foot nine inches, with the majority of people, say 68 per cent, having a height which is within three inches of that mean. This represents one standard deviation from the mean. The next deviation, the second, covers all people with a height within six inches of the mean, approximately 95 per cent of the population. *Six Sigma* represents the population that falls within +/- six standard deviations from the mean. If you apply *Six Sigma* to a payroll process for instance, and are calculating the acceptable number of defects allowable per million payroll calculations, then to fall within *Six Sigma* parameters, there would only be 3.4 defects per million allowed. See table below.

**Table-1: Sigma level defects per million opportunities**

Sigma Level	Defects per million opportunities
<b>1</b>	<b>690,000</b>
<b>2</b>	<b>308,000</b>
<b>3</b>	<b>66,800</b>
<b>4</b>	<b>6,210</b>
<b>5</b>	<b>230</b>
<b>6</b>	<b>3.4</b>

This means, for example, that a payroll process operating at a *Six Sigma* level will have less than 3.4 errors per million opportunities.

### 5.2 DMAIC methodology of Six Sigma

- **Define:** Defining the team to work on improvement, defining the customers of the process, their needs and requirement, process mapping. In define phase customer requirements are derived and documented.
- **Measure:** Identifying key measures of effectiveness and efficiency and translating them in to concept of sigma. In Measure phase detail Data collection plan is prepared.
- **Analyze:** Through analysis, the team can determine the causes of the problem that needs improvement. In Analyze phase root causes are identified, verified and quantified. Analyze phase contains Cause and Effect diagram, Hypothesis testing.
- **Improve:** The sum of activities that relate to generating, selecting and implementing solutions. In Improve phase solutions are validated and cost benefit proposal presented to champion.

- **Control:** Ensuring that improvement sustains over time. Process is standardized in control phase and procedures are documented.

### **5.3 Challenges in implementing Six Sigma in Human Resource Management**

Many companies attempted to implement this methodology and got backward from attempt in middle of the process or beginning due to the challenges in implementing Six Sigma in HRM. Measurability of a process depends on the perception of an individual HR person. HR is that it is not considered as a major line function in many organizations. This is mainly due to the non-measurable nature of HR processes, Most of the organizations not considered Human resources as human capital and there are all become challenges in implementing Six Sigma in HR activities.

- **Measurability of a process:**  
Measurability of a process depends on the perception of an individual HR person in HR activities. Where there is no any standard parameter to measure the process of HR activities it depends on the perception of individual decision.
- **HR is that it is not considered as a major line function:**  
HR is that it is not considered as a major line function in many organizations. This is the topmost challenge in implementing Six Sigma in HR activities. In any organisation sales, production and marketing departments mainly consider as the major line functions whereas HR consider as the only supporting function. Organizations measure the performance through the financial benefit it achieves in certain period of time. Departments like sales, marketing, and production are always ready with numerical data which they achieve and show it. But in case of HR functions it always lays on the overall organization performance and majorly it saves the cost of organisations. Unfortunately organisation management people will not consider the savings as earnings.
- **Non-Measurable nature of HR performance:**  
Measurement is possible only when you physically experience it or sometimes even by feel it also you can measure the things like services. But in case of HR performance even though there are some tools called score card and etc are available in industry to measure, still it's not measurable against the benchmark. Many at times there is no bench mark for HR performance as it is consider as the supporting activity in organizations.
- **Not considered Human resources as human capital:**  
Most of the organizations mindset not considers you and your people as *assets*, rather than as *costs* (liabilities). Especially in case of HR many of the organizations decided that HR department is the cost to the company rather it's a asset to company.
- **ROI:**  
HR must ensure that there's good return on investment in human capital 'That's right you are as much an asset as any piece of capital equipment, and you represent an investment with extraordinary potential for return. Shifting the perspective on people from liabilities to assets (or investments) is fundamental to Six Sigma. Once you're thinking in terms of "human assets," it's equally important to realize the underlying monetary value of rooting out wasted materials and steps in processes, as this is key to unlocking the hidden return on your investment in people.
- **Lack of management support:** The major reason for any six sigma projects failure is the lack of management support. Lack of effective leadership also leads the projects towards failure. Many researchers found that there is problem with management support in many organizations.

**6 FIVE C's for successful implement Six Sigma in Human Resource Management**

As the first step in that transformation, the Six Sigma mindset considers people as *assets*, rather than as *costs* (liabilities). An asset as any piece of capital equipment, represent an investment with extraordinary potential for return. Shifting the perspective on people from liabilities to assets (or investments) is fundamental to Six Sigma. Once starting thinking in terms of “human assets,” it’s equally important to realize the underlying monetary value of rooting out wasted materials and steps in processes, as this is key to unlocking the hidden return on your investment in people.

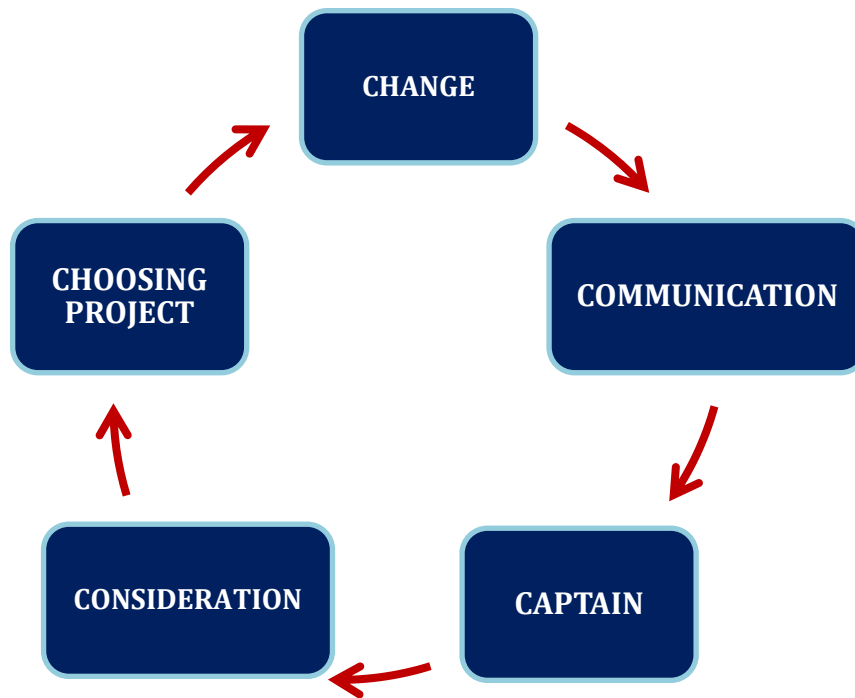


Figure 1: FIVE C's Model for successful implement Six Sigma in Human Resource Management

**I. Change**

Companies that are not ready for Six Sigma are those that tend to be resistant to change, have a blame mentality, a low appreciation of staff, the inability to dedicate project resources, and a rigid, hierarchical organization structure. You can't expect it 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 it has to be initiated, managed and monitored by the top management.

**II. Communication:**

When we decided to make any changes in an organization’s the co-operation is required that is possible with smooth way of communication in all the level of operations. There should be a clear way of communication between the department and from top level to bottom level management in an organisation. If there is no communication gap, there is clear understanding of organizations goal. HR department, always connect with the other department internally in one or the other way. Implementing Six Sigma in an organization needs clear communication.

### III. Captain

Captain who leads the team to attain the established goal, same way in an organization successful implementing 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.

- Captain defines the organizational goal and clears individual goals to achieve organizational goal.
- Captain provides leadership and commitment for quality improvement.
- Captain communicates organizational policies and performance expectation to employee.
- Captain acts as a key driver in continuous improvement and regularly reviews quality performance measurement.
- Captain audits the execution of results of each action plan.

### IV. Consideration

It has to be understood that though HR is not a huge department of the organization, it has a huge effect on every organization. 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.

### V. Choosing Project

. The process life cycle and the cost of poor quality also need to be given proper consideration. The primary metrics that are put in place are also considered in various phases to find the effect they have on the improvement process. The trend is to select those projects with the highest ROI and that are found to be feasible by time and budgetary constraints. 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.

## 7 Conclusion

Application of Six Sigma tools and techniques to HR processes and functions is complicated compared to its application in other functional areas. It is mainly due to the abstract nature of function of HR processes in selected organizations. But in view of the highly competitive market conditions, an organization can ill-afford to exclude HR from the purview of constant process improvement. The questions on the quantifiability and measurability of HR processes notwithstanding, the HR fraternity needs to think of going Six Sigma way to improvise their functional ability. There is ample of opportunity and financial benefit from apply this sigma methodology in HR activities. Organizations have to put high commitment on above mentioned Five C's which are key to Successful implementing Six Sigma in HR activities.

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