

CHAPTER 8

DESIGNING A PERFORMANCE MANAGEMENT SYSTEM INSPIRED BY HUMAN BODY ORGANIZATION ^{8.1*}

8.1 Introduction

The employees, being the main performers; are key to the successful achievement of organizational goals. So, the managers must know how to inspire, develop and get the work done from them. Managers also have to make sure that their employees have all the required skills, knowledge and are motivated to perform their tasks effectively. Therefore, all organizations are needed to devise an employee performance management system that could address major human resource related aspects, so that best from them could come.

A good performance management system shall appraise the employees on the basis of their performance. It should reward good performers to boost their morale and should also deal with non performers by addressing the reasons of their non performance. However, designing a performance management system that inculcates all relevant aspects requires due prudence and is a complicated and tedious task. A number of alternative performance management systems are available in literature with their own pros and cons but none of them is perfect in managing all issues related to employee performance. So the managers are looking for systems that are well proven in managing its individuals with an unbiased and rational approach. But they are not very successful in discovering a perfect organization or system from which they can draw insights for effectively handling various performance related issues of the employees. However, there are examples in Nature with effective and fully functional performance management systems. One such example is the human body. Human body has been considered as a perfect organization which has also been proved perfect in maintaining its health. Moreover, the cells which are basic unit in our body are analogous to employee of an organization. They are like a self contained

8.1* This chapter is published in the form of a research paper titled “Designing a performance management system inspired by human body organization” in International Journal of Bioassays, vol.2, no. 6, pp. 889-896, 2013.

unit in the human body organization. They perform all the roles assigned to it effectively and if the brain finds it unfit, it stimulates them to leave the whole body to protect the whole body from its adverse consequences. Such mechanism of managing cells to ensure superior performance can be understood as a performance management system of human body organization. Moreover, it is expected that by understanding the human body organization and the process followed by it in managing performance of cells as its individual units can help managers to draw insights based on which an effective performance management system can be designed. Therefore, in this chapter an attempt has been made to develop a performance management system inspired by the smallest functional unit of human body organization i.e. cell.

8.2 Understanding the human Cell as analogous to organizational employee

According to Sherwood [298], a cell is the basic structural and functional unit in human body. It is the smallest unit of life which is classified as a living thing. A single cell is often a complete organism in itself. It is capable of metabolizing its own nutrients to derive energy, synthesizing many types of molecules, and replicating itself in order to produce succeeding generations. It can be viewed as an enclosed vessel, within which innumerable chemical reactions take place simultaneously under precise control to contribute to life and procreation of cell. Moreover, the cells are in constant communication with its neighbours, cooperate with them, receive nutrients and expel wastes into its surroundings. Furthermore, as already discussed; cells unite to form tissues and organs, and the cells belonging to same organ have a common purpose. However, since, each cell functions independently, we can say that an organ is composed of self managing units with a common purpose which differentiates, grows and dies to keep the body healthy.

Moreover, if we visualize a cell as an employee of human body organization, it can be observed that it possesses all necessary skills to perform and also bears accountability for its non performance. It manages its own proliferation and death- as it replicates according to its requirement of the body and eliminates itself if found unfit for the defined role. It has DNA as a data base which contains all kinds of information about the structure and needs of both the cell in which it exists and all other cells in the body. Besides, the boundaries of a cell are selectively permeable

which regulates incoming and outgoing cell traffic with the help of specific receptor on it. Table 8.1 portrays the analogy of a cell with an organizational employee.

Table 8.1: Analogy between a human body cell and organization employee

Cell	Employee
Basic building block human body is composed of millions of cells	An organization is composed of employee
The cell is equipped with necessary organelles to perform its functions.	Each employee has a specific skills that makes him specialized to perform its tasks and duties.
Information in the form of genetic material is provided to some cells to allow it to work independently.	Job related information in the form of education is there with an individual that makes them self sufficient to perform.
Malfunctioning of a single cell can affect the whole body if not cured.	Inefficiency of a single employee or department can hamper the whole organization in achievement of common goal.
Cell is responsible for its own replication (growth) and death	Growth can be achieved through good performance and hard work of the employee only.
Though the cell is held accountable for its ultimate fate but death is stimulated by certain receptors.	Good or Bad, performance depends on employee himself but action against him is stimulated by performance appraisal depending upon the management policies towards it.
Different types of cells are there to perform various body functions.	Employees with various skill set is required to perform different functions of an organization.
Every cell has different life span depending on the functions they perform	Every employee has varied tenure with the organization depending on the role assigned and his efficiency in performing that role.

8.3 Meaningful insights from human body in managing performance of its individuals

8.3.1 Management action grid inspired from the life span of various cells in human body

According to Faller et al. [116], there are 10 trillion cells in human body which are of 200 types. Each cell performs different function and thus contributes to healthy survival of the body. Some cells are short lived and have a frequent turnover while others remain in the person's body for life. The average life span varies from a few hours for certain blood cells to 15 years for muscle cells, and lifetime for the nerve cells [298]. The life span of a cell depends upon the function carried by it as a cell can remain in the body and function till the body finds it fit. A cell which is not performing up to the desired levels due to infection, damage or any other reasons, are rejected by the body irrespective of its life span. Figure 8.1 shows the cycle of cell proliferation and death.

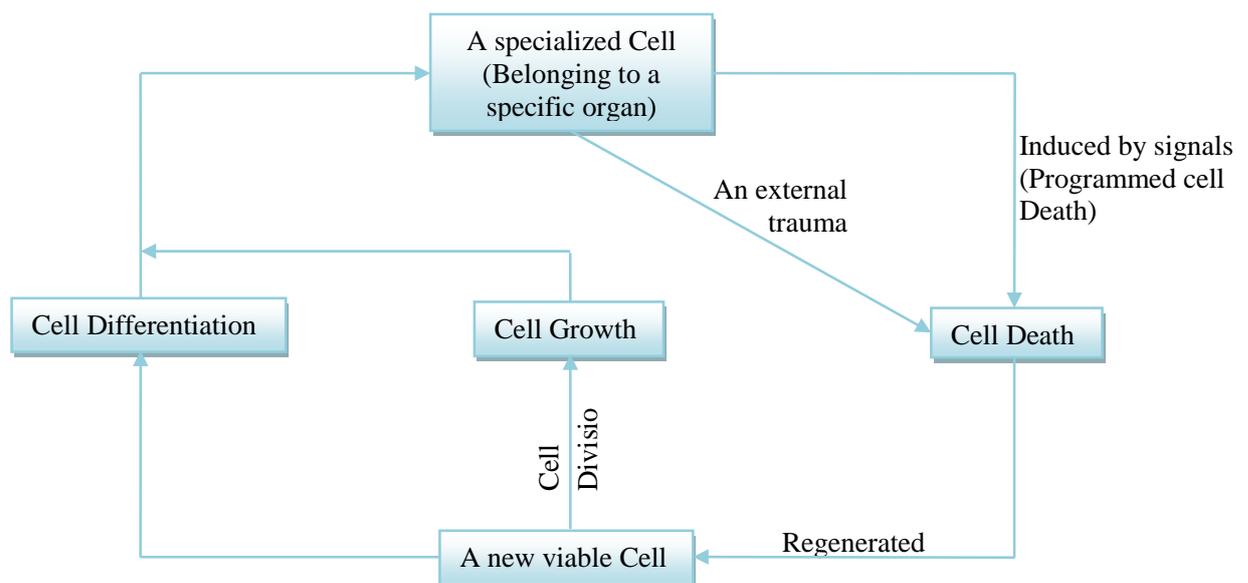


Figure 8.1: Systematic representation of Cell Cycle- Growth, Differentiation, Death and Regeneration of Cell, a basic constituent unit in Human Body

To make this policy simpler human body organization has predicated the life span of various cells by linking their function with the damage that can occur to them during their performance. For example Red Blood cells or RBCs, with an average life span of 120 days, performs a task of carrying oxygen from lungs to various organs

and eliminates waste from various body parts to lungs [298]. Though the function performed by RBCs as an oxygen carrier is not very complicated but it is vital for the survival as it is providing life supporting element to all the other cells. RBCs while performing their role are subject to mechanical stress as they flow through the various blood vessels in the body undergoing tremendous wear and tear. This distortion makes it less efficient in its performance and in such a vital function; inefficiency in performance cannot be afforded by the body. This justifies the high turnover of RBCs and even other cells in the human body. Similar philosophy is being used by defence forces as well. Since the country's security which is of paramount importance is on stake, therefore no compromise in performance can be acceptable. Therefore, defence personnel are hired in Short service commissions and also their retirement age limits are significantly lesser [3]. This biological observation can also be used by companies in determining the tenure of employees depending upon their role and this also validates the rationale of outsourcing services or human resource on contractual basis. People have to be competent to perform the role assigned to them. They continue so long as they meet expected levels of performance.

We can further justify this observation by taking example of recruitment function in organizations. Recruitment is an essential function in which applications are invited from outside, candidates are selected, and assigned to various departments of the organization as per the requirement. This is an important function as effective functioning of various departments significantly depends on the availability of right kind of human resource. Moreover, it is clear from the comparison that oxygen supply by RBCs and supply of competent people through recruitment function of a company are analogous and this analogy can be extended as a reference for deciding whether to hire contractual or permanent employees. So, the short life span of RBCs in human body justifies that outsourcing services on contractual basis can be more beneficial to an organization, because if the company finds the performance of outsourced agency or on-contract employee unsatisfactory or unfit for the job, they have an option of not renewing the contract, or even terminating it in between. Therefore an inherent pressure to perform is put by the organization on the outsourced function, as they very well know the consequence of not performing. Also an organization is not bound to carry any misfit. This is perhaps validated in various government jobs where the employees; once made permanent may become reluctant to perform to the best of

their capability and one has to live with it. So, this can also be taken as an important tool for managing employees' performance.

Based on human body's strategy of responding to various cells according to their performance and turnover rate, a grid has been proposed which can provide useful insights to managers for deciding appropriate action on its employees based on their performance and length of tenure with the organization. The proposed grid has been named *Management Action Grid*. The horizontal axis of the grid represents employee performance, which also depends on employees' suitability to job among other factors. The vertical axis represents employee's tenure with the organization that depends on the role to be performed. The four parts of Management Action Grid are grouped on the basis of low to high employee performance and their tenure with the organization. The different combinations can be seen in the Figure 8.2. These combinations will act as a basis in deciding management action on these employees.

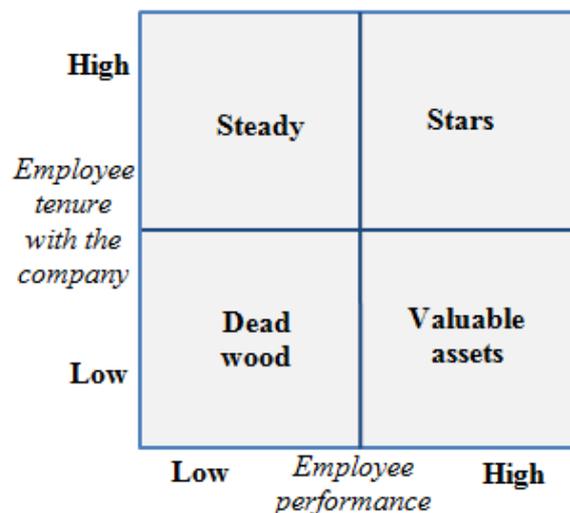


Figure 8.2: Management Action Grid

Based on the *Valuable asset zone*, the signal is 'go ahead', indicating managers to renew the contract with the employees of this zone as they are good performers. Perhaps they can be put under green channel of renewal of contracts of employment (flexible employment contract); in which the owner company will always have control in their hands. In the human body WBCs and RBCs fall in this category where though their life span is low but their performance level is high. Employees in the *Star zone* attract major attention and must be rewarded or promoted to more challenging

jobs to motivate them to perform. In the human body these are comparable to the nerve cells which remain with the body from birth till death. They perform key functions with very high precision and therefore the body does not sacrifice them during the entire life span. They are assigned to act as the control centre in the body. Thus stars could control the organizational system. For the *Steady zone* the signal is 'focus and develop' as their tenure with the organization is long. The human body cells which can be repaired are analogous to this category. For the employees of the *Dead wood zone*, the managerial action is 'stop' indicating their termination inspired by the process of cell death in human body. Cells that are damaged or infected by viruses have to pass through the process of cell suicide as their presence can negatively affect the whole body. Dead wood needs to be weeded out if the organization has to remain agile, efficient and competitive.

The proposed Management Action Grid can be further justified by taking policy paradox in Indian technical education into consideration. In Indian education system there is a faculty shortage due to deficit quality of the current applicants. Vrat [358] has pointed out that the policy paradox of our system is the main reason behind this problem. Since regulatory authorities such as University Grants Commission (UGC), AICTE do not consider faculty above 65 years of age and thus many of extremely talented people are left unutilized. So, despite of acute faculty shortages, our system compulsorily retires the faculties on the date of superannuation even if they are physically, mentally and passionately agile. Thus the talent wastages and faculty shortage co-exists.

According to Vrat [358] this problem can be solved if top management ignores such age constraint and invite a faculty due to their strong academic credentials. Interestingly, the recommendations made by Vrat [358] in this regard support the Management Action Grid proposed.

High <i>Employee tenure with the company/ time left for superannuation</i>	Steady Focus on faculty development	Stars Motivate, nurture & develop them for academic leadership
	Dead wood Gracefully face out or use them in handling routine administrative work	Valuable assets Retain as long as long as possible as research guides, mentors, consultancy & teaching
Low	Low	High
	<i>Employee performance/ caliber of the teacher</i>	

Figure 8.3: Management Action Grid combined with Faculty numbers and Caliber Matrix by Vrat [358]

The matrix in Figure 8.3 shows lessons for policy paradox in technical education system based on Management Action Grid proposed and ‘Faculty numbers and Caliber Matrix’ by Vrat [358].

8.3.2 Performance management system inspired by the concept of cell death

Though hiring employees on contractual basis seems to be a good option for organizations in managing performances of its employees, but it is not prudent to have temporary staff in majority. In comparison to contractual staff, it is beneficial for the company to get the majority of operations and other important task performed by permanent employees of a company as they are better accustomed with the work procedures and policies. Besides, the company can get worth out of the expenses made during the training from the permanent ones only. However, it is also very important to make the permanent employees perform to achieve the organizational goals. Thus, the organizations are confronted with another challenge in designing the performance management system for developing the policies for managing the performance related issues of its permanent employees. This issue motivates to examine how the human body, the Nature’s great creation manages the performance

of its individual units for its healthy long term survival. This might be useful to managers in solving many organizational problems dealing with employee performance.

The cell in the human body which is damaged, distorted or infected by virus (more precisely we can call a cell which is not fit to perform its function effectively) is analogous to a non performing employee. Besides, the fate of a cell in our body depends on its requirement to the rest of the organ and also tissue homeostasis is important for the maintenance of a stable body, so the body has to keep a balance in cell proliferation and cell death. Therefore, the cells which may present any risk to our health are destroyed by themselves through the process of cell death. Hence, it is expected that by analyzing and understanding the human body's action in handling such malfunctioning cells, useful managerial insights can be drawn with the help of which major problems related to the employee non performance can be resolved.

Furthermore, cell death in human body mainly occurs by two processes 'Apoptosis' and 'Necrosis' [107]. According to Kam et al. [178], apoptosis is a form of programmed cell death, and a genetically regulated cell suicide mechanism. It is a process in which cells acquire the means of their own destruction which is essential for our well being. For instance, it plays an important role during viral infections, by killing of infected cells before all of them will spill over with virus particles. This act is called as 'Cell Suicide'. Hence the cell destroys itself to hamper spread of viruses and thus save the whole organ. But this decision to die is taken lightly; in fact, activity of many genes and their mediators influence a cell's likelihood of activating its self destruction program. So, when any cell is infected by virus, damaged or distorted, the cell shrinks and pulls away from its neighbours, then after a series of structural changes it destroys itself. This destruction can be self induced or because of rejection by other units of the tissue. The second way, necrosis according to Duchon and Saltsman [107] is an unplanned response to some trauma or infection or other shock to the system. This is what happens to skin cells during sudden burning after touching a hot object. While apoptosis selectively removes certain cells neatly, necrosis does it without any strategy. Accordingly, the process of necrosis is much messier and also affects the nearby cells by causing inflammation.

Interestingly, Apoptosis and Necrosis as the two processes of cell death can be visualized in organizational context also. Apoptosis, the programmed dismissal is done in the form of voluntary resignations with minimal harm to the employee. On

the other hand Necrosis can be seen in the form of sudden terminations affecting the employee and rest of the staff significantly. So considering such similarities in performance management strategies of both organizations, attempt has been made to develop ways of managing poor performers in the corporate organizations by mimicking cell suicide mechanism in the human body.

Moreover, before applying the cell suicide philosophy to organization, the importance of a good performance management system is explained taking example of the game of hockey. In order to win a game of hockey, all the 11 players working together is more important than the efforts of the best player. Even though the team considers the best players but if one or two players continually fail to work hard, victory cannot happen. The same holds true in business. Therefore, the manager should focus on the performance of all the employees rather than just focusing on improving the performance of a few best ones. Also the growth of a company is measured by the ability to harness the employees' talents, skills, efforts, goodwill, time and energy and transform them to business results. The Companies, that are able to tap the talent of their employees lead to profitability. However, along with outstanding individuals, the companies also have some underperforming individuals who are barriers in achieving company goals and objectives. Moreover managing the behaviour and performance of such employees can be a difficult challenge for a manager. Therefore, managers must find ways to address the situation and motivate such ineffective employees to begin performing above the threshold and demonstrate appropriate levels of competency. The use of either positive or negative motivational techniques can be effective when attempting to improve the behaviour of ineffective or non-performing workers. If the performance does not improve despite efforts to motivate them, one can conclude that we have identified a really poor performer.

Having identified a genuine poor performer, the managers have to handle him or her in such a way that the employee is removed from work with the minimum negative impact on the rest of the staff. Dismissals though come easily to mind to handle poor performer, but these are not as simple because the problem with this approach is that the managers (in charge with managing the poor performers) may find this process too distressing emotionally. The other problem with such strategy is that it erodes the goodwill of the organization. It gives an impression of firing culture in the company and the talented candidates may avoid joining such a company.

In this matter asking the employee to voluntarily resign can be a good option as it manages to protect the emotional health of the employee saving him from being dismissed and also allow internal climate of the organization to remain healthy and fair. Such resignation can be justified when employees do not improve despite counselling and many warnings from the company through various means. The proposed suggestion has been justified by considering the process of Apoptosis in the human body.

One very important aspect to consider before applying this biological observation is to create a culture of accountability that exists in our body at cellular level where cells as employee demonstrate high levels of accountability and bear high levels of ownership to think and act in a manner necessary to realize organizational goals. This further requires that managers must provide the employees with necessary information and also a level of liberty to perform in their own way should be encouraged. Consequently, in such a culture, individuals at every level of the organization are personally committed to achieving the common goal as done by each cell in human body for the purpose of its healthy survival.

The proposed management philosophy can be further supported by comparing the performance monitoring system in private and government organizations. In government organizations the practice is not to terminate any employee irrespective of their performance. Such an advantage of being associated with the government institution is known to everyone and thus may make them less motivated to work hard. Also the eligibility of an employee to get increment depends on years of service or job experience irrespective of their performance. This actually demotivates genuine performers to work effectively. On the other hand in good private organizations, good performers are rewarded while non performers are punished for their poor performance. This will result in putting up of more serious efforts by the employee to avoid being penalized. This makes private organizations more efficient than many government ones.

According to Guha [147], government also had tried to handle this situation in many ways to resolve to redundancy of work force. As a last resort; Voluntary Retirement Scheme (VRS) is found to be a better alternative than outright retrenchment. According to Chitra [72] VRS is one of the strategies introduced in the early 1980s in Central Public Sector Undertakings (PSUs) to reduce the so called surplus or redundant workforce.

Mainstream economists have perceived the voluntary retirement as a measure to shed the workforce whose marginal productivity is zero [147]. But this strategy of ‘downsize with dignity’ was not only proved unsuccessful but also led to some other adverse consequences. The problem was that the eligibility criteria for the scheme among other aspects do not involve performance of the employee or it was an open option for all employees with few constraints. And the result was that the good performers have opted for this scheme and after leaving the government organization, they seek to join other private jobs. Hence, the problem at hand was left unaddressed. Had the government introduced this policy in a form where performance is linked to the eligibility for the scheme probably they would have succeeded in handling non performers. Learning from the cell extinction could therefore be a very insightful model for policy deployment.

Human body organization not only represents an organization structure but also the strength, strategy and culture to make its constituent units perform. It is not just the structure that can be imitated but a philosophy that needs to be analyzed and understood to solve performance related issues in the organization from the broader systems level up to the basic constituent units. This chapter takes an initiative in developing a biologically inspired management system.

8.4 Conclusions

There is lot that can be learnt from the Human body, the Nature’s best creation. Based on the discussion, we have seen that human body is analogous to a corporate organization and also the human body cells are like the employees of a corporate organization. From this we could analyze and understand the strategies followed by the human body in managing various issues related to its constituent units. We know that the prerequisite to employee performance is the culture of accountability to achieve organizational mission. The application of cell’s self elimination process in human body provides an excellent strategy to the organizations in designing an appropriate performance management system. Moreover, the proposed Management Action Grid suggests possible actions to the manager for effectively handling employee performance.