

# CHAPTER 9

## HUMAN BODY INSPIRED VALUATION OF ORGANIZATIONAL FLEXIBILITY

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### 9.1 Introduction

Today's turbulent business world is now increasingly called a "VUCA" environment—one that is volatile, uncertain, complex, and ambiguous. To be successful in such environment, organizations must be more flexible, adaptive and agile than ever before. Organizations that lack flexibility are unable to bounce back after setbacks [369]. However, though, all businesses respond to change that occurs in the environment by adjusting their operations, yet this is done a very reactive way. It can become more pro-active if the change in the environment is anticipated or proactively sensed, and modifications are made accordingly. Nevertheless, the alteration of business is always related to a specific change or stimuli in the environment. Moreover, since there are many stimuli from the environment and as each stimulus sets off different modification, it becomes difficult for the organizations to incorporate too many changes. Therefore such situation requires a strategic orientation. The firm needs to organize and structure itself in such a way that it can change more easily in response to any environmental changes. But this is not an easy job. Businesses are struggling since long to define the right structural solution for their organization. In fact, this is one of the important research topics in the field of organizational sciences. The available literature on flexibility contains the background of flexibility, implementation of different flexibility practices in different parts of the company, the cause of flexibility, etc. However, most literature emphasizes on the need to have flexibility in modern day organizations [320, 322]. It has also been linked to the vitality and sustainability of the organization. Furthermore, the growing need for flexibility in business can be seen from reactive as well as proactive perspective which requires organization structure to be revisited [321]. Moreover defining how to structure and organize is often described as "the form" of a business. Different organizational forms are widely described in the literature, each have their pros and cons. These forms are often classified by the degree of flexibility contained. Besides, in order to make clear the difference between these types, a number of organizational forms have also been described by researchers using metaphors. One

paramount type relating to flexibility is organic organizations. The organic organizations are similar to an organism, seeking to adapt and survive in a changing environment, and thus must be flexible. In fact human body, the most complex organism, is finest metaphor of organizations which bears optimal degree of flexibility.

The present study involves comparing flexibility perspective of human body with corporate organizations as shown in Table 9.1. The comparison shows that the similar flexibility dimensions are present in both human and corporate body.

Table 9.1: Comparison between corporate organization and human body from flexibility perspective

<b>Flexibility dimension</b>	<b>Corporate Organization</b>	<b>Human Body</b>
<b>Structural flexibility</b>	Management's ability to modify the organization structure and its decision and communication processes according to environmental changes.	It refers to the ability to move or stretch the internal and external parts of our body.
<b>Operational flexibility</b>	It includes small short term changes in processes and procedures without influencing substantially the relation between the organization and its environment.	It is related with the predefined range of body's normal functioning, e.g. temperature blood pressure.
<b>Psychological flexibility</b>	It refers to willingness and intent to shift the outlook and vision of promoters and top management with changing business needs.	It refers to willingness to respond to what's happening in the environment against or according to what is happening in the mind.

Moreover, human body has evolved as a finest creature which has been dealing with dynamic situations ever since its existence and evolving continuously. Therefore, considering optimal flexibility in human body and today's VUCA environment, this

chapter is dedicated to provide insights on optimal degree of flexibility by analyzing human body in greater detail.

## **9.2 Analysing flexibility in human body**

Nature has designed human body in a way that it offers inherent flexibility to it. In human body, flexibility can be seen in three forms: structural, physiological, and psychological. Structural flexibility lies with the skeletal or muscular system of human body, which facilitates coordination and control. It refers to the ability to move or stretch the internal and external parts of our body. For example, in humans, the stomach normally expands to hold about one litre of food; human bladder reaches its capacity between 16 to 24 ounces of urine. In fact, quality of life can be enhanced by improving and maintaining a good range of flexibility. On the other hand, physiological flexibility is related with the predefined range of body's normal functioning, e.g. temperature, blood pressure, etc. Physiological flexibility is the adaptive response mechanism to ongoing rapid climatic changes. However, all physiological traits do not adjust in a similar way to compensate for an abrupt environmental change. In this regard, moderate to high physiological adaptability in response to external stimuli indicate a moderate or high physiological flexibility, whereas restricted adaptation to stimuli is indicative of lower flexibility. Example of moderate degree of physiological flexibility includes digestion related activities, capacity of the body to regulate its core temperature etc. On the other hand examples of low flexibility include mechanisms which are vital for the survival and any delay or sub-optimality in functioning might prove disastrous- e.g. supply of oxygen to various body parts. In addition, psychological flexibility refers to the willingness to respond to what's happening in the environment against or according to what is happening in the mind.

Collectively, these three aspects of flexibility offer coordination and control to our body, and make sure that correct outcome is achieved every time. Besides, it has been observed that the unique characteristic with human body flexibility is the variations in the degree of flexibility throughout the body- some parts in our body are more flexible than others. Human body makes this distinction based on the functional requirement of the specific parts. For example, it has been observed that more flexibility is imparted to the structural aspect of our body, i.e. organs and organ systems e.g. capacity of stomach to carry food, capacity of urinary bladder etc. Whereas, the

physiological areas which are critical for survival are less flexible, e.g. ranges like human body temperature, blood pressure etc. However, there is no limit to psychological flexibility, which results in individuals with different health, personality, and behavior, though have similar body with identical systems and subsystems. Eventually, we may find people who have the potential to better tolerate and effectively use emotions, thoughts, and behavior to extract the best possible outcomes in varying situations. And this potential of mind determines the psychological flexibility of a person (Figure 9.1). Therefore, a healthy person is someone who can manage the self in an uncertain, unpredictable world around him, where innovation and change are the norm rather than the exception. Also there are individuals who lack psychological flexibility, which negatively affects their healthy and stress free endurance.

In this way, wide range of dynamic physical and psychological abilities forms the essence of health. Nevertheless, if efforts will be put in by individuals it would help in finding greater efficacy and fulfillment in their daily lives. Thus considering the aforementioned discussion which provides a holistic view on value of flexibility, there is a need to develop a flexibility valuation model for human body to derive pragmatic insights about incorporating optimum flexibility in various parts of the organization.

### **9.3 Valuation of flexibility in human body**

It can be seen from the above analysis that the optimal degree of flexibility in design and operations in human body would result in perfect response to various environmental stimuli. Had the high degree of flexibility been given throughout the body then results could have been disastrous e.g. our heart and nervous system has been designed for a particular range of blood pressure. Had there been flexibility to control the blood pressure and increase or decrease the pressure as per our wish, this could have resulted in collapse of nervous system. Also, had there been 100 percent flexibility in joints of our body, perhaps we would not have been able to stand firmly. If low flexibility had been there, even a minute turbulence in the environment might result in dreadful consequences to the body. With zero flexibility, we would not be able to perform routine tasks, and our daily life would become difficult. So, it can be learned that flexibility is essential for every system but optimal degree of flexibility is the key. Hence a critical question here is- how much flexibility is required? In order to analyze and work out optimum values of flexibility for different circumstances a

‘Flexibility valuation grid’ is proposed. The grid is based on the matrix for valuation of managerial flexibility given by Copeland and Keenan [81]. It has been developed by emulating varying degree of flexibility in human body on the four quadrants of the matrix. The proposed grid shows the value of flexibility for different combinations of two criteria which are depicted on X and Y axis of the matrix. The horizontal axis represents ‘Uncertainty in the environment’ and vertical axis stands for ‘Organizations ability to respond’. The four cells in the Flexibility valuation grid shows four different situations which are combinations of low to high uncertainty in the environment and organizations ability to respond as shown in Figure 9.1. These different combinations serve as a basis for deciding the low, moderate or high value of flexibility.

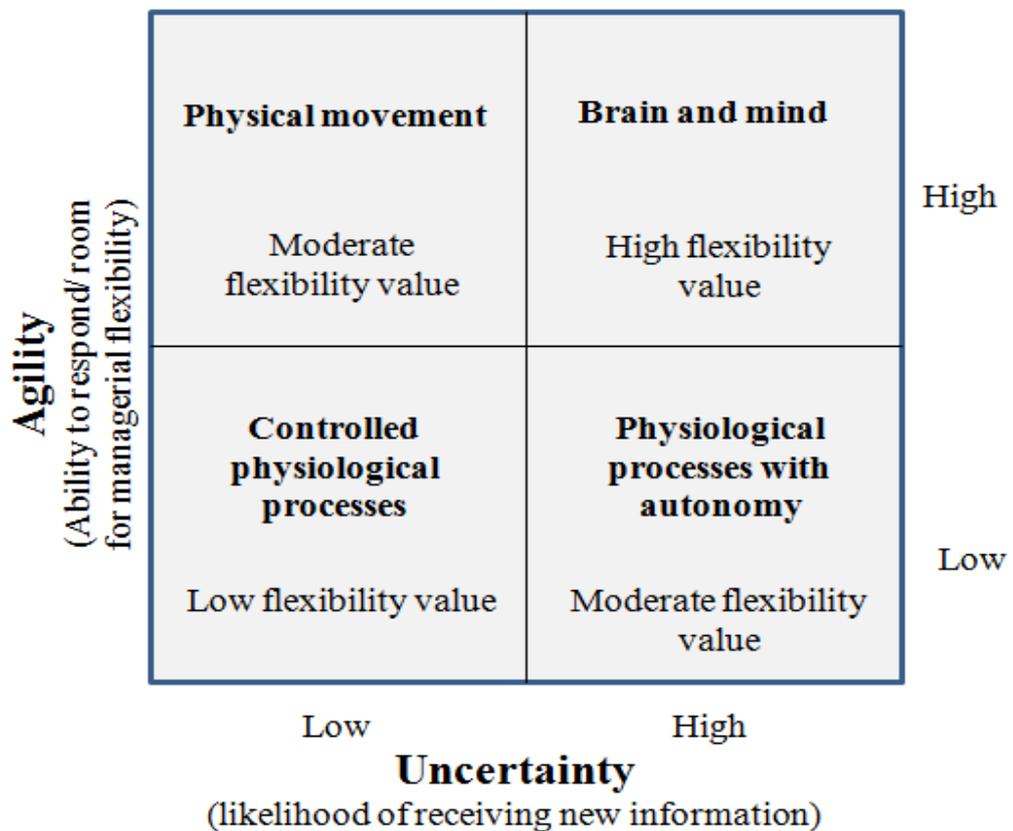


Figure 9.1: Flexibility Valuation Grid

As shown in Figure 9.1, the flexibility grid suggests that a situation where the possibility of receiving new information from the environment is low and the organizational ability to respond is low, the value of flexibility should be low in such situation. The proposed recommendation can be supported by taking an example of human respiratory system. Under normal conditions the external environmental

conditions are mostly stable for human respiratory system. Therefore, overall system is designed to accommodate minor environmental disturbances like smoke, dust, etc only. But, under extreme environmental conditions when the air contains poisonous gases and solid particles, reduced supply of oxygen and intake of unwanted gases disturbs the respiration process. Moreover if such extreme condition lasts for more than few minutes the body will get suffocated and the person could die. This shows that when the external environment is relatively stable, and the concerned subsystem has a very low ability to respond to possible change in environment, value of flexibility should be low.

Besides, there are certain physiological processes in our body wherein the environment is unstable or likelihood of receiving new information is high with low system responsiveness to it. The example is food intake and digestion. Whenever we are confronted with some delicious food or when involved in some physical work, the need for food intake is triggered. This is the basic response to stimuli received. This example shows turbulence of the environment in initiating food consumption. However, our body will not die even without having that food, until starved for longer duration. This shows the body's restricted ability to tolerate hunger. So it can be said that a moderate flexibility is given to digestion system, wherein we can take food as per our need. This justifies moderate flexibility value for a situation where the environment is turbulent with low organizational responsiveness.

Besides, another situation where moderate value of flexibility is suggested is when the uncertainty in external environment is low with high organizational responsiveness. Such situation recommends a moderate flexibility value as it does not require high flexibility, since the likelihood of receiving new information is low. Moreover, high flexibility is suggested when the external environment is highly unstable and the organization also bears ability to cope with it. The reflex action in human body is perfect example to justify our suggestion. For example, in very cold and dry conditions, in order to prevent our eyes from dryness, eyes are flexible enough to blink faster. Or when somebody touches a very hot object, our body immediately retracts the specific part to circumvent burning. Apart from this, high flexibility is also built in to the mind for taking decisions in response to external stimuli, which is referred here as psychological flexibility.

In this way the value of flexibility varies in our body as per the overall system requirement. The proposed grid is just an illustration of variations in degree of

flexibility in the human body. Moreover, it has been assumed that corporate organizations are analogous to human body which has optimum degree of flexibility; the value of flexibility at different places in human body can be imitated to make recommendations to the organizations.

#### 9.4 The flexibility continuum

There is no unique value of flexibility that could fit all circumstances. The value of flexibility varies with the functional requirement of the body. So it can be said that a flexibility continuum exists in our body, the extremes of which demonstrate very high and very low flexibility. In between there are varying degree of flexibility such as moderately high, moderate, and moderately low as shown in Figure 9.2.

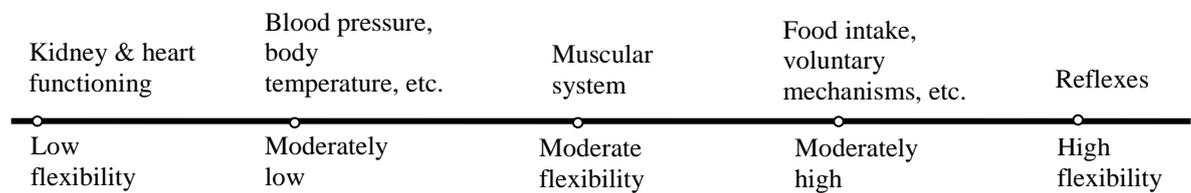


Figure 9.2: The human body flexibility continuum

The flexibility continuum in human body can be described by taking different subsystems or mechanisms with flexibility value ranging from low to high. For example, we have body reflexes on extremely high point of the continuum, whereas critical life supporting subsystems are on other extreme of the continuum. The organs and systems involved in physical mobility are in middle of the continuum. The physiological processes with autonomy e.g. food intake is on moderately high continuum position and controlled physiological processes with a narrow range of operation e.g. blood pressure, body temperature etc. are on moderately low flexibility continuum position.

The human body flexibility continuum is another form of flexibility valuation grid based on which important recommendations can be made to current organizations that also require different form and degree of flexibility in different parts of their businesses. According to Volberda [17], there are four different types of flexibility which can also be viewed as continuum from most stable to most responsive (Figure 9.3). Moreover, the degree of flexibility also varies with environmental turbulence and business agility.

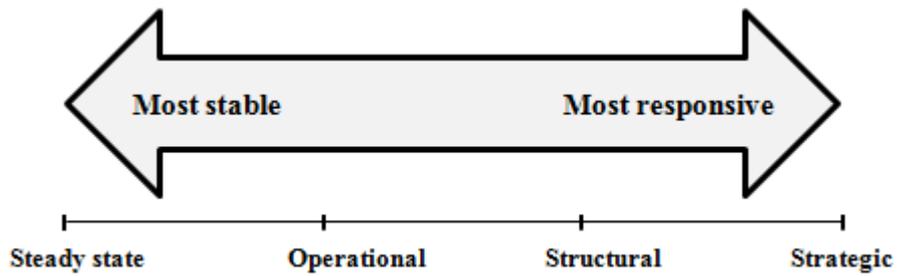


Figure 9.3: The flexibility continuum [17]

Figure 9.4 (a & b) shows different trends organizational flexibility based on environmental uncertainty and agility of organizations. Here 5 different flexibility modes have been demonstrated. Organisations can have moderate flexibility, Low flexibility, high flexibility as shown in Figure 9.4 (a) or they may be transforming from low to high or high to low flexibility modes as shown in Figure 9.4 (b) depending upon their own vision and business environment.

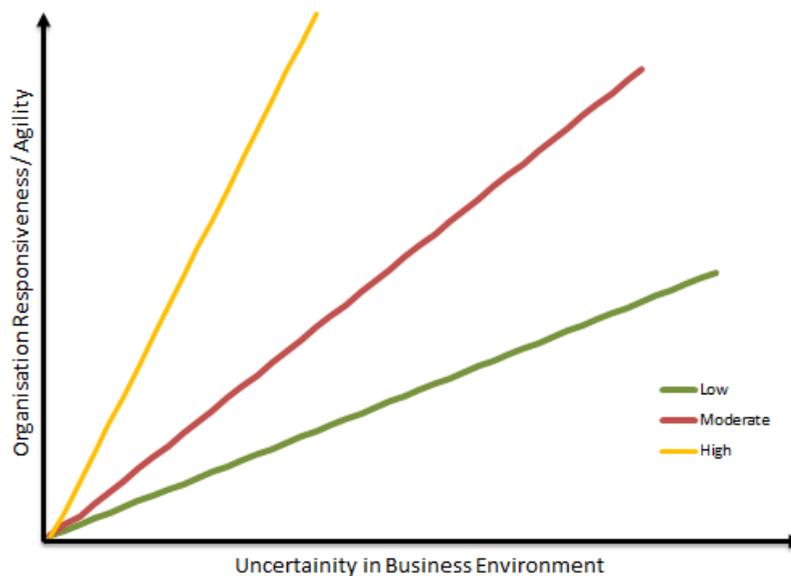


Figure 9.4 (a): Trend showing low, moderate and high flexibilities

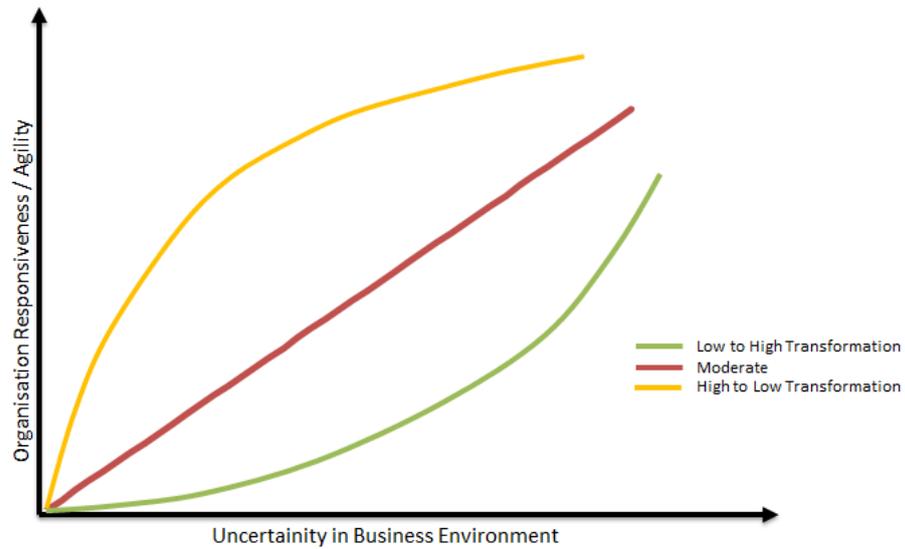


Figure 9.4 (b): Trend showing organization flexibility transformation modes

Examples of flexibility in corporate organizations for meeting unanticipated requirements are: creating variable capacity to meet fluctuating demand pattern, developing multi-skilled manpower that would enable the organization to handle unprecedented job requirements at lower manpower costs. However, such flexibility initiative in organizations would require certain preparations, like the variable capacity systems would entail higher initial costs of change in technology; multi-skilling would involve higher training costs of employees on multiple skills. Furthermore, inspired from human body flexibility continuum, organizations can create their own flexibility continuum to distinguish the extent of flexibility required at different areas.

## 9.5 Conclusions

In order to deal with changing environment, the businesses are supposed to create systems that are flexible to use in terms of anticipated or unanticipated future changes that might take place. With flexibility we can find feasible solutions to multiple criteria with incompatibility in goal programming which rigid multiple objective linear programming fails to give. So, rigidity erodes the options while flexibility opens wider choice-hence better decisions to fit the situation. Based on this philosophy, in this chapter importance of flexibility is examined by analyzing its varying degree in human body. It has been observed that there is optimal degree of

flexibility in human body. It has also been observed that the flexibility should be offered to any system based on its functional requirement and its implication to the overall system. A flexibility valuation grid is proposed in this chapter based on which insights to inculcate optimal degree of flexibility can be drawn.