



Impact of adoption of yoga way of life on the emotional intelligence of managers

Hasmukh Adhia^a, H.R. Nagendra^b, B. Mahadevan^{c,*}

^a 12, Judges Bungalows, Judges Bungalow Road, Bodakdev, Ahmedabad, India

^b Swami Vivekanand Yoga Anusandhan Samsthan, Gavipuram Circle, Kempegowda Nagar, Bangalore, India

^c Operations Management, Indian Institute of Management Bangalore, Bannerghatta Road, Bangalore 560076, India

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Abstract The popular perception that a high intelligence quotient (IQ) is not necessarily a good predictor of professional and personal success has led to a growing interest in understanding the role of emotional intelligence (EI) in improving the performance of business managers. This paper studies the impact of the yoga way of life on EI using data collected from 60 managers in a business enterprise and reports enhanced EI as a result of the practice of yoga. The results indicate the importance of yoga as an integral element in improving managerial performance in organisations and the need to further explore this construct in greater detail.

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Introduction

One of the important preoccupations of top management is the improvement of managerial performance. Over the last several decades management researchers have developed constructs to identify the factors that influence managerial performance, and have sought to provide a framework to explain performance. In this context, there is a popular

perception that individuals of seemingly average intelligence often do well in their professional and personal lives, whereas people with high IQ often struggle with life's challenges. Therefore, it would be useful to question the assumption that general intelligence is a sufficiently good predictor of success in life. Earlier researchers have suggested that other attributes may be better determinants (Goleman, 1995; Sternberg, 1993, 1996; Tapia, 2001).

There is a vast repository of knowledge and accumulated experience in India on the role of yoga as a way of life in enabling individuals to lead successful and satisfied lives (see for example Becker, 2000; Srinivas, 1994). More specifically, the *Bhagavad Gita*, which explicates on yoga, sees that yoga begets high efficiency in work (Swami Ranganathananda, 2000), opening up possibilities of connections with managerial performance.

This paper builds on the thread suggested above, utilising the concept of emotional intelligence (EI) defined by earlier researchers to measure managerial performance, and explores the yoga way of life as a potential tool to influence the EI of individuals in a study conducted with managers of a large organisation. To the best of our

* Corresponding author. Tel.: +90 80 26993275; fax: +90 80 26584050.

E-mail address: mahadev@iimb.ernet.in (B. Mahadevan).

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knowledge there has been no previous attempt in this direction.

The paper is organised as follows: In the next section we introduce the concept of EI and motivate the use of this construct by discussing the key findings from earlier research. An introduction to the yoga way of life and its usefulness in improving EI in particular, and managerial performance and satisfaction levels in general follows in the next section. The details of the empirical work carried out as part of this study, and the results, key findings, and their implications are discussed in the later sections.

Our study suggests that the yoga way of life could be a potential contributor to improving the performance of managers, and improving their satisfaction levels. Although the results are based on a single study with a sample of 60 managers from one enterprise, the results are encouraging. Our study motivates further research into this aspect in multiple settings, and the generalisation of the results obtained in the study.

Emotional intelligence

Emotional intelligence (EI) is 'a form of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate between them, and to use this information to guide one's thinking and action' (Salovey & Mayer, 1990, p 5). Goleman (2000) identifies five components of EI—self-awareness, self-regulation, motivation, empathy and social skill (Exhibit 1). An alternative framework as defined by the Consortium for Research on Emotional Intelligence (2004) is presented in Exhibit 2.

In a later work Mayer and Salovey defined EI as the ability to perceive emotions, to access and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual

growth (Mayer & Salovey, 1997, p 5). Their definition of EI refers to the underlying intelligence factors that they feel are necessary in order to develop emotional competence (EC) skills. While the definition of EI is useful for making a distinction between general intelligence and emotional intelligence, the concept of EC is relevant if we have to talk about using EI for organisational success. The EC framework identifies two main categories—personal competence and social competence—with three clusters in the first category and two in the second. Exhibit 2 shows the major dimensions that form the basis of the framework.

A comparison of the dimensions considered by Goleman (1998) and the framework offered by the Consortium for Research on Emotional Intelligence (2004) reveals many similarities, and Goleman's influence on the latter is evident. An analysis of these definitions and characteristics of EI leads us to conclude that EI is different from traditional views of intelligence based on cognitive factors suggesting a different kind of aptitude that is founded entirely on non-cognitive aspects of behaviour (Goleman, 2000).

Goleman's research, conducted in 200 large, global companies reveals that EI—especially at the highest levels of a company—is the sine qua non for leadership (Goleman, 2000). A person can have first class training, an incisive mind, and a large supply of good ideas, but without EI it is unlikely that s/he will make a great leader. Goleman (1998) reports that emotional quotient (EQ) is twice as important as technical skills and intelligence quotient (IQ) for success in jobs at all levels, more so at the highest level in a company. Goleman suggests that the difference between star performers and average ones in senior leadership positions can be attributed more to EQ factors than to cognitive abilities. Emotional quotient has a champion in none other than Mahatma Gandhi who opined, 'I know that ultimately one is guided not by the intellect, but by the heart. The heart accepts a conclusion for which the intellect subsequently finds reasoning... Man often finds reason

Exhibit 1 The five components of emotional intelligence at work.

	Definition	Hallmarks
Self-awareness	The ability to recognise and understand one's moods, emotions and drives, as well as their effect on others	Self-confidence Realistic self assessment Self deprecating sense of humour
Self-regulation	The ability to control or redirect disruptive impulses and moods; comfort with ambiguity A propensity to suspend judgment—to think before acting	Trustworthiness and integrity Openness to change
Motivation	A passion to work for reasons that go beyond money or status A propensity to pursue goals with energy and persistence	Strong drive to achieve Optimism, even in the face of failure Organisational commitment
Empathy	The ability to understand the emotional makeup of other people Skill in treating people according to their emotional reactions	Expertise in building and retaining talent Cross-cultural sensitivity Service to clients and customers
Social skill	Proficiency in managing relationships and building networks The ability to find common ground and build rapport	Effectiveness in leading change Persuasiveness Expertise in building and leading teams

Source: Goleman (2000).

Exhibit 2 Framework for emotional intelligence.

Personal competence		Social competence	
Self-awareness	Emotional awareness Accurate self assessment Self confidence Leveraging diversity Political awareness	Social awareness	Empathy Service orientation Developing others
Self-regulation	Self control Trustworthiness Conscientiousness Adaptability Innovativeness	Social skills	Influence Communication Leadership Change catalyst Conflict management Building bonds Collaboration and cooperation Team capabilities
Self-motivation	Achievement drive Commitment Initiative Optimism		

Source: Consortium for Research on Emotional Intelligence (2004).

in support of whatever he wants to do' (in Chakraborty & Chakraborty, 2008, p 41).

Researchers have long debated whether leaders are born or made. One can see a similar debate about EI. Are people born with certain levels of empathy, or do they acquire empathy as a result of life's experiences? It appears that the answer is 'both'. Scientific inquiry strongly suggests that there is a genetic component to EI, and psychological and developmental research indicate that nurture plays a role as well. While the debate on the relative influence of nature and nurture continues, research and practice clearly demonstrate that EI can be learned (Goleman, 2000).

Yoga way of life and its relevance to emotional intelligence

Yoga way of life

Yoga is one of the six foundations of Indian philosophy and has been used for millennia to study, explain, and experience the complexities of the mind and human existence (Feuerstein, 1998). Patanjali, an ancient yoga sage, in his *Yoga Sutras*, defined yoga as a technique used to still the mental fluctuations of the mind to reach the central reality of the true self (Iyengar, 1966). Patanjali's *Yoga Sutras* outline a skilful way of conducting life that fosters moderation and harmony (Becker, 2000). These guidelines, which include ethical and moral standards of living in addition to postural and breathing exercises, can be used to foster spiritual growth and evolve one's consciousness.

The yoga way of life encompasses the philosophy of Karma yoga (path of detached action), Jnana yoga (knowledge of self), Bhakti yoga (trust in the supreme order), and Raja yoga (a prescribed set of eight steps also known as Ashtanga yoga). Karma yoga is the path of focusing on the action on hand without selfishness, ego and carelessness as prescribed by Lord Krishna in the *Bhagavad Gita* (Swami Ranganathananda, 2000). Jnana yoga is the

path of knowledge of self (atman) propagated by Adi Shankaracharya through an interpretation of the *Upanishads*, considered the most ancient books of Indian wisdom. Bhakti yoga is the path of total surrender to the supreme power which is based on deep rooted faith in God's justice system. Raja yoga is the path of control of mind though the practice of Ashtanga yoga or the eight fold path given by the sage Patanjali in his *Yoga Sutras* (Swami Satyananda Saraswati, 1976). The eight steps of Ashtanga yoga are yama, niyama, asana, pranayama, pratyahara, dharana, dhyana and samadhi (see Swami Satyananda Saraswati, 1976).

Based on a review of the literature, we hypothesise that practising the yoga way of life may bring about a complete transformation of one's personality, on the physical, mental, emotional and spiritual levels.

Yoga psychology conceives of the self in terms of different levels of being. The inner-most core (atman) is covered by five layers. These layers correspond to a step-wise ladder, leading inward to the atman. The journey inward forms the basis of growth and development—the biological evolution from protozoan to man, the psychological evolution from child to adult, and the enhancement of consciousness from cognitive to universal consciousness, wherein there is no ego, and there is the realisation that the concerns and needs of all people are the same, that what is good for one is good for all. In this growth process, feelings and emotions are accepted as having a place in the general scheme; they are not considered wrong or repressed but are transformed and redirected (Srinivas, 1994).

Chakraborty and Chakraborty (2008) see the human personality as a composite of four subtle variables: reason, will, emotion and conscience. In order to integrate the personality, these four factors must be habituated to work in harmony instead of working at cross purposes, and this requires effort. Further, the expression 'integrated personality' is often employed to imply the same characteristics that are expected of a holistic, self-possessed personality.

An analysis of the work of several religious and other scholars provides a basis to conclude that the yoga way of life significantly impacts leadership traits and improves EI and EC. Swami Vivekananda averred that the highest man is calm, silent and unknown (Swami Vivekananda, 2006). The highest man as a leader is calm in order to understand situations, and to think and select the best option for his followers' development. He is silent in order to listen to himself and to his subordinates, to control his prejudices and conditioning, and to meet others' hearts. Finally, the leader chooses to remain unknown in order to be free from possible egotistic benefits. According to Sri Aurobindo (in Chakraborty & Chakraborty, 2008), 'The more complete the calm, the mightier the yogic power, the greater the force in action' (p 201).

According to Swami Tapasyananda (1984), man is an integrated whole, his mind being a complex of feeling (emotions), will and intellection. In the four spiritual disciplines (i.e. the four types of yoga—Raja, Karma, Bhakti and Jnana), one of these dominates, while the others, though subordinate, complete the discipline. This is the integrated yoga of the *Bhagavad Gita*. Swami Vivekananda too, in his interpretation of Vedanta, gives an equal place to all the four yogas.

The role of yoga in the development of impersonality or the spiritual personality has been well explained by Sri Aurobindo in his classic work, *Essays on the Gita* (Sri Aurobindo, 1942). According to Sri Aurobindo, yoga and knowledge are the two wings of the soul's ascent. He states, 'By yoga is meant union through divine works done without desire, with equality of soul to all things and all men, as a sacrifice to the Supreme, while knowledge is that on which this desirelessness, this equality, this power of sacrifices is founded' (p 191).

Awareness of self within and self in others, leads us towards 'something higher than the ego, an infinite, an impersonal, a universal existence ... In other words, man's way to liberation and perfection lies through an increasing impersonality...' There are certain signs which are indicative of the development of impersonality. These are: the absence of personal egoism; freedom from desire; the awareness of an impersonal force of love or will; perfect equality between the soul and nature; and fullness of inner joy and peace (Sri Aurobindo, 1942, pp 121, 123).

Dwelling on the art of meditation, Swami Anubhavananda and Kumar (2007, p 283) hold that it 'strengthens our muscles of awareness and choice', helps in training our mind and changing our attitudes. Proposing 'emotional maturity' as another attribute to be cultivated, the authors posit that it can be cultivated through self-contemplation, which constitutes evaluating one's emotions, and identifying and expressing feelings in a poised state of heart and mind. This is a state where an individual recognises his inner self and responds accordingly (p 298).

Relating the philosophy of the *Bhagavad Gita* to making work an enjoyable experience, Swami Bodhananda Saraswati (2007) reiterates the need to engage in the world but remain detached from the fruits of one's work and to not react to the results of one's work. Further, he stresses that it is very important to live in constant awareness of oneself so that one has power over one's thoughts, and can choose responses to the world as per one's values. This is the power that Patanjali's Ashtanga yoga enunciates

through the principle of controlling or mastering the thought modifications of the mind (Swami Bodhananda Saraswati, 1998).

Patanjali's Ashtanga yoga encompasses cognitive learning, moral conduct, physiological practices and psychological therapy. The first two steps—yama and niyama—seek and shape external behaviour and thought patterns and thus minimise disturbances in the mind and the body. The handling of emotional contamination and the removal of negative emotions such as anger, jealousy, greed, attachment, ego, and an excessive desire for objects are very important in adopting the yoga way of life. The yama and niyama stages of Ashtanga yoga enable an individual to eradicate such negative contamination through sustained and conscious efforts. Through such a process, the individual attains a state of 'chittasuddhi' or purity of mind, which is considered to be the starting point of the yoga way of life. Sri Aurobindo too (Chakraborty & Chakraborty, 2008) stresses the need for the 'chitta' to be purified before clarity and right knowledge dawn.

On the behavioural side, abstention is sought from violence, falsehood, dishonesty, sexual excess and acquisitive tendencies. On the cognitive moral side, the ideals prescribed are purity, contentment, austerity, self study and forbearance. The stages of asana and pranayama are meant for disciplining the body and regulating subtle energy flows. In the fifth stage of prayahara, secondary input is regulated so that the mind is not distracted. The stages of dharana, dhyana and samadhi are for uplifting one's spiritual self and for heightening consciousness.

According to Patanjali's *Yoga Sutras* (Swami Satyananda Saraswati, 1976), asana and pranayama practices are supposed to make our body flexible and purify the subtle energy channels of our body. This paves the way for control of one's mind, which consists of four aspects: random mind, intellect, subconscious mind and ego. Yoga works on all these four subtle aspects of our mind, and thereby makes one more self-aware, empathetic, motivated and self-regulated. These are the very qualities known as emotional intelligence.

Yoga and the work life

A series of techniques collectively known as 'yoga' present a rich source for generating indigenous organisational development techniques that may perhaps find better acceptance than imported intervention designs from the West (Srinivas, 1994). 'Originally developed for personal spiritual growth, yoga offers a well formulated approach to planned change' (Srinivas, 1994, p 271).

On the topic of spirituality in the workplace, Sangster (2003) reemphasises that 'it is possible to lead a spiritual way of life without following any particular religious path' (p 16). In Sangster's opinion, spiritual workers are those who think cooperatively and/or altruistically; have a balanced, objective view of the world; listen as much as (or more than) they speak; apply three dimensional bigger picture thinking; believe in a higher driving force and purpose beyond humankind; find the time to think things through objectively; think laterally in order to promote realistic solutions; encourage and empower others selflessly; work open mindedly with a wide range of people;

consistently display integrity and trust; and, expect the best from people without being a soft touch.

Giacalone and Jurkiewicz (2003) stress yet another major advantage of nurturing the spiritual mindset within each worker in the organisation—ethicality. They assert that fundamental aspects of workplace spirituality, such as meaningful work that provides a feeling of purpose, a sense of connection and positive social relations with co-workers, and the ability to live an integrated life in which the work role does not conflict with the essential nature of a person as a human being, may interact to create different perceptions of ethicality within the organisation (p 85).

Most of the work available on the subject of the impact of yoga on work life/management centres around the impact of transcendental meditation (TM) on various aspects of management. Transcendental meditation is the skill of effortlessly minimising mental activity so that the body settles into a state of rest deeper than deep sleep while the mind becomes clear and alert (Orme-Johnson, Zimmerman, & Hawkins, 1992). A review of over 500 experimental studies conducted in over 200 Universities in 33 countries (Orme-Johnson et al., 1992) revealed that TM helps expand consciousness, decrease oxygen intake and stress level, increase basal skin resistance and coherence in the electro encephalo gram (EEG) and virtually suspends breathing up to 1 minute.

At the University of Texas, Orme-Johnson et al. (1992) showed that meditators display a greater physiological equilibrium than non-meditators. They also showed that meditators maintain this equilibrium under stress more effectively than non-meditators. Frew (1974) completed a study that concludes that TM increases individual productivity. Frew found that meditators show increased job satisfaction, a decreased desire to change jobs, better performance, and better relationships with supervisors and co-workers.

Findings on the TM technique relevant to organisational performance include improved cognitive performance (see Orme-Johnson, Alexander, & Hawkins, 2005 for a recent summary of studies), increased self-esteem and higher levels of self-actualisation and development (Alexander, Rainforth, & Gelderloos, 1991), and more effective managerial performance (Torbert, 1987). Previous case studies suggest that large proportions of organisation members practising the TM technique contribute to improvements in organisational performance (Schmidt-Wilk, Alexander, & Swanson, 1996).

Parde and Naidu (1992) report empirical evidence to show that people with a strong orientation to working sincerely without being preoccupied with the outcome experience less work-related stress. Misra (1989) found that effort orientation rather than concern for outcome leads to greater intrinsic satisfaction. Chakraborty (1987, 1993) provides experimental evidence that practising yoga, meditating, controlling breathing and stilling the turbulent mind can enable workers and managers to purify their mind and make it spiritual, expand their self to include others around them, and help them grow and transform themselves without expecting anything in return.

One of the issues that researchers could confront while using a spiritual and philosophical concept such as yoga to address issues on a materialistic plane is whether yoga should be used for the utilitarian purpose of enhancing

a company's performance, and whether a path of individual realisational quest (mukti) can be used to enhance managerial performance. When yoga is interpreted as 'a way to unite with universal consciousness' (yujyate anena iti yogah), it emphasises the individual realisational quest aspect of yoga. However, there are other definitions of yoga which point to the possibility of using it as a method of improving one's quality of living and responses to events.

Yoga is defined as 'skill in action' (yogah karmasu kausalam) in the *Bhagavad Gita* (Swami Tapasyananda, 1984, Chapter 2, Shloka 50) which discusses yoga explicitly, and further states that one must strive for the state of yoga where 'One (is) endowed with ... unperturbed evenness of mind (that) abandons the effects of both good and bad actions' even in this world. The original shloka is as follows:

Buddhiyukto jahati'ha ubhe sukrtā-duskṛte
Tasmad yogaya yujyasva yogah karmasu kausalam

This shloka clearly suggests that yoga can be applied to day-to-day living, which seems largely utilitarian. Sri Aurobindo, (in Chakraborty & Chakraborty, 2008), stating the power of yoga, reiterates that right knowledge becomes the infallible source of right action (yogah karmasu kaushalam) (p 201). To quote Sri Aurobindo fully, 'The more complete the calm, the mightier the Yogic power, the greater the force in action. In this calm the right knowledge comes... The activity of the mind must cease, the chitta be purified, a silence falls upon the restlessness of prakriti; then in that calm, in that voiceless stillness, illumination comes upon the mind, error begins to fade away...clarity establishes itself in the higher stratum of the consciousness, compelling peace and joy in the lower. Right knowledge becomes the infallible source of right action. Yogah karmasu kaushalam.' (p 201).

In the light of the many definitions and descriptions of yoga, referring to the spiritual and the secular quest, we submit that the realisational vs utilitarian divide is artificial. A truly realisational objective has to be all-comprehensive. It is in this context that we have chosen to do empirical research on this subject.

Hypothesis

So far no systematic attempt has been made to conduct a controlled study to identify the impact of adopting the yoga way of life on the emotional intelligence (EI) of managers. We would therefore like to study the relationship between them by hypothesising the relationship between the yoga way of life and its impact on the EI of managers in a business organisation.

Goleman (2000) opines that far too many training programmes intended to build leadership skills, including EI, are ineffective because they focus on the wrong part of the brain.

Emotional intelligence is born largely in the neurotransmitters of the brain's limbic system, which governs feelings, impulses, and drives. Research indicates that the limbic system learns best through motivation, extended practice, and feedback. On the other hand, the neocortex, which governs analytical and technical ability, grasps concepts and logic. It is the part of the brain that figures

out how to use a computer or make a sales call by reading a book. Not surprisingly it is also the part of the brain mistakenly targeted by most training programmes aimed at enhancing EI. Goleman (2000), quoting his research with the Consortium for Research on Emotional Intelligence, maintains that organisational programmes which take a neocortical approach can even have a negative impact on job performance.

We propose a null hypothesis of no impact of yoga way of life on the EI of managers.

Constructs for measurement of emotional intelligence

The scale used for this research was the Self-Reported EI Scale (SREIS) (Schutte et al., 1998), which was developed to reflect Salovey and Mayer's (1990) original ability model of EI and was validated in relation to dimensions of the Trait Meta-Mood Scale (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995) as well as the characteristics usually identified as more relevant to trait models of EI (Goleman, 1995) including alexithymia, optimism and impulse control. This 33-item EI scale assesses multiple aspects of EI including appraisal and expression of emotions, regulation of emotion and utilisation of emotion. Participants rated the extent to which they agreed with each item on 7-point Likert type scales ranging from 1 (strongly disagree) to 7 (strongly agree). The SREIS measure is reported to have good internal consistency and test-retest reliability (Schutte et al., 1998), and has demonstrated predictive validity.

There are other scales available to measure the EI construct—the Multifactor Emotional Intelligence Scale (MEIS), and a more recent version of this measure viz the Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT), developed to measure the ability to monitor, discriminate and manage emotions (Mayer & Salovey, 1997; Mayer, Salovey, & Caruso, 2002); the Emotional Quotient Inventory (EQ-i) to measure psychological well-being and adaptation proposed by Kemp et al. (2005), and the Emotional Competence Inventory (ECI) for measuring social and emotional competency in the workplace (Goleman, 1995, 1998). MSCEIT was developed as an ability- or performance-based measure of the EI construct. On the other hand, other measures such as the EQ-i or ECI are self-report measures which may reflect 'perceived' EI, rather than actual capacity. While the debate on the best way to measure EI continues, some researchers have also argued that the different conceptualisations and measurements of this construct are more complementary than contradictory, and that most models and measures of EI share some common elements, including the capacity to perceive and regulate emotions in oneself as well as in others (Ciarrochi, Chan, & Caputi, 2000; Emmerling & Goleman, 2003; Goleman, 2001; Palmer, 2003).

Some researchers maintain that self-report questionnaires are subject to response bias which may obscure findings concerning the construct of interest (Moorman & Podsakoff, 1992). Individuals who are required to complete self-report questionnaires to apply for or keep a position, may consciously or unconsciously provide answers that are socially desirable (James & Mazerolle, 2002). Therefore,

the way in which individuals respond on self-report questionnaires may be a potential source of inaccuracy (Paulhus & Reid, 1991), which may produce negative consequences for organisations. Self-report measures of EI also have the inherent propensity to be susceptible to socially desirable responding.

Downey, Godfrey, Hansen, & Stough, (2006) observe a weak relationship between EI and social desirability (SD). Social desirability was experimentally manipulated by examining the relationship between EI and SD in two groups. The first group ($n = 34$) completed the questionnaires anonymously and were told that no feedback would be provided. The second group of participants ($n = 45$) were informed that they would receive detailed feedback about their EI. Emotional intelligence did not significantly differ between the two feedback conditions. The results indicated that there is no significant or substantial relationship between self-report EI and SD. In view of this finding our use of self-report questionnaires may not distort the findings of our study significantly.

Yoga way of life and emotional intelligence: empirical study

The present study was conducted in a manufacturing company in the state of Gujarat in western India, in one of the units manufacturing viscose staple fibre (VSF). The organisation is a flagship company of a large conglomerate, which ranks among India's largest private sector companies.

The VSF plant where this study was conducted was set up in 1996. The unit where this study was conducted has about 120 people in the managerial cadre and more than 1000 in the workers' category. The average total work experience of the sample group is 16.11 years. Most of the employees reside in the township of the company, which made it easy to conduct the intervention of yoga.

The salient aspects of the study methodology are summarised below:

- The managers of the company were given the option of participating in this study after the purpose and the modality of this experiment were explained to them. One of the expectations was regularity of attendance for the theory and practice sessions of the proposed study. Written consent for participating in the experiment was obtained.
- Those who agreed to participate in the study were divided into two equal groups of 42 each; Group 1 was designated as the yoga group and group 2 as the physical exercise group, which was the control group for this experiment.
- The yoga group was given 30 hours of yoga practice (75 minutes every day) and 25 hours of theory lectures on the philosophy of yoga spread over six weeks. The theory lectures were given by the first author of this article and included topics such as definitions of the yoga way of life, implications of the four types of yoga (Raja yoga, Karma yoga, Jnana yoga and Bhakti yoga) on life, analysis of the aspects of true happiness in life, Ashtanga yoga steps and the central theme of universality of consciousness as propounded in these texts.

The practice sessions for the elements of yoga which included asanas, pranayama and relaxation were conducted by a well-trained yoga instructor.

- The control group was also given training in normal physical workout for an equal number of hours, and lectures on the success factors in life based on modern thought (that seeks to achieve success by systematic control of factors within one’s area of influence). This was necessary in order to obviate the possibility of the Hawthorne effect on the control group. The topics for theory given to this group included success and happiness, the importance of attitude, self-image, good relationship with others, goal setting, the power of the subconscious mind, communication, motivation and leadership. The practice given to this group included fast exercises such as spot jogging, bending, body rotation, hand and leg movements etc.
- In order to test the hypothesis, EI was measured for both the groups, before and after the study, with the help of a standard self-reported questionnaire. In addition, measurements of certain physical parameters such as weight, body mass index, blood pressure, and blood sugar were taken for all, before and after the study.
- The required data was taken before the commencement of the study on 17th September, 2007. The intervention to both the groups was simultaneously done between 18th September and 24th October, 2007. The post-study measurement was done on 24th October, 2007.
- Out of the total of 42 in both groups, there were some who did not attend all the theory and practice classes on several days, and hence only the top 30 (in terms of regularity) were included for both groups in the final sample for the analysis. This came to a minimum attendance figure of 65% approximately for both groups. The profile of this group is summarised in Exhibit 3.

Exhibit 4 schematically shows the study methodology and the group composition.

As mentioned earlier, yoga should not be equated with asana practice alone. It encompasses a) a moral code of conduct (as given in yama and niyama), b) physical practices (such as asana and pranayama), c) the development of a deep rooted trust in God’s justice system (Bhakti yoga), d) the adoption of the attitude of putting in one’s best in any piece of work without worrying about the possibility of adverse results (Karma yoga), and e) meditation on the nature of self.

Exhibit 3 Profile of sample.

		Group		Total
		Yoga	Physical	
Age	21–50	24 (80.0%)	26 (86.7%)	50 (83.3%)
	51 and above	6 (20.0%)	4 (13.3%)	10 (16.7%)
Level	Line level	17 (56.7%)	19 (63.3%)	36 (60.0%)
	Middle level	7 (23.3%)	6 (20.0%)	13 (21.7%)
	Top level	6 (20.0%)	5 (16.7%)	11 (18.3%)

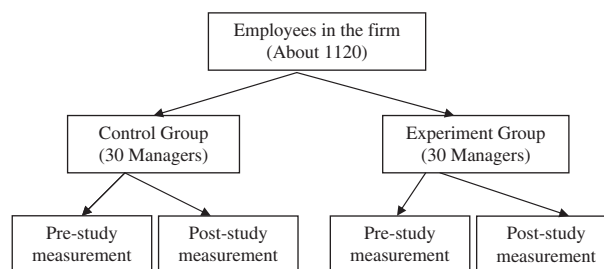


Exhibit 4 Schematic representation of the study plan.

In this experiment rigorous training of 55 hours spread over 6 weeks was organised for the yoga group to instil all these five aspects in the experiment group.

Results and implications

Statistical analysis of the data was done using the SPSS. The sample profile given in Exhibit 3 indicates that 80% and 86% of the participants from the yoga group and the control group respectively were from the age group of 21–50, while the rest were above 50. Similarly, 20% of the yoga group and 17% of the control group were from the top management (i.e. deputy general manager and above), while 57% of the yoga group and 63% of the control group were from the line level managers (deputy managers and officers).

In the validity test conducted, the pre-experiment result of the 33-item scale of EI had a Chronbach’s alpha of 0.84 while that of the post-study data of EI showed alpha of 0.85. The average EI score for the yoga group and the control group was 5.50 and 5.61 respectively before the experiment. The average EI score after the experiment for the yoga group and the control group was 5.97 and 5.55 respectively (Exhibit 5). In the paired *t*-test of the pre- and post- study data, EI showed significant enhancement in the yoga group ($p = 0.005$), but not in the physical exercise group (Exhibit 6). The results further showed that while the difference in the average EI between the yoga group and the physical exercise group was not significant prior to the experiment (thus supporting random choice of samples), the same was statistically significant at the end of the experiment with $p = 0.001$ (Exhibit 7).

According to Swami Rama et al. (1976), yoga psychology integrates the behavioural and introspective approaches to growth. It provides a perspective from which one can become disengaged from involvement in the unhappy personalities one has created for oneself and in the negative role one has adopted. It moves quickly to a training

Exhibit 5 Average scores of emotional intelligence (EI) (pre- and post-intervention).

	Group	<i>n</i>	Mean	Std deviation
Average scores of pre-intervention EI	Yoga	30	5.50	0.63
	Physical	30	5.61	0.57
Average scores of post-intervention EI	Yoga	30	5.97	0.48
	Physical	30	5.55	0.46

Exhibit 6 Paired *t*-test for emotional intelligence (EI) for yoga and physical group.

Group		Paired differences			<i>t</i>	df	Sig (2 tailed)
		Mean	Std deviation	Std error mean			
Yoga	Average of post-intervention EI – pre-intervention EI	0.47	–0.85	–0.15	3.03	29	0.005
Physical	Average of pre-intervention EI – post-intervention EI	–0.06	–0.59	–0.11	–0.57	29	0.574

programme for changing habits, thought patterns and self concepts (p 305).

In this context, spirituality in the workplace is of much interest to researchers. Mohamed, Wisnieski, Askar, & Syed (2004) present four interesting advantages in their review of workers who maintain the spiritual mindset. First they claim that the stronger the spiritual factor of personality, the more tolerant the person is of work failure and less susceptible to stress (p 102); the more s/he favours the democratic style of leadership, and the higher is her/his trust in and tolerance of human diversity; the more s/he exhibits altruistic and citizenship behaviour, and the more is her/his commitment to the organisation and work group. Our study is consistent with these findings, indicating that a systematic adoption of the yoga way of life can result in better EI among managers, thus paving the way for their better performance as managers.

In most organisations, leaders play a pivotal role in driving performance. There are several leadership training programmes being conducted by successful companies. But the yoga way of life is seldom taught systematically as part of these training programmes.

Currently yoga methods are taught in India and several Western countries in a more general platform as a means to de-stress individuals and improve personal satisfaction. It would be beneficial to provide systematic exposure to the knowledge enshrined in the texts emphasising the yoga way of life to all managerial cadres of companies. Our study shows that such an initiative would help them personally as well as professionally. They can become more self-aware and self-regulated individuals, with a proper perspective of life and various relationships. In the Indian context, the assimilation of this knowledge could be better and easier, since Indians would probably have some prior exposure to these concepts. Psychological counselling sessions could include a significant component of yoga practices to improve the efficacy of such interventions.

There are certain aspects that need to be followed during the implementation of these ideas. First of all, the top managers of the company have to be convinced about the

utility of this idea. They should themselves have the necessary trust in this philosophy and the results it can bring. One of the potential challenges to the yoga way of life is the apprehension of 'renunciation effects' in a productive working environment characteristic of business organisations, which look to nurture the 'killer instinct' of their executives. Such apprehensions are the result of a lack of understanding of the true concepts of yoga. For example, far from being against 'goal orientation', the dynamic concept of karma yoga enables an individual to be free from all worries and propels him to action immediately. Also a person who is not excessively worried about the results would be a true risk taker, who will take tough decisions in the best interests of his organisation.

Once convinced about the utility of this training in the yoga way of life, the tougher challenge lies in finding the right people to train company executives. Further, the training has to be continuous, and repeated periodically. Acceptance of the yoga way of life and the right environment for it has to be built into the company policy. Reciprocally, the company policies have also to pass the test of the yoga way in terms of adhering to the ethical-moral code prescribed in yama and niyama.

Conclusions

Our study has been successful in establishing the usefulness of the yoga framework for the enhancement of the emotional intelligence of an employee. However, the key to success lies in giving employees total knowledge of yoga—both theory and practice—in a systematic manner. If the trainer himself is not perfect, the results may vary. Moreover in the current study we have not attempted to analyse whether the age profile has an impact. Conducting a larger study with separate samples for various age profiles may give more insights.

The results obtained in this study point to the need to conduct similar experiments in other organisational settings and with a larger sample size. As in the case of similar experiments, different instruments for measuring EI may be

Exhibit 7 Independent *t*-test comparing two groups pre- and post- intervention for emotional intelligence.

Comparison between two groups (Equal variance assumed)	Levene's test for quality of variance		<i>t</i> -test for equality of means				
	F	Sig.	<i>t</i>	df	Sig (2 tailed)	Mean difference	Std error difference
Pre-intervention	0.048	0.828	–0.742	58	0.461	–0.115	0.155
Post-intervention	0.235	0.630	3.407	58	0.001	0.414	0.121

tried in place of the self-report format used here, so that the social desirability angle may also be accounted for. It would also be useful to study dimensions such as the extent of 'burn out' of the positive effects of the yoga way of life through longitudinal studies of EI and EC.

The study also opens up debates on some of the larger issues related to the theme of yoga, managerial effectiveness and the use of statistical tools in empirical study. At a philosophical level, the yoga way of life seeks to unite the individual consciousness with universal consciousness. At the empirical level, the efficacy of scientific scrutiny needs to be tested by conducting more studies. Also it may call for handling more qualitative data and experiential data than quantitative data. Developing better research methodologies to handle these unique aspects is another area that may require further work in the future.

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