

Evolution of “Universal Business Excellence Model” incorporating Vedic philosophy

Anil K. Sharma and Balvir Talwar

Anil K. Sharma is Faculty, Department of Management Studies, Indian Institute of Technology Roorkee, Roorkee, India. Balvir Talwar is Deputy General Manager (Business Excellence), Bharat Heavy Electricals Limited, Haridwar, India and Research Scholar, Department of Management Studies, Indian Institute of Technology Roorkee, Roorkee, India

Summary

Purpose – The purpose of this paper is to evolve the Universal Business Excellence Model (UBEM) with the integration of common features of business excellence models (BEMs) with universal laws of nature to facilitate multi-dimensional business growth.

Design/methodology/approach – Business has focused on accumulation of wealth at the cost of society for decades. It has resulted in socio-economic, political and environmental problems and led to the evolution of quality, environmental, HSE systems and BEMs, etc. Vedic philosophy emphasizes that a core function of business is to create wealth for “Well being of society”. To evolve UBEM, synthesis of BEM, e.g. the Malcolm Baldrige National Quality Award (MBNQA), the European Quality Award (EQA) and the Deming Prize has been undertaken to identify the common and unique issues. In addition, certain issues not adequately addressed in BEM but emphasized in Vedic hymns have been empirically tested to check their applicability in the current business scenario.

Findings – The paper finds that UBEM stresses that profit is not the ultimate objective of the business, but a means to achieve the sustainable success. Interestingly, professionals of various age groups, different countries and backgrounds have overwhelmingly supported the concept in empirical study.

Research limitations/implications – Hymn from Rig-Veda explains that physical as well as moral laws govern the entire universe. Vedic philosophy derives infinite creativity, actions and power from the universal laws of Nature. This paper is an attempt to integrate philosophy of the East with modern practices of the West. It is an example for researchers to explore several new areas to integrate the best of the both (East and West) and provide a new direction to the mankind.

Practical implications – The use of the UBEM will make it easier for practicing managers to reach the right decisions for sustainable success.

Originality/value – The UBEM identifies the “values and process flow” and measurement of “multiple bottom-lines” as the key to success. Integration of “organization vision” with “universal wellbeing” leads to sustainable success and provides an access to the infinite power of “cosmic energy” to ensure multi-dimensional growth.

Keywords Business excellence, Oriental philosophy, Sustainable development

Paper type Research paper

Introduction

Since time immemorial, the search for excellence and all-round growth has been the important objective of mankind. As mankind progressed, various management theories have evolved and been practiced to attain excellence. Although these management theories were found most suitable in a given environment, the same theories did not give the desired results in different environments. This led to development of other management theories to overcome shortcomings of the previous ones. However, with practice of each theory, managers learned a new lesson to attain excellence. An example to prove this notion is the famous book by Peters and Waterman (1982), *In Search of Excellence – Lessons from America's Best-run Companies*, providing many suggestions for success criteria behind excellence. Today, we know that many of the excellent companies (the USA's best-run

companies) identified in their studies later became unsuccessful. However, Peters and Waterman reminded the world that out of the 7-S criteria, 5-S software criteria i.e. systems, shared values, skills, staff and style are often overlooked, and more weight is given to the remaining 2-S hardware criteria i.e. strategy and structure. To attain excellence higher weight should be given to software criteria (Dahlgaard and Dahlgaard, 2005; Hermel and Remis-Pujol, 2003). Before we proceed further to explore the concepts of business excellence, let us try to understand the core concepts of excellence itself.

The core concepts of excellence

Excellence means perfection. Excellence lies in beauty of flowers. As one approaches perfection in one's work, one approaches excellence. Man can attain excellence or perfection through his/her actions. Lord Krishna says in *Bhagvad Gita*, "Yoga is excellence in action (Karma)". Thus the simplest way to attain God is to bring excellence in all our actions. The dictionary meaning of excellence is "Quality of highest order".

In the management literature, the term "Quality" has different meanings and has been variously defined as excellence (Peters and Waterman, 1982), value (Feigenbaum, 1983, p. 112), fitness for use (Juran and Gryna, 1988), conformance to specifications (Levitt, 1972; Gilmore, 1974), conformance to requirement (Crosby, 1979), loss avoidance, defect avoidance (Crosby, 1979), meeting and/or exceeding customers' expectations (Grönroos, 1983; Parasuraman *et al.*, 1985), etc. These definitions show different aspects of quality or excellence. Some eminent thinkers, e.g. Deming, Ishikawa, Peters, Imai etc. have advocated a bigger picture or role of quality as the foundation stone of excellence; where as other eminent experts like Juran, Crosby have focused on the immediate needs of the business. Jensen, 2000 argues that corporations should have a single-market value objective; to increase the long-run market value of the firm, which is defined as the sum of the values of all financial claims on the firm. Contrarily, many practitioners seem to be guided by its practical version i.e. short-run maximization of stock-value. Schaffer and Thomson (1992) bring another dimension by questioning whether final results are enough to define excellence or whether intermediate points should also be taken into the account. In strategic and change management areas, result driven and activity-centered programs compete against one another. Thus the purpose of excellence and ways to achieve excellence could be distinguished. Although the above views of eminent experts indicate completely different parameters to focus, a deeper look into their views indicate that these arise from the same set of beliefs or values, e.g. honesty in dealing with stakeholders, truthfulness and data transparency, management commitment, dedicated efforts for improvement, etc. As per Indian mythology, "*Swa-Dharma*" or "self-ethics" is synonymous with excellence. Every one in the organization needs to perform his/her duty correctly and completely every time to attain it.



Garvin (1984) identifies eight basic dimensions of quality as performance, feature, reliability, conformance, durability, serviceability, aesthetics and perceived quality. Besterfield *et al.* (2001, pp. 5-11) add "safety" as the ninth dimension to quality. These dimensions are somewhat independent and therefore a product can be excellent in one dimension and average or poor in another. Garvin (1987) further suggests that a company can create a niche in the marketplace by focusing only on a few of these dimensions that competitors ignore. Very few products excel in all nine dimensions. For example the Japanese were cited as producing high quality cars in the 1970s based only on the dimensions of reliability, conformance and aesthetics.

Indian mythology identifies the 16 dimensions of quality or excellence in human life. Many ancient kings have role modeled these dimensions as the way of their life and inspired others. For example Lord Rama attained excellence in 14 dimensions (14 *Kala Sampuran*) and Lord Krishna attained excellence in all the 16 dimensions (16 *Kala Sampuran*). Scriptures provide the global perspective to quality with focus on ethics/values to attain sustainable growth and human wellbeing (Sharma and Talwar, 2004). Thus, in future, more dimensions of quality or excellence will unfurl, forcing organizations to develop their unique brand image to survive in business. With the conversion of the global market into the global

village some focus on issues like ethics, attitudes, and innovations as key differentiators for organization's success are already visible (Peters, 1999).

We may conclude that the organizational quest for excellence has resulted in varied conceptualization and paradigms (Hermel, 1997), and a global perspective of organization is emerging as a result of the increasing integration of different functional aspects of quality through total quality management (TQM) (McDonald *et al.*, 2002). Managers often misunderstand that the excellence demonstrated in one or other aspect/characteristic in past successes are exhaustive. It led to the failure when a new dimension of the quality or excellence unfurls. Thus, the risk of bias always remains in any model and/or list of attributes because they are always a simplification of realities in which companies are operating (Dahlgard and Dahlgard, 2005; Harrington, 2004).

The authors feel that the risk of bias can be minimized if the findings are tested on the basis of historical learning and wisdom enshrined in Vedic philosophy. Thus, it would be necessary to understand the essence of Vedic philosophy before applying the same. However, to minimize the risk of failure with use of select best practices and enhance business growth in a competitive environment business excellence models (BEMs) have been evolved across the world. In the following section a comprehensive study of these BEMs is presented. It is followed by the essence of Vedic philosophy. And with integration of the BEMs and Vedic philosophy, the Universal Business Excellence Model (UBEM) has been evolved.

Comprehensive study of BEMs

To pursue excellence in an effective way and to recognize the performance excellence of the organizations, several countries established national quality awards (NQAs)/BEMs in the late 1980s and 1990s. The participating companies using BEMs across the world have reported that their implementation has not only improved quality, but also led to improvements in market share, customer satisfaction, profit, processes, supplier performance, employee morale and competitiveness. A report of the UNECE (2004) says that there are at least 90 quality and business excellence awards in at least 75 countries.

Major BEMs are the Malcolm Baldrige National Quality Award (MBNQA) of the USA, the European Quality Award (EQA), and Deming Prize of Japan. They have consolidated as worldwide references for achieving organizational excellence and are the basis of most NQAs/BEMs (Bohoris, 1995; McDonald *et al.*, 2002; Hughes and Halsall, 2002; Zairi and Youssef, 1995; Miguel, 2001; Puay *et al.*, 1998). In a study conducted by SAI Global, Martin Searle (2005) reported that the NQA of 53 countries are based on MBNQA. To evolve an international quality award, Kozo and Yoshizawa (2005) report that EQA is being used in 26 countries. In a comparative study of NQAs of 53 countries Tan *et al.* (2003) report that most NQA models are based on the MBNQA and EQA. The key findings of the comprehensive study of BEMs are summarized below:

- MBNQA, EQA and the Deming Prize are the three major awards recognized worldwide and are being used as the “mother” of other BEMs/NQAs of various countries. These awards have undergone changes over the years. Most of the other BEMs/NQAs are relatively new and are still accumulating their experiences. They may undergo changes over time.
- Companies report that their process orientation, customer orientation and improvement orientation improved by participation in the award process.
- Japan has a culture of learning, working and thinking as a group. Thus, the Deming Prize focuses on building consensus (shared decisions), aligning people with processes and forming cooperative processes with suppliers to achieve higher quality. On the other hand, the USA and Europe have cultures of more diversified thinking, thus MBNQA and EQA focus on unleashing the creative powers of people, fostering entrepreneurial challenges and harnessing new technologies.
- Although NQA programs provide a solid foundation to assess company performance and encourage the search for competitiveness in the global marketplace, the winning of

award is not a panacea for all problems. Achieving competitive advantage still remains a function of individual organizational infrastructure and its excellence efforts.

- In a literature review of 347 TQM survey-based research articles published between 1989 and 2000, Ismail and Ebrahimpour (2002) argue that, because of a lack of a universally accepted TQM model, many companies are putting their faith in quality award models and using them as guidelines. More research is needed to increase the credibility of these models as effective approaches in achieving performance excellence.
- BEMs differ in their emphasis on the framework criteria items owing to different socio-cultural attributes, quality management practices and workplace practices of parent countries. In essence the award criteria of BEMs is comprehensive, scientific and focused on the needs of total supply chain with a limited focus on society needs as well. A comparison of different features of the MBNQA, the EQA and the Deming Prize is shown in Table I.

In addition to NQAs, some of the eminent academicians and consultants have also developed their own BEMs. For example, Kanji's Business Excellence Model (KBEM) is one such widely used model in UK, USA, Malaysia and Hong Kong in educational institutions and retail banking besides manufacturing and service organizations (Kanji, 2001).

Industrial organizations too have evolved their own excellence models. The Xerox Business Excellence Model focuses on six criteria: management leadership, human resource management (HRM), business process management, customer and market focus,

Table I Comparative statement of MBNQA, EQA and Deming Prize

Name	MBNQA	EQA	Deming Prize (DP)
Year of evolution	1987	1991	1951
Objective	Promoted by US Department of Commerce for Strengthening US Competitiveness: • To improve organizational performance practices, capabilities, and results • To facilitate communication and sharing of best practices information among US organizations of all types • To serve as a working tool for understanding and managing performance and for guiding organizational planning and opportunities for learning	EQA was developed to enhance global competitive position of Western Europe by accelerating acceptance of quality as a strategy for global competitive advantage. It supported the evolution of European Common Market and emergence of a new European management identity. It represents the radically broader guidelines for addressing issues like a community's perception of the company and employees' satisfaction as measures of quality performance	DP was established to honour the work of Dr Deming in development of QC in Japan. DP ensures that good results are achieved through successful implementation of company-wide quality control, in pursuit of continuous improvement, and extension of quality management to suppliers of the firm. Most of its criteria are focused to implement a set of principles and techniques, such as process analysis, statistical methods and quality circles
Responsible organization	NIST	EFQM	JUSE
International influence	North and South America, Asia, Oceania and EQA	Europe, Central Asia, Middle East and Africa	MBNQA reference at enactment, Asia
Award Criteria and Relative Score	1. Leadership 120 2. Strategic planning 85 3. Customer and Market Focus 85 4. Measurement, analysis and knowledge management 90 5. HR focus 85 6. Process management 85 7. Results 450	1. Leadership 100 2. Policy and strategy 80 3. People 90 4. Partnership and resources 90 5. Processes 140 6. Customer results 200 7. People results 90 8. Society results 60 9. Key performance results 150	A. Basic categories 100 1. Management policies and their deployment 20 2. New product development, work process innovation 20 4. Maintenance and improvement 20 5. Management system 10 6. Information analysis and utilization of IT 15 7. HR development 15 B. Unique activities 100 C. Role of top management 100

information utilization and quality tools and business results (Dahlgaard and Dahlgaard, 2005). In the “4P” Model of the Toyota Production System, Liker (2004) identifies 14 principles divided into four categories namely – philosophy, process, people/partners and problem solving.

We may conclude that BEMs’ assessment procedures seem to be the only comprehensive means available to date by which TQM initiatives can be thoroughly monitored and assessed. They provide a competitive internal mechanism necessary to face the future challenges. Explaining the future challenges for TQM and excellence, the following observation of Dahlgaard and Dahlgaard (2005) is most significant:

Managerial tools and techniques can be more properly utilised and hence people better mobilised when there are consistencies between realities, intentions, people's basic beliefs (paradigms) and the chosen approaches.

The present study is therefore an attempt to add another milestone to the existing excellence process, where UBEM has been evolved with the integration of the concepts of BEMs and essence of Vedic philosophy.

Essence of Vedic philosophy

About 1.97 billion years ago, when the present cosmos came to existence (*Atharva Veda* 8-2-21; *Yajur Veda* 30-18; *Bhagwad Gita* 8-17 to 19), four ancient sages namely Agni, Vayu, Aditya and Angira received the complete knowledge of “God”, “Soul” and “Physical Universe” in the form of four “Vedas”, namely Rig-Veda, Yajur-Veda, Sama-Veda and Atharva-Veda. This knowledge is pure and stored in the Cosmic Records (*Rig Veda* 10-130-4 to 7; 8-100-10, 11). Rig-Vedic hymns portray the world as a place where human beings are expected to enjoy life. Rig-Veda explains the “cosmic order” stating that “physical as well as moral laws govern the entire universe and that no transgression of these laws is allowed. Vedic philosophy derives infinite creativity, actions and power from these universal laws of Nature”. Sages over the ages – Lord Rama, Lord Krishna, Lord Buddha, Jesus Christ, Pegumber Muhammad, Swami Dayananda, Swami Vivekananda, etc. accessed cosmic knowledge and its infinite power by practicing these values and sharing its gains for the benefit of humanity. They are role models not only for their sects, but also for the entire humanity. Any human being can access the cosmic reservoir of infinite creativity and energy by practicing values derived from the universal laws of nature followed by the sages. For example, intuitions come in the state of complete harmony and alignment with universal source of energy. Scientists get intuitions for inventions from cosmic knowledge, consciously or sub-consciously:

Happiness of the man depends upon both maintenance of the body and upliftment of the soul. The maintenance of the body is the subject of science and the upliftment of the soul that of worship. Science deals with the inanimate matter; worship deals with God and soul. Science provides us bread and butter, worship provides us love and peace; science gives us livelihood and treasure, worship gives us manhood and pleasure. Worship analyses life in terms of truth and love, justice and duty, service and sacrifice, contentment and the like. However, there are hundreds of superstitions prevailing in every religion and each continent. It is because of the neglect of science in worship. Since man needs both these sets of things, his culture should be a combination of science and worship. This is the Indian view of Science and religion (Deepak, 2000).

Similarly, for an organization existing BEMs and managerial tools and techniques provide methods to keep the organization in a sound financial health to fulfil the needs of its body. The uplifting of the organization’s soul requires consistencies between realities, intentions, people’s basic beliefs (paradigms) and the chosen approaches. It can be done only by practicing universal values as part of organization’s culture. Universal values constitute those actions, which were upright in the past, upright today and will remain upright in the future. The universal values from material to moral are approved by Vedas. Values focus on long-term results, even at the cost of short-term profits. Vedic philosophy emphasizes that Values are the basis of entire universe (*Mahanam Upnishada* 17.6; *Manu Smriti* 1-108). Adopting value-based governance and meeting expectations of the community at large best serves the long-term interest of the organization and its people. Attainment of

excellence requires a combination of the both. If an organization integrates its way of working with the cosmic laws, it is destined to gain more profits and sustainable growth.

Vedic philosophy identifies four objectives to be sought in human life namely, value system, money, desires and salvation. These should be followed in such a way that the value system leads to attainment of money, money leads to fulfilment of desires and finally desires leading to attainment of salvation. Thus, values-driven leaders empower every member of the organization to take decisions as long as it does not harm others. However, every action that may adversely impact others should be based on values. The Vedic vision of excellence focuses on universal wellbeing (see Figure 1) by taking care of all stakeholders with equal vigil. It focuses on “value based governance” to attain longevity and sustainable growth. It enhances the profitability, employees’ pride in the enterprise, customers’ confidence and leads to prosperity for all (Talwar, 2005, 2002).

In Vedic philosophy, business has been seen as a legitimate, integral part of society. Its core function is to create wealth for society through manufacturing, domestic distribution, foreign trade, financing and other such related activities. It emphasizes working for an economic structure based on “*Sarva Loka Hitam*” which means “universal wellbeing” (Sharma and Talwar, 2004).

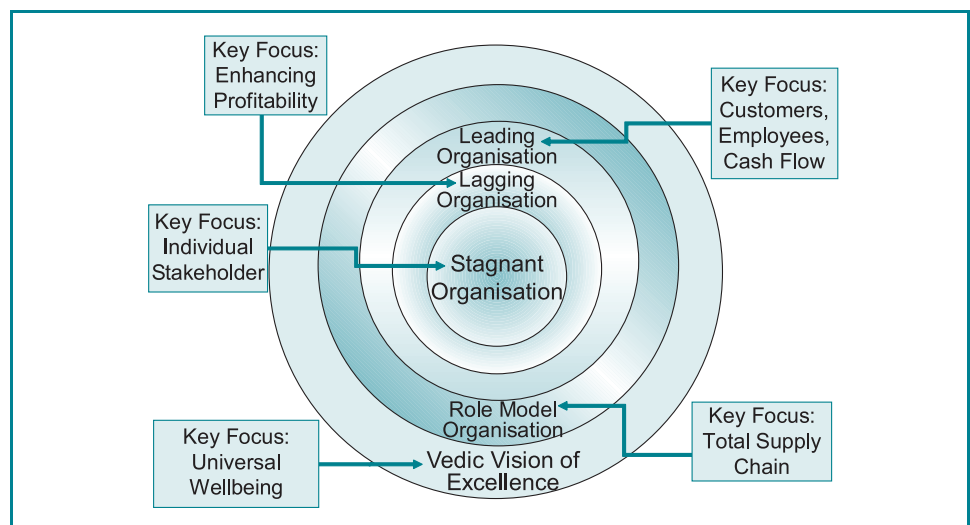
We may conclude that there are gaps between the current BEMs and Vedic vision of excellence. Sustainable growth can be achieved by bridging the gaps between BEMs and the Vedic vision of excellence. It has been done with evolution of UBEM in the current research.

Research methodology for the evolution of UBEM

UBEM has been evolved by integration of BEMs with universal laws of nature to derive their infinite creativity and power leading to multi-dimensional business growth. The common and unique issues of BEMs were tested *vis-à-vis* universal values enshrined in Vedic hymns. In addition, certain issues not adequately addressed in these models, but emphasized in Vedic hymns, have also been identified and empirically tested to check their practicability in different business environments. The research methodology constituted the following steps:

1. development and review of the questionnaire;
2. pilot study – data collection, analysis and interpretation;
3. main study – data collection, analysis and interpretation; and
4. universal applicability of the finalized factors grouped in clusters.

Figure 1 Vedic vision for excellence



1. Development and review of the questionnaire

The identification of the Vedic hymns from the huge reservoir of Vedic knowledge that relates to business practices and their suitable interpretation was most challenging task. Thus help from an eminent Vedic was sought in this regard. The essence of hymns was converted into simple language to develop the questionnaire for empirical study. The focus was given on those issues, which have not been adequately addressed in the BEMs. During pilot testing of the questionnaire before its finalization, experts remarked that the language of the questionnaire needed to be further simplified for better understanding of the respondents. The final questionnaire had questions in the following seven sections:

1. Part A. Best practices of various organizations.
2. Part B. Applicability of ancient wisdom for business excellence.
3. Part C. Values, work culture and long-term philosophy.
4. Part D. Measuring multiple bottom-lines to enhance business growth.
5. Part E. Fulfilling desires of stakeholders and global society.
6. Part F. Sustainable growth through continuous improvement and learning.
7. Part G. Vedic model of governance.

2. Pilot study – data collection, analysis and interpretation

Senior professionals working in the quality management area across the world were carefully identified and contacted through e-mail. They included the delegates from various countries, who participated in the International Conference on Quality held at Tokyo in September 2005. Many respondents felt that the questionnaire was challenging, and 66 responses were received with response rate of 11 percent. Out of the total 66 responses, 74.2 percent were from India (49 responses). The remaining responses were received from the USA, UK, Japan, Sweden, Turkey, Belgium, Trinidad, Russia, Libya and Iran. In the total number of respondents, ten were academicians, 16 were consultants and 40 were business managers. Experience, maturity and understanding were the serious considerations when identifying the respondents for the study. A brief profile of the respondents given in Table II testifies to this concern. In this survey 23 variables (questions) had very high mean score (> 4.2 on five-point scale) and low SD (< 0.80). These were considered as universally acceptable to all groups of respondents and removed from the main study. Factor analysis of the variables (questions), having maximum mean and minimum SD (see Table III) was undertaken after dropping the variable D3 because of multi-collinearity observed in the correlation matrix.

After dropping (D3) principal component factor analysis was carried out on the remaining 22 variables. In this analysis KMO and Bartlett Test, scree plot and rotated component matrix were used as shown in Table IV, Figure 2 and Table V respectively.

After analysis of the rotated component matrix and correlation matrix the variables which have been included in final results are the following: B2, C1, C2, C3, C6, C9, D2, D7, D8, D9, E2, E7, E9, E10, F3, F4.

To prove this result the alpha value of these variables was also calculated in the reliability test. It should be more than 0.7 where the actual value is 0.8665, which is good and acceptable.

Table II Descriptive statistics of the respondents

Description	Numbers	Minimum (years)	Maximum (years)	Mean (years)	Std deviation
Age	66	23	75	49.24	11.53
Experience	66	2	50	25.79	11.27

Table III Variables with maximum mean and minimum std deviation

	Mean	Std deviation	Analysis n	Missing n
B2	4.47	0.67	62	4
B3	4.53	0.78	62	4
B4	4.34	0.70	62	4
C1	4.32	0.70	62	4
C2	4.53	0.59	62	4
C3	4.52	0.62	62	4
C6	4.44	0.59	62	4
C9	4.37	0.73	62	4
C10	4.27	0.73	62	4
D2	4.39	0.73	62	4
D4	4.39	0.61	62	4
D7	4.34	0.65	62	4
D8	4.24	0.64	62	4
D9	4.44	0.64	62	4
E2	4.55	0.53	62	4
E7	4.34	0.77	62	4
E9	4.26	0.75	62	4
E10	4.35	0.68	62	4
F3	4.45	0.64	62	4
F4	4.55	0.62	62	4
F5	4.29	0.78	62	4
F9	4.48	0.57	62	4

Table IV KMO and Bartlett Test on 22 universally applicable variables

<i>Kaiser-Meyer-Olkin measure of sampling adequacy</i>	0.741
<i>Bartlett's Test of Sphericity</i>	
Approximate chi-square	607.134
df	231
Sig.	0.000

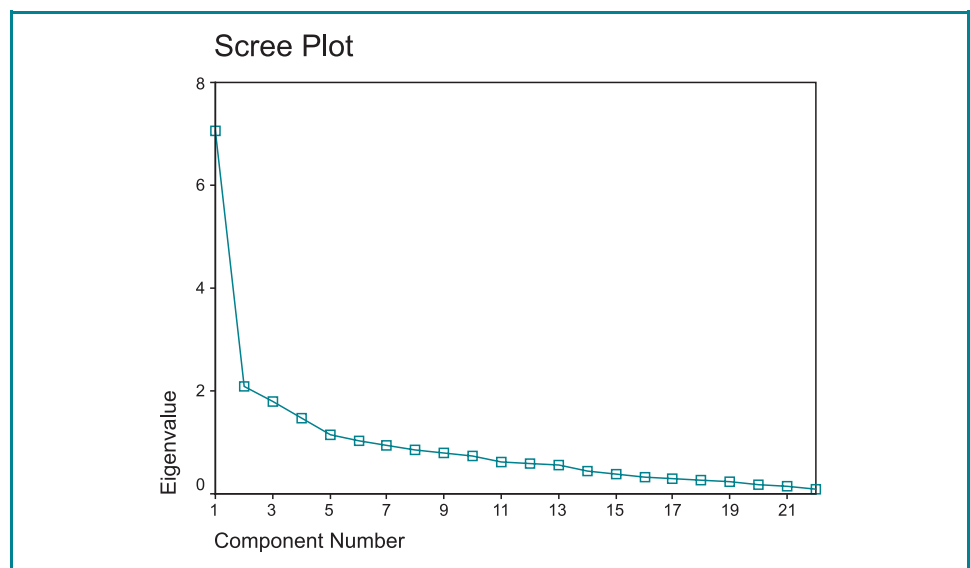
Figure 2 Scree plot for factor analysis of 22 universally applicable variables

Table V Rotated component matrix for factor analysis of 22 universally applicable variables

	Rotated component matrix ^a					
	Component					
	1	2	3	4	5	6
F4	0.857		0.248			
C1	0.698	0.214	0.228			
F5	0.684			0.394	0.207	
F9	0.616	0.422			0.217	–0.301
F3	0.574		–0.240	0.276	0.519	
C3		0.762	0.223	0.300		–0.232
D4	0.211	0.746			0.318	
D7		0.682	0.235		0.244	0.202
B4		0.552		0.338	0.365	
E9			0.755			
E10		0.238	0.750			
E7			0.714	0.259	0.286	0.312
C10				0.800		
C9	0.248	0.326	0.290	0.684		
C6		0.385	0.257	0.586		
C2	0.288	0.385	0.315	0.506		–0.230
D9	0.285		0.252		0.674	
B3					0.652	–0.285
D2			0.242		0.582	
D8		0.213	0.267		0.467	
E2		0.229	0.364	0.292		0.628
B2			0.255	0.382	0.392	–0.536

Notes: ^a Rotation converged in 13 iterations; extraction method: principal component analysis; rotation method: VARIMAX with Kaiser normalization

3. Main study – data collection, analysis and interpretation

The same criterion for selection of the respondents was kept as of the pilot study. However, this time the data bank of experienced TQ assessors working for CII-EXIM Bank Award (based on EFQM model) was also used and about 700 respondents were contacted either personally or through e-mail. In all 151 responses were collected (including pilot survey responses). Careful selection of the experts as respondents and collection of responses, took more than one year.

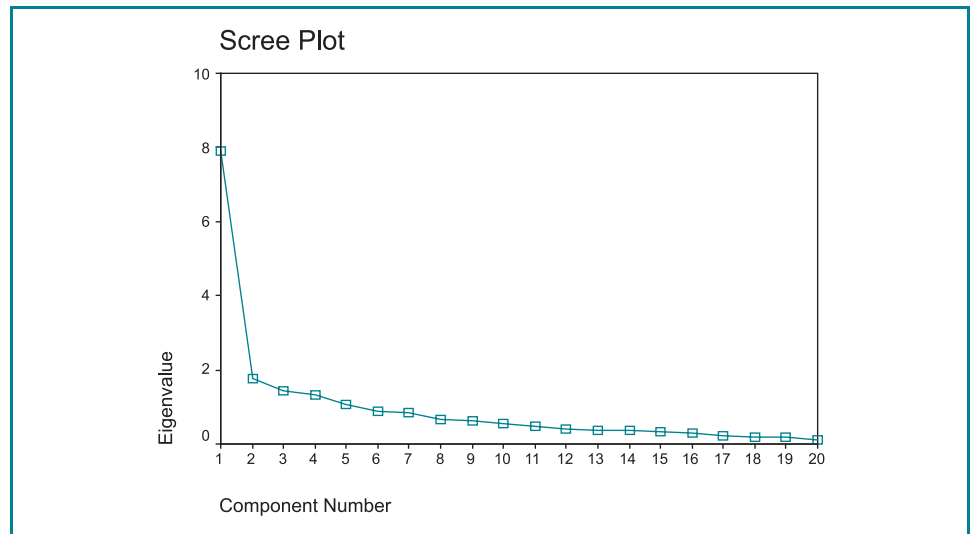
The steps followed for the principal component factor analysis in the pilot study were repeated separately five times for the analysis and interpretation of Part B, Part C, Part D, Part E and Part F of the questionnaire and the following factors were extracted:

1. Part B: B1, B6, B9, B10.
2. Part C: C4, C5, C7, C8, C11, C12.
3. Part D: D1, D5, D6, D11, D14.
4. Part E: E1, E3, E4, E5.
5. Part F: F6, F7, F8, F10.

At this stage, the factors of the main study and pilot study were combined together and a correlation matrix was prepared for the factor analysis. After analyzing these variables we found that the determinant is 6.131E-09, which is very low and it indicates that there is some multi-collinearity between these variables. Thus the variables B2, C1, D2, D7, D11, E1, E2, E5, F4 were dropped and the exercise was repeated for the remaining variables. Principal component factor analysis using KMO and Bartlett Test, scree plot and rotated component matrix are as shown in Table VI, Figure 3 and Table VII respectively. The reliability test of the extracted factors showed the alpha value of 0.9146, which is very good and acceptable.

Table VI KMO and Bartlett Test on the factors of pilot and main study variables

Kaiser-Meyer-Olkin measure of sampling adequacy	0.841
Bartlett's Test of Sphericity	
Approximate chi-square	595.152
df	190
Sig.	0.000

Figure 3 Scree plot for factor analysis of pilot and main study variables**Table VII** Rotated component matrix for factor analysis of pilot and main study variables

	Rotated component matrix ^a		
	1	2	3
C6	0.737		
C3	0.737		
C9	0.727		
C7	0.710		
C5	0.622		
C2	0.601	0.439	
D6	0.591	0.558	
B9		0.789	
E10		0.723	
F10		0.626	
D8		0.540	
E9		0.524	
F6			0.747
E4			0.734
E3			0.726
E7		0.479	0.575
F3			0.523
B6	0.432		0.510
D9			0.462
D14		0.426	0.432

Notes: ^a Rotation converged in ten iterations; extraction method: principal component analysis; rotation method: VARIMAX with Kaiser normalization

After analyzing the rotated component matrix three clusters of the extracted factors were formed as shown in Table VIII.

4. Universal applicability of the finalized factors grouped in clusters

For evolution of the UBEM, it is very important to test the universal applicability of the factors identified and grouped in the three clusters. Thus, the Levene's test for equality of variances and *t*-test for equality of means was applied on the segmented groups (Indian respondents vs other countries and business managers vs others) at a 95 percent confidence level on these clusters. In Levene's test, if the value is significant (i.e. <0.05) it is considered "Equal variances not assumed" otherwise it is taken as "Equal variances assumed". A similar interpretation is also applied in the case of *t*-tests. The results of business managers vs others in different factor scores are shown in Table IX.

In Levene's test all the significant values are 0.864, 0.104, 0.636 which is greater than 0.05 so we see the values of "Equal variances assumed". Similarly the significant values of the

Table VIII Clusters based on final analysis of the factors of pilot and main study variables

<i>Cluster 1. Values-based governance</i>	
B6	The objective of business is not mere profits, but the physical, financial and mental wellbeing of all its stakeholders and society at large
C2	Values-based governance best serves the long-term interest of organization, its people and enhances profitability
C3	Practice of values in business by all members of the organization
C5	Practicing values enhances the commitment of employees
C6	Transparency in dealings and timely compliance of commitments made to the employees, suppliers and partners leads to a win-win situation
C7	Every decision, which may adversely affect the interests of any stakeholder, should be based on values
C9	Proactively taking care of needs and expectations of all stakeholders and culture of giving due credit to the individuals/teams of stakeholders enhances growth
<i>Cluster 2. Universal wellbeing</i>	
B9	The society focus in the BEMs needs to be enhanced to ensure sustainable growth
D6	Like breath, continuous flow of material, information and money within the organization is essential to bring down the cost and enhances quality
D8	Measuring multiple bottom-lines, namely, physical, financial, mental, spiritual and societal bottom-lines is essential to know real level of excellence and attain sustainable growth
E9	Integrating business goals with laws of nature help in materializing "global vision" and provide sustainable growth and success for the organization
E10	Sacrificing the short-term gains for the sake of larger interest of global society leads to long-term gains for the organization
F10	In essence excellence lies in the common vision of all stakeholders, universal brotherhood and equitable distribution of prosperity
<i>Cluster 3. Building learning organization</i>	
D9	Senior executives should focus on enhancing use of education, values, principles and wisdom
D14	Joining hands with the customers, suppliers, educational institutions, social organizations, etc. reduces the global cost of products and services
E3	Developing a common vision, transparency in dealings, sharing of knowledge and profits with partners, customers and global society lead to sustainable growth
E4	The dual focus: sharing a common vision with partners and customers; and distribution of wealth to enable new areas of business sprout up, generates the positive currents amongst global society and leads to multi-fold growth in the business
E7	Joining hands with customers, suppliers, institutions and society, etc. to ensure the steady flow of information, knowledge, money and material for global society provides sustainable growth and prosperity
F3	Ignorance must be dispelled and continuous improvement and acquisition of knowledge should be promoted to create a learning environment
F6	Organization should subordinate itself to the common welfare of society while it is free to act for its own welfare

t-tests are 0.822, 0.599 and 0.103 which are greater than 0.05. So we can say that there is no difference between business managers vs others in different factor scores. Similar results were found in the Levene's test and *t*-test analysis between the respondents from India and other countries (see Table X).

Further, one-way ANOVA analysis was done between various age groups (i.e. <40 years; 41 to 55 years; >55 years) as well as experience profile (<20 years, 21-30 years and >30 years). The significant values for age groups as shown in ANOVA (see Table XI) are 0.587, 0.270 and 0.118, which are greater than 0.05. So we can say that there is no difference between age group and different factor scores. Similar ANOVA results were found for various experience profiles.

Thus the segmented analysis reveals that the results of various segments are similar and the three clusters are universally applicable.

Evolution of UBEM

After the in-depth study of the survey results and the qualitative comments received in Part G of the questionnaire, the essential points emerged to attain sustainable success are shown in Figure 4.

While "Enhancing profits and growth" came from the existing models, the other three points i.e. "universal wellbeing", "Building learning organization" and "values-based governance" emerged from the cluster analysis shown in Table VIII for the integration of Vedic philosophy with BEMs.

Based on this analysis *vis-à-vis* BEMs the UBEM Framework has been evolved (see Figure 5). UBEM consists of nine criteria namely, "leadership", "strategic planning", "people values", "partner values", "values and process flow", "customer values", "key business results", "universal wellbeing" and "sustainable success".

UBEM stresses that profit should be seen as a mean to achieve the "Universal wellbeing". The focus on "Universal wellbeing" enable to organization to achieve the sustainable success.

Six criteria namely, "leadership", "strategic planning", "people values", "partner values", "customer values" and "key business results" find the prominent place in all bems in one form or the other. The other three criteria namely "values & process flow", "universal wellbeing" and "sustainable success" are partly covered in the BEMs. These criteria reflect the universal nature of the model and integrate it with the universal laws of nature. In the criterion "values and process flow" while "processes" is the part of all BEMs, the practicing of values is partly covered under the leadership criterion. The responses received clearly indicate practicing managers' view in favor of practicing values to attain excellence (see Table VIII, Cluster 1 values-based governance). "values and process flow" focus to measure the multiple bottom-lines to attain sustainable growth. The arrow shape after criterion "key business results" towards criterion "universal wellbeing" to attain "sustainable success" provides the answer from Vedic philosophy for the stagnating growth in the developed economies. The integration of the organization's vision with "universal wellbeing" enables the organization to align itself with the infinite power of "Cosmic energy" and integrate UBEM with the essence of Vedic philosophy. Though the respondents were apprehensive to sacrifice the organizational profits for the society, they clearly came out in the support of values driven methods to earn the profits.

The outer-most layer of "external environment" makes the model flexible and integrates with culture and business environment of the country/region where it is to be used. It keeps the flexibility in determining weightage for each criterion in a given environment. The premise of UBEM is as below:

Values-driven leadership smoothen the flow of processes and resources (materials, finances, information, knowledge, product and services etc.) through strategic planning to enhance people values, partners values, customer values, and key business results to align its vision with universal wellbeing for attaining the sustainable success.

Table IX Levene's test and *t*-test on three clusters with respect to business managers vs others

		<i>Levene's test for equality of variances</i>		<i>Independent samples test t-test for equality of means</i>						
		<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig. (two-tailed)</i>	<i>Mean difference</i>	<i>Std error difference</i>	<i>95 percent confidence interval of the difference</i>	
									<i>Lower</i>	<i>Upper</i>
REGR factor score 1 for analysis 1	Equal variances assumed	0.030	0.864	0.226	59	0.822	6109E-02	0.2697464	-0.4786725	0.6008499
	Equal variances not assumed			0.230	45.748	0.819	6109E-02	0.2655817	-0.4735792	0.5957565
REGR factor score 2 for analysis 1	Equal variances assumed	2.725	0.104	-0.528	59	0.599	-0.1427288	0.2702576	-0.6835131	0.3980555
	Equal variances not assumed			-0.541	46.857	0.592	-0.1427288	0.2639002	-0.6736704	0.3882128
REGR factor score 3 for analysis 1	Equal variances assumed	0.227	0.636	-1.658	59	0.103	-0.4392972	0.2649132	-0.9693873	9.08E-02
	Equal variances not assumed			-1.580	37.820	0.122	-0.4392972	0.2780184	-1.00220	0.1236097

Table X Levene's test and *t*-test on three clusters with respect to India vs other countries

		<i>Levene's test for equality of variances</i>		<i>Independent samples test t-test for equality of means</i>						
		<i>F</i>	<i>Sig.</i>	<i>t</i>	<i>df</i>	<i>Sig. (two-tailed)</i>	<i>Mean difference</i>	<i>Std error difference</i>	<i>95 percent confidence interval of the difference</i>	
									<i>Lower</i>	<i>Upper</i>
REGR factor score 1 for analysis 1	Equal variances assumed	0.071	0.790	1.995	59	0.051	0.6110331	0.3062810	-1.8E-03	1.223900
	Equal variances not assumed			1.969	18.698	0.064	0.6110331	0.3103300	-3.9E-02	1.2612713
REGR factor score 2 for analysis 1	Equal variances assumed	0.216	0.644	0.522	59	0.604	0.1653273	0.3169233	-0.4688347	0.7994894
	Equal variances not assumed			0.472	16.906	0.643	0.1653273	0.3499314	-0.5732770	0.9039316
REGR factor score 3 for analysis 1	Equal variances assumed	0.238	0.131	0.341	59	0.734	0.1083851	0.3144815	-0.5268939	0.7436640
	Equal variances not assumed			0.256	14.382	0.801	0.1083851	0.4229750	-0.7965506	1.0133207

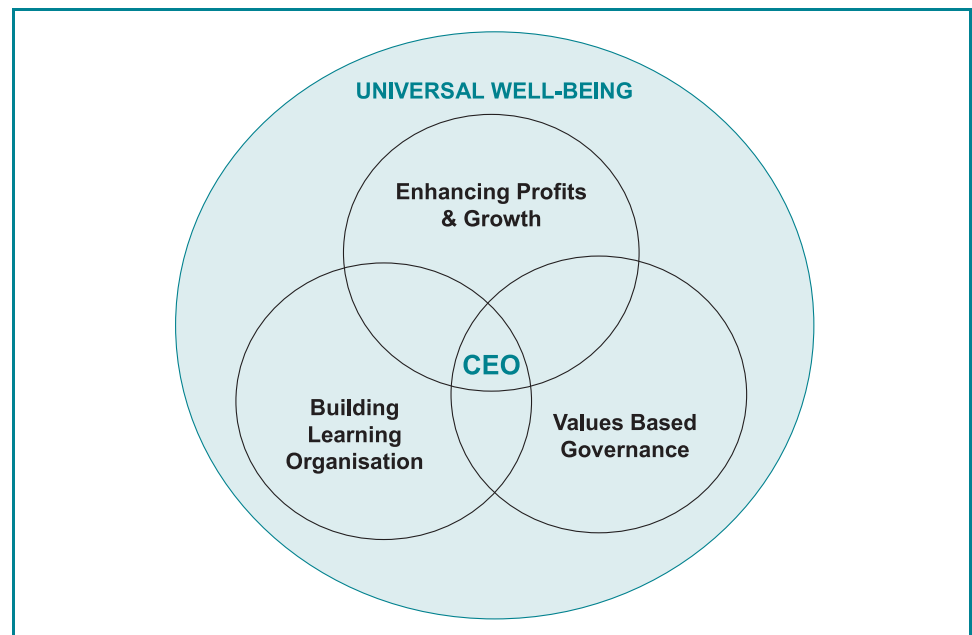
Conclusion

The evolution of UBEM as the central focus in this present paper is an attempt to synthesize the existing BEMs, the thought process of the experts and Vedic philosophy. The key difference between UBEM and existing BEM is that while BEM consider purpose of business is creation of wealth and enhance profitability, UBEM emphasizes that it is only a means to

Table XI ANOVA analysis between various age groups (< 40 years; 41 to 55 years; > 55 years)

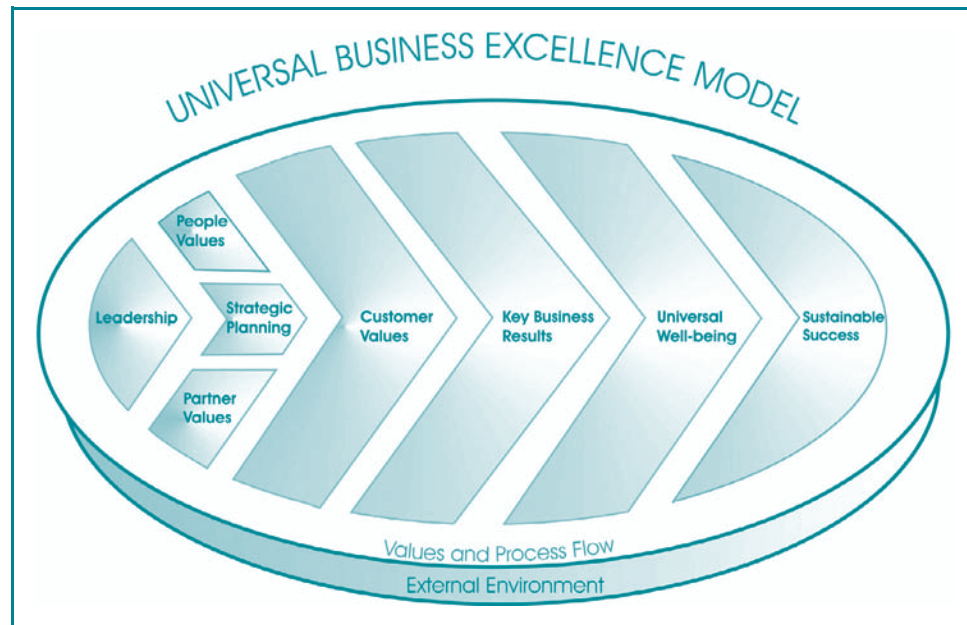
		Sum of squares	df	ANOVA Mean square	F	Sig.
REGR factor score 1 for analysis 1	Between groups	1.099	2	0.549	0.537	0.587
	Within groups	59.338	58	1.023		
	Total	60.436	60			
REGR factor score 2 for analysis 1	Between groups	2.690	2	1.345	1.340	0.270
	Within groups	58.209	58	1.004		
	Total	60.899	60			
REGR factor score 3 for analysis 1	Between groups	4.323	2	2.162	2.214	0.118
	Within groups	56.631	58	0.976		
	Total	60.954	60			

Figure 4 Essentials points to attain the sustainable success



attain universal wellbeing for sustainable success. The key focus of leadership has also been changed to “values-driven leadership” to enhance the longevity, sustainable growth, enhanced profitability and employees’ pride in the organization. The key to success lies in values and process flow. Thus, practicing values should not become an impediment to decision making, rather it should facilitate the removal of all obstacles in the continual flow of money, materials, knowledge, information and product and services to all stakeholders leading to fulfillment of their needs and expectations. Linkage of an organization’s vision with universal wellbeing will facilitate the flow of adequate resources and knowledge towards deprived sections of society leading to evolution of a loyal segment of employees, customers and well-wishers for the organization. It will also eliminate many troubles and social problems, and lead to an ethical way of governance in an organization’s culture, policies, systems and actions. Ultimately, the unification of an organization’s vision with universal wellbeing will provide an access to the infinite power of the cosmic energy to ensure multi-dimensional growth for the organization.

Figure 5 Universal Business Excellence Model (UBEM) framework



Adopting an ethical approach and meeting the expectations of the community at large best serve the long-term interest of the organization and its people. Vedic teaching stresses on “*Vasudhaiv Kutumbakam*”, which means all living beings are part of our family. Business needs to take care of this factor to ensure their long term and sustained success. With comparative analysis of contemporary management practices, ancient culture and Vedic teachings, many common practices as well as gaps will come to light. The UBEM focuses to strengthen the common learning and helps in the microanalysis of the gaps to evolve a comprehensive and practical approach for business excellence.

References

- Besterfield, D.H., Besterfield-Michna, C., Besterfield, G.H. and Besterfield-Sacre, M. (2001), *Total Quality Management*, Addison Wesley Longman (Singapore), Singapore.
- Bohoris, G.A. (1995), “A comparative assessment of some major quality awards”, *International Journal of Quality & Reliability Management*, Vol. 12 No. 9, pp. 30-43.
- Crosby, P. (1979), *Quality Is Free*, McGraw-Hill, New York, NY.
- Dahlgaard, J.J. and Dahlgaard, S.M.P. (2005), “In search of excellence – past, present and future”, paper presented at the International Conference on Quality (ICQ'05), Tokyo, September 13-16.
- Deepak, R.C. (2000), “Indian view of science and religion”, in Sharma, B.D. (Ed.), *New Perspectives on Vedic and Ancient Indian Civilization*, WAVES, Barre, MA, pp. 451-2.
- Feigenbaum, A.V. (1983), *Total Quality Control*, 3rd rev. ed., McGraw-Hill, New York, NY.
- Garvin, D.A. (1984), “What does quality really mean?”, *Sloan Management Review*, Vol. 26 No. 1, pp. 25-43.
- Garvin, D.A. (1987), “Competing on the eight dimensions of quality”, *Harvard Business Review*, Vol. 65 No. 6, pp. 101-9.
- Gilmore, H.L. (1974), “Product conformance cost”, *Quality Progress*, June, pp. 16-19.
- Grönroos, C. (1983), *Strategic Management and Marketing in the Service Sector*, Report No. 83-104, Marketing Science Institute, Cambridge, MA.
- Harrington, H.J. (2004), “The fallacy of universal best practices”, *Total Quality Management & Business Excellence*, Vol. 15 Nos 5-6, pp. 61-75.

- Hermel, P. (1997), "The new faces of total quality in Europe and the US", *Total Quality Management*, Vol. 8 No. 4, pp. 131-43.
- Hermel, P. and Remis-Pujol, J. (2003), "An evaluation of excellence: some main trends", *The TQM Magazine*, Vol. 15 No. 4, pp. 230-43.
- Hughes, A. and Halsall, D.N. (2002), "Comparison of the 14 deadly diseases and the business excellence model", *Total Quality Management*, Vol. 13 No. 2, pp. 255-63.
- Ismail, S. and Ebrahimpour, M. (2002), "An investigation of the total quality management survey based research published between 1989 and 2000", *International Journal of Quality & Reliability Management*, Vol. 19 No. 7, pp. 902-70.
- Jensen, M.C. (2000), "Value maximization and the corporate objective function", in Beer, M. and Nohria, N. (Eds), *Breaking the Code of Change*, Harvard Business School Press, Boston, MA, pp. 37-57.
- Juran, J.M. and Gryna, F.M. Jr (Eds) (1988), *Juran's Quality Control Handbook*, 4th ed., McGraw-Hill, New York, NY.
- Kanji, G.K. (2001), "Forces of excellence in Kanji's business excellence model", *Total Quality Management*, Vol. 12 No. 2, pp. 259-72.
- Kozo, K. and Yoshizawa, T. (2005), "International development of quality award", paper presented at the International Conference on Quality (ICQ'05), Tokyo, September 13-16.
- Levitt, T. (1972), "Production-line approach to service", *Harvard Business Review*, Vol. 50 No. 5, pp. 20-31.
- Liker, J.F. (2004), *The Toyota Way*, TATA McGraw-Hill, New York, NY.
- McDonald, I., Zairi, M. and Idris, M.A. (2002), "Sustaining and transferring excellence", *Measuring Business Excellence*, Vol. 6 No. 2, pp. 20-30.
- Martin Searle (2005), Presentation by SAI Global at the 13th Quality Summit of CII, India, November 10-11.
- Miguel, P.A.C. (2001), "Comparing the Brazilian national quality award with some of the major prize", *The TQM Magazine*, Vol. 13 No. 4, pp. 260-72.
- Parasuraman, A., Zeithaml, V.A. and Berry, L.L. (1985), "A conceptual model of service quality and its implications for future research", *Journal of Marketing*, Vol. 4 No. 4, pp. 41-50.
- Peters, T.J. (1999), *The Circle of Innovation*, Vintage, London.
- Peters, T.J. and Waterman, R.H. (1982), *In Search of Excellence – Lessons from America's Best-run Companies*, HarperCollins Publishers, London.
- Puay, S.H., Tan, K.C., Xie, M. and Goh, T.N. (1998), "A comparative study of nine national quality awards", *The TQM Magazine*, Vol. 10 No. 1, pp. 30-9.
- Schaffer, R.H. and Thomson, H.A. (1992), "Successful change programs begin with results", *Harvard Business Review*, January-February, pp. 80-9.
- Sharma, A.K. and Talwar, B. (2004), "Business excellence enshrined in Vedic (Hindu) philosophy", *Singapore Management Review*, Vol. 26 No. 1, pp. 1-19.
- Talwar, B. (2002), "Corporate excellence journey and Vedic vision", in Dhamija, S.C. and Singh, V.K. (Eds), *Vedic Values and Corporate Excellence*, Gurukul University, Haridwar, pp. 35-46.
- Talwar, B. (2005), "Sustainable growth – the Vedic way", paper presented at the International Conference on Quality (ICQ'05), Tokyo, September 13-16.
- Tan, K.C., Wong, M.F., Mehta, T. and Khoo, H.H. (2003), "Factors affecting the development of national quality awards", *Measuring Business Excellence*, Vol. 7 No. 3, pp. 37-45.
- UNECE (2004), "National quality award schemes", November, available at: www.unece.org/indust/sme/Q-national-award.html
- Zairi, M. and Youssef, M.A. (1995), "Benchmarking critical factors for TQM – part I: theory and foundation", *Benchmarking for Quality Management & Technology*, Vol. 2 No. 1, pp. 5-20.

Further reading

Deming, W.E. (1986), *Out of the Crisis*, Massachusetts Institute of Technology Centre for Advanced Engineering Study, Cambridge, MA.

Ishikawa, K. (1985), *What Is Total Quality Control? The Japanese Way*, trans. by D.J. Lu, Prentice-Hall, Englewood Cliffs, NJ.

Juran, J. (1986), "The quality trilogy", *Quality Progress*, No. 9, pp. 19-24.

Corresponding author

Anil K. Sharma can be contacted at: anilfdm@iitr.ernet.in

To purchase reprints of this article please e-mail: reprints@emeraldinsight.com
Or visit our web site for further details: www.emeraldinsight.com/reprints