Transcendent Leadership for Sustainable Construction Project Management in China and India

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Introduction and Context

Governments of the Republic of India and the People's Republic of China have led spectacular economic growth, resulting in improvements in the living conditions of millions of poor people. Nevertheless, further growth is essential to bring millions more out of dire poverty. However, the growth process has not been free from problems. Commercial activities including business models are often based on short-term objectives of transactional that is getting things done by payments approach using mass production technology and cheaper resources. The economic growth processes in these two giant economies remain largely dependent on energy from cheaper fossil fuels such as coal, with resultant high greenhouse gas emissions and pollution that exacerbate climate change and ecological imbalance (OECD, 2013). Thus, the growth strategies of China and India have drifted away from societal aspirations including demands on corporate socially responsible behavior and protection of environment. This *'strategic drift'* (Johnson et al., 2014) is visible not only in excessive pollution and emissions but also in the failure to develop a balanced ecology-technology interface that would allow production of goods and services while protecting the environment and conserving

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earth's resources. However, in both China and India, talented university-qualified people needed to fuel the development process are migrating to Western countries for prosperity and a better quality of life.

In the past few decades, the world has seen dramatic changes in general market dynamics, driven by macro-environmental factors including technological evolution toward eco-technology, as well as increasing globalization of business, oil market fluctuations, spectacular corporate scandals, financial meltdowns (e.g., Greece, Ireland, and Iceland), and the increased risk associated with terrorist activities and wars. The changes whether incremental or quantum are impacting the highly complex infrastructure (engineering) construction projects. Repeated restructurings have been necessary to adapt to changes and uncertainties, including pressure from investors to achieve cost savings. The non-egalitarian societal distribution of wealth from economic progress continues. Correction of the strategic drift is long overdue. However, these developing economies must also perform competitively in the global market to be able to reduce widespread poverty. India and China have jointly reiterated that their bilateral partnership on the issue of climate change is mutually beneficial and globally significant (GOI, 2015). The challenges to reform are indeed formidable. To progress the correction process, China has adopted strategies of reducing the size of the coal and iron industries and expanding the service sector to rehabilitate millions of displaced workers. India has also embarked upon significant structural changes (Wang & Yang, 2009). China and India have both taken environmental initiatives such as pollution abatement and water management. To continue with the process of change, responsibly, the industry must improve its capacities to deliver the projects with triple bottom line of sustainable performance in profit, people, and the environment. The chapter provides generic insights and guidance for practitioners to develop mindset and capacity for sustainable construction project management (SCPM) for responsible ways of doing things with cutting-edge knowledge, eco-technology, pedagogical behaviors with supporting organizational culture, motivation for innovative performances, and the capacity to transcend increasing challenges and to exploit opportunities in global market dynamics. It is argued that such responsible leadership will result in significantly higher productivity compared to existing processes. Furthermore, it explores leadership frameworks and the application of transcendent leadership (TL) to achieve triple bottom line sustainability in profitability, people, and the environment. Engineers and other professionals (practitioners) provide bulk of the leadership across the *self–others–organization–community* continuum in different roles from junior managers to senior corporate executives.

This chapter focuses on the evolution of the personal capacities of leaders across all levels for holistic, well-coordinated strategic performance in SCPM (Strang & Kunhert, 2009). The success of TL in SCPM requires identifying and developing healthy, university-educated practitioners who are motivated to achieve self-development and work with a team of expert members to influence and guide the transformation to responsible processes. To endure emerging challenges and opportunities, the practitioners will require holistic growth and innate empowerment to lead from their 'being'. They will need to influence within and across levels to implement effective strategies and develop team members to become sustainably competitive performers (e.g., Collinson & Tourish, 2015; Mukerji, 2012; Shenhar, 2004; Seltzer, 2013; OGC, 2005). Practitioners require capacities to take greater responsibility for their own continuous development and self-empowerment, to sustain their creative abilities and masterly facilitation of expert team members and external stakeholders. Teamwork with expert stakeholders in proactive planning and decision-making is a critical source of experiential learning and education that can be harnessed to deal with major problems and opportunities arising in SCPM, such as adapting eco-friendly technology for performance, protection of the environment, and sustainable competitive advantage.

A significant review of multidisciplinary literature on leadership and professional spirituality was conducted to develop this chapter's definitions of 'transcendental leadership', 'professional spirituality', 'spiritual humanism', and other key concepts. The term 'ecology' is used broadly for the branch of science that holistically deals with the relations of organisms to one another and to their physical surroundings, and political and engineering movements concerned with protection of the environment. For China and India, the challenges of competitive markets and pressures for protection of the environment have added new dimensions to the rhetoric of sustainable competitive advantage.

Construction Industry and Evolving Project Management

According to the World Bank, International Monetary Fund reports, and empirical evidence from the literature, in 2014 the construction industry contributed 8% of the national GDP in India and 10% in China. The sector is labor intensive, and a large employer with three broad areas of activities: (1) engineering construction for infrastructure such as roads, water and electricity supply, and industrial buildings; (2) residential buildings; and

(3) non-residential buildings – offices, shopping centers, hotels, and so on. A number of other sectors are linked to the construction sector including parts of the manufacturing, trade and finance sectors, and some of the professional services such as architecture and engineering, The construction sector delivers its products and services mostly by project management systems and change is a permanent feature of the sector. The sector plays key roles in the growth of national prosperity and has significant potential to contribute to protection of environment. There is strong government commitment to increased sustainable construction productivity amid rising urbanization.

Both China and India have ancient cultures, and their populations comprise virtually all major religions. China has a longer history of economic growth, investments in infrastructure, administrative controls, and management efforts to improve innovation, diversity and zero tolerance on discrimination (Wang & Yang, 2009). In contrast, India is the world's largest democracy in which infrastructure is developing and the old economy is gradually transforming and becoming growth oriented. Compared to China, India has a younger population, English is virtually the second language, and the country is historically closer to Western culture. Although leadership emphasis and styles vary between individuals, organizations, and cultures, similarities in the strategies and values have enabled the two countries to recently sign a joint statement on climate change (GOI, 2015) leading to collaborations on ecological improvements. Despite political and other hurdles, since 1980 both countries have taken joint steps to overcome political differences and establish favorable relations for growing economic and strategic ties (Wiki, 2016b). The question now is how to transform the pattern of balanced economic development in China and India? How are they going to holistically reform attitudes on development from the 'pollute first, treat pollution later' type of approach to responsible production, to sustainable innovation in industrial systems for growth (e.g., human capital and technology) and create regulations to foster sustainable triple bottom line development? New flexible and effective custom-made performance models are essential to improve different sectors of both of the giant developing economies. National initiatives are underway. China claims a world-class industrial base that promises to make low-carbon technology more accessible (Lewis, 2015). There is a high possibility that China's models for transition can be replicated for transformation elsewhere in Asia (OECD, 2013). Proper use of the proposed TL frameworks integrated with ethical/moral values for responsible economic growth will significantly reform the process of change. Ecological orientation and emphasis on system-like interdependencies between environment, organism, and behavior are important (Toor & Ofori, 2008). This perspective is important for developing effective pedagogical behavior, with

the cooperation of organizational specialists, to support the complex SCPM process (Schmidt, 2009; Willems, 1974).

Eco-technics '95, the International Symposium on Ecological Engineering in Sweden, defined 'eco-technics' as a method of designing future industry and societies by ecological engineering within ecological frames (Guterstam, 1996). Eco-technology (Wiki, 2016a), also known as clean-tech, green-tech, and environmental-tech, eco-friendly technology can help preserve the environment through responsible energy efficiency and restraining harmful waste economy. The proposed TL is an applied science that seeks to fulfill economic and human needs with minimal ecological disruption by harnessing and manipulating natural forces to leverage their beneficial effects. Sustainable development requires implementation of environment-friendly technologies that are efficiently and effectively adapted to local conditions (Rogers, 2011; Srivastava, 2015). TL emphasizes approaching a problem from a holistic responsible point of view proactively if possible. It facilitates responsible economic performance in responsible ways including:

- Creating leadership cpacities to select eco-responsible processes and responsible use of materials and energy sources
- Control of impacts on ecosystems
- Development and permanent improvement of cleaner processes and products
- Eco-marketing
- Introduction of environmental management systems in the production and services sectors
- Development of activities for increasing awareness of the need for environmental protection and promotion of sustainable development by the general public

Expertise in eco-technology and pedagogical behaviors for holistic SCPM leadership create not only capacities for game-changing performance for sustainable competitive advantage but may also make performers eligible for Asian state and countries rewards for non-polluters. The planning, organization, and teamwork required to develop effective and efficient eco-technology interfacing should come naturally to TL practitioners because the leaders and the organization will share fundamental values and assumptions; each aspires to contribute more and the organization to support. Engineering construction projects involve unique, one-time initiatives. With high demand for growth and innovation, the importance of project management is on the rise (Shenhar & Dvir, 2007; Hallgren & Wilson, 2008) and

engineering projects provide a valuable backdrop to explore holistic project management. The foregoing discussions create the basis for evolution of leadership frameworks for responsible SCPM.

It is generally known that levels of risk and uncertainty in projects are high and the engineering projects have endemic high rates of failure. Thus uncertainty and risks are important issues for SCPM, whether the consequences are measured in cost, time, quality, safety, reputation, or other dimensions of success. There are examples of successful projects, and that a trend of higher rates of failure is noticed more in government public works projects. In software projects, the top four factors that contribute to project success are user involvement, executive management support, clear statement of requirements, and proper planning (Iman & Siew, 2008). User involvement and executive management support ensure timely intervention to meet users' needs and influence the process and progress of a project. A clear statement of requirements and proactively developing those features reduces the adverse effects of change. An added benefit of synthesizing critical past experience with evolving new strategies is that project managers are better prepared to articulate the needs and priorities of unique engineering projects.

Preparing the project plan is the all-important step for successful engineering project management life cycle and usually includes a detailed breakdown and assignment of tasks from beginning to end. Developing a project plan involves integration of several project management knowledge areas for only one output the 'project management plan'. This plan is developed by reviewing the project charter and outputs from several other processes, such as the decision-making, communications, and the cost management plan. The project management plan is used by many processes, such as plan schedule, and control risks. A recurring theme in the literatures is project success factors, and project managers' competence profiling. This research made use of 'planning' artifact for developing project success factors for the new generation leadership development (Hargrove & Sitkin, 2011; PMBOK, 2013; Lynn, 2000) with expertise in proactive planning and the closely associated decision-making of the process in the complex environment of engineering project management. Experience and learning from the past, combined with an awareness of societal aspirations, will create an understanding of both the threats and opportunities for sustainable governance, proactive planning and decision-making all through project management. In addition, drawing on the author's ongoing research into project management, this chapter assumes improvements in common *causes of construction project failures* (Mukerji, 2013, 2012) is a major input to practitioners' insight and developing abilities not only to reduce endemic project failures but also to carry the improvements further to higher

levels of performance for sustainable competitive advantage (e.g., Uhl-Bien, 2006; Thomas & Mengel, 2008; Mukerji, 2013). Moreover, projects are more likely to fail due to people issues than technical problems. Despite a dearth of empirically based research on the soft side of project management, major international project management bodies of knowledge, such as the UK Office of Government Commerce (OGC, 2005) and the Project Management Institute (PMBOK, 2013), posit that project failures significantly relate to leadership problems. This is consistent with the work of scholars (e.g., Scott-Young & Samson, 2008; Bellis, 2003), who have found the following key reasons for project failures:

1. Ineffective decision-making in managing changes
2. Project schedules with unachievable delivery dates
3. Excessive 'scope creep'
4. Ineffective coordination with subcontractors and suppliers
5. Ineffective control and communication over progress, and concealment of project status until it is too late

The findings of a recent mixed methods study on the 'common causes of project failure' (Mukerji, 2012) validate the above studies and also suggest practical leadership behaviors, such as proactive decision-making, to effectively deal with the causes of project failure. The research also found that a 'structured regular review mechanism' for updating decisions regularly is important for continued effectiveness. On the issue of leadership in proactive decision-making practices in India, the KPMG (2009) survey highlighted the following noteworthy implications for corporate governance:

• Requirement for principle-based standards of governance
• Corporate social responsibility – requiring consideration of the interests of society, e.g., all stakeholders, colleagues, the organization, and the leader's self
• Responsibilities for triple bottom line sustainability in (1) profitability, (2) people, and (3) the environment

The KPMG India report emphasized the importance of inherent Indian leadership values in the strategies and behaviors relevant to the foregoing discussion on project failures. As the nature of practitioners' challenges and opportunities is becoming more complex, it is interesting to investigate how leaders should synthesize proven best practices for emerging eco-technology performance. Instead of the general 'reactive' approach in leadership, the KPMG report made clear the need for adopting 'proactive' leadership

strategies, for example, in decision-making, to prevent problems occurring, as well as pedagogical behaviors to beneficially alter leaders' attitudes. Thus, proactive leaders will develop capacities to see the big picture and anticipate problems; become more organized and connected with their team for seeking advice and help; and develop relationships, mutual loyalty, and an integrity-filled attitude leading to trusting relationships, which are critical in the emerging new environment (Crossley, Cooper, & Wernsing, 2013; Pinto, Slevin, & English, 2009; Thomas & Mengel, 2008).

Established patterns of education and training programs (e.g., attending seminars, short executive development programs, etc.) have met with, at best, limited success with respect to integrative thinking. Almost no current theory incorporates individual differences in practitioners' characteristics and leadership styles (e.g., aligning, harmonizing, and achieving perfect equilibrium) for sustainable teamwork. Developmental assignments for practitioners appear to be a faulty assumption as means of preparing them adequately for the intended leadership capacities (Dragoni et al., 2009, p. 732). In reality, twenty-first-century practitioners must manage their own attitude and performance to sustain their motivation and grow their capacity for holistic innovative and sustainable personal performance, and at the same time lead teams and collaborate with others to help them achieve high productivity in their job and social relationships (Drucker, 2005; Watson, 2001; Avolio & Gardner, 2005). Leaders are facing increasing challenges and anxiety at work and in their personal lives and overall satisfaction in both are essential. Together they provide the stable reinforcing base on which leaders perform complex endeavors effectively and efficiently (Campbell, 2007; Quatro, Waldman, & Galvin, 2007; Watson, 2001). The TL growth process needs to be underpinned by *learning–education–training*, and an organizational culture that supports the 'leader' and 'leadership' process equitably in critical areas such as rational aspirations in life, break-through performance at work, competitive edge and protection of the environment (Nelson, Poms, & Wolf, 2012; Hargrove & Sitkin, 2011; Toor & Ofori, 2008; Yang, Phelps, & Steensma, 2010; Dragoni, Tesluk, & Oh, 2009). Commercial competitive advantage and protection of the environment according to social values are not necessarily contradictory. If handled properly, sustainable competitive advantage will unleash humans' ingenuity for highly innovative performance and high productivity. Practitioners are enthusiastic about necessary changes that will improve their life satisfaction as well as their long-term security (Snook, Nohria, & Khurana, 2012; Thomas & Mengel, 2008; Toor & Ofori, 2008; Mukerji, 2013). These insights from this research into the evolving project management and examination of the project successes factors and causes of failures provide a mosaic

of factors for organization specialists to develop more effective pedagogical models for the practitioners.

With TL, construction projects are thus poised to shake off endemic failures and instead develop capacities to become sustainable and competitive. With organizational support, leaders' personal transcendent capacities will naturally propel their individual psyche to transcend to higher human tendencies when faced with even apparently insurmountable challenges. However, talented managers are in short supply in the construction industry, and the field of construction may not be appealing enough to attract and retain talented individuals among the new generation of leaders (FMI, 2014). Moreover, organizations may not have the proper supporting cultures, systems, and strategies to support the holistic leadership process. It is interesting that in China and India corporate governance research in the context of emerging economies has started giving more attention to people issues. Leadership in adopting eco-technology, coupled with proactive pedagogical behavior, moral/ ethical processes, and the best of organizational values and past practices, are the dominant factors in the successful evolution of established high-polluting practices into sustainable competitive advantage in the low-carbon economy.

Strategies for Sustainable Competitiveness

Traditional practitioners often limit themselves by defining what they can or cannot do. The capacity to transcend these limitations requires a practitioner to understand and align their leadership attitude toward enduring problems and opportunities. By raising their level of awareness of self and of their team, it will become possible to envision new modes of thinking and to make sustainable decisions about discarding or evolving old technology to embrace emerging eco-technology, according to situational need (e.g., Crossley, Cooper, & Wernsing, 2013; Schmidt, 2009). From the author's ongoing research and the findings, it is apparent that TL is strategic. Figure 1 illustrates the strategic new project management approach for responding proactively to new problems and opportunities in the fast-changing environment.

The figure represents an interrelated system to guide step-by-step SCPM activities as required for proactive leadership on change initiatives, including

- Designing practical action plans for any problem, idea, or opportunity
- Aligning SCPM objectives with organizational goals, vision, and strategic intent
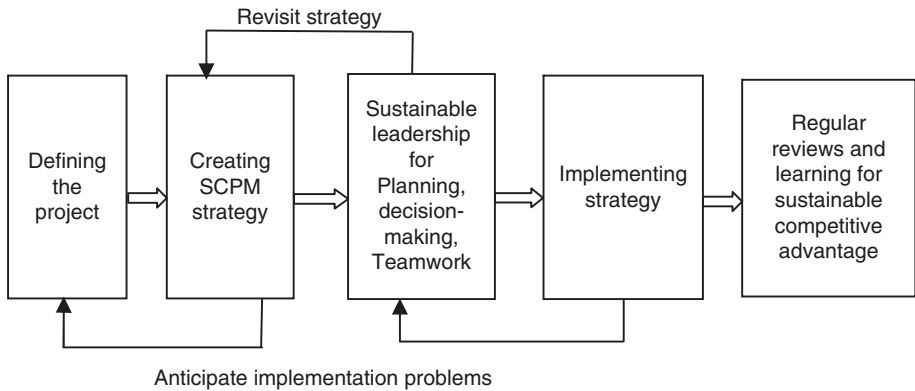
Fig. 1 Strategic project management: sustainable competitive advantage

- Clearly communicating SCPM strategies and TL values among the stakeholders
- Discussing and proactively eliminating project pitfalls

Change initiatives listed on above, when adjusted to situational needs for projects and market dynamics, will trigger the development of strategic capacities for SCPM objectives, such as

- Moving teams speedily with updated and clear plans showing who does what, when, and how
- Improving collaborative working relationships, cooperation, and conflict management, which increases performance and productivity at project stages and final delivery
- Delivering on-target goods, services, and projects with sustainable competitive advantage, e.g., responsible economic returns, client satisfaction, personal life balance of stakeholders, and protection of the environment

With fast-growing knowledge, it is apparent that long-term business success will depend more on equitable balancing of strategies and business models. The TL strategic process will facilitate the growth of a new generation of leaders with holistic leadership capacities (Quatro, Waldman, & Galvin, 2007) allowing leaders and team members to steadily transcend complex challenges toward sustainable competitive advantage (Hargrove & Sitkin, 2011; Avolio & Gardner, 2005; KPMG, 2009). The key driving forces behind this include

- Growing awareness among policymakers, educators, and the general public of the need for responsible corporate leadership (Pless, Maak, & Stahl, 2011) and organizational learning/education schema to support it
- Insights from experiential learning and actions of leaders in construction project management into holistic performance and the capacities for reduction of project failures and evolution to sustainable competitive advantage
- Proactive behaviors of leaders in planning, teamwork, and decision-making when dealing with major problems
- TL incorporating selected aspects of transactional, transformational, and transcendent groups of leadership theories for SCPM knowledge and wisdom for strategies, ethics/moral, societal relationships, learning and education, professional spirituality, and so on in TL context

TL across levels (i.e., of leader's *self–others–organization–community*) is impacted upon by the strategic project management. TL practitioners play the critical integrative roles at all levels. The TL group of theories provides flexible frameworks for self-enhancement or *leadership of self* enriched with higher levels of self-awareness, which in turn will lead to effective and efficient character-based ethics/moral and knowledge configuration for capacities for efficacy to transcend challenges for sustainable outcomes (Nelson, Poms, & Wolf, 2012). Figure 2 presents the concept of across levels and how TL forms the core of the leadership processes (Crossan & Mazutis, 2008):

The TL framework has been developed in response to the unprecedented challenges from the dynamic congruence and configuration of strategies and driving forces examined earlier. SCPM adopts a flexible structured approach including knowledge configuration for its multidisciplinary systems. At the 21st Session of the Conference of Parties (UNO COP21, 2015) participating in the UN Convention on Climate Change, world leaders delivered an agreement aimed at stabilizing the climate and avoiding the worst impacts of climate change. This triggered the arrival of the 'low-carbon' global economy and new technologies. The TL process with its built-in continuous learning and education component and flexible leadership expertise fits in very well with the leadership capacity needs of emerging challenges and opportunities from holistic eco-technology and low-carbon economy. TL facilitates transcendence in leaders' capacities with the required new values, strategies, and a higher consciousness, leading to game-changing innovative performance in production and protection of the environment (Mirvis, 2008). The regular review mechanism and inherent transparency structured into the decision-making process means the dynamic leadership process can be trusted,
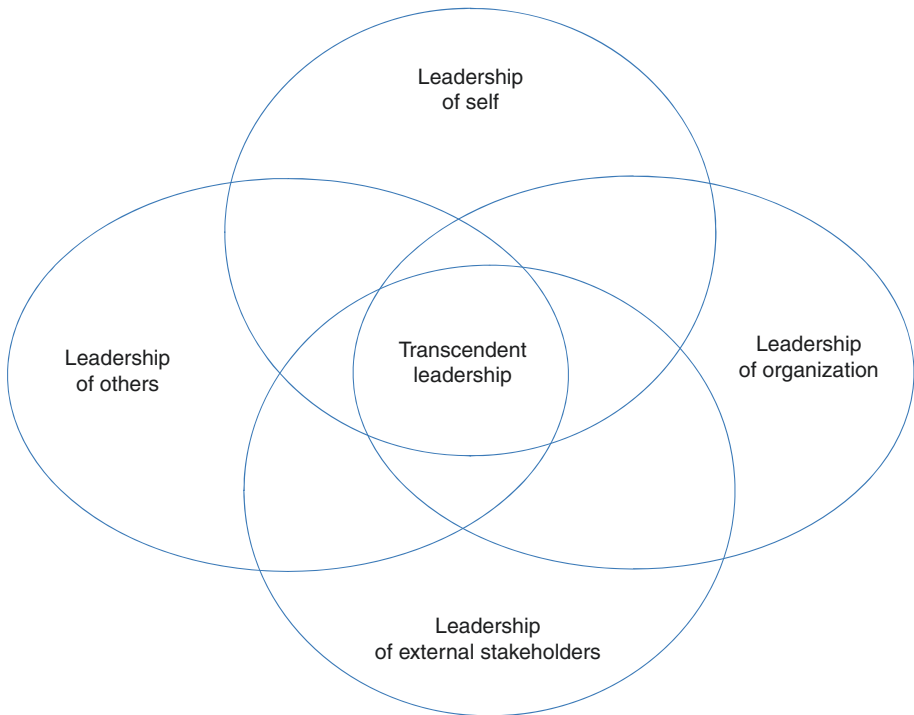
Fig. 2   Transcendent leadership concept

increasing the chance of projects being considered for new investments from the potential trillions of dollars every year pouring into the growing economies such as China and India (UNO COP21, 2015).

Practitioners are enthusiastic about having more responsibility for their personal and team success. They welcome a practical leadership framework, and theories and meaningful organizational learning and education to support enhancement of their leadership abilities (Mukerji, 2012, 2013). TL seems to fulfill this need of Chinese and Indian leaders.

Learning for Innovative Performance: Socio-Cognitive Model

From synthesis of the SCPM context and the TL concept and process explored in foregoing sections, the need for a new paradigm of proactive leadership appears essential. Broadly, SCPM leadership capacities are

underpinned by six major categories of knowledge: business, technology, strategies, social relationships, professional spirituality, and a leader's individual leadership style, which could be stimulated by carefully structured organizational learning and education programs. In most instances, leadership knowledge is actually transferred, absorbed, and put into practice on an individual level (Antons & Piller, 2015). This could be significantly empowered by motivations for experiential learning from all possible sources, such as observation of how expert stakeholders reflect and articulate key problem dimensions, and analyses of data for proactive decision-making in the context of overall project objectives. TL is holistic, going beyond the theories to innovative interfacing performances with decisions to endure emerging problems and opportunities. The process is concerned not just with 'knowing' about things, but also with evolving the leader's experience of 'self' awareness and the world in which they work and live (Smith, 2012). Learning and education is thus more than simply gaining new knowledge. It also includes creating innovative abilities through experiences and applications that arise from the congruence and configuration of drivers, skill level, and individual leadership styles. Figure 3 illustrates the leadership learning and education process through a partial socio-cognitive model (Pless, Maak, & Stahl, 2011; Jacobs & Klerk, 2007).

The learning and education model (Fig. 3) is based on the work of scholars (e.g., Jacobs & Klerk, 2007; Doh, 2011). The key features of the model include exploring useful feedback from past experience and 'feed-forward' data for the leader and others (e.g., stakeholders), proactive inferences and behaviors based on the SCPM context and process, as well as the leader's individual goals and shared responsibilities. These expectations are founded on the assumption that practitioners are healthy experts who are motivated to learn how to evolve towards their potential best transcendental capacities and rational thinking entities trying to make sense of their social surroundings. This implies that individual team managers will be proactive in receiving, processing, and using information to resolve problems. The model with supporting organizational culture enables proactive decision-making and encourages practitioners with higher expertise to help others with fewer abilities for overall team success (Pless, Maak, & Stahl, 2011; Jacobs & Klerk, 2007). Literature on social and non-social cognition suggests that individuals can learn, store, process, and recall information in a schematic form for sustainable growth and for making innovative decisions based on individual and group attributes (Treville & Antonakis, 2006). This chapter refers to this ability as a part of the 'transcendent' condition. From the organizational system designer's perspective, a socio-cognitive model assists
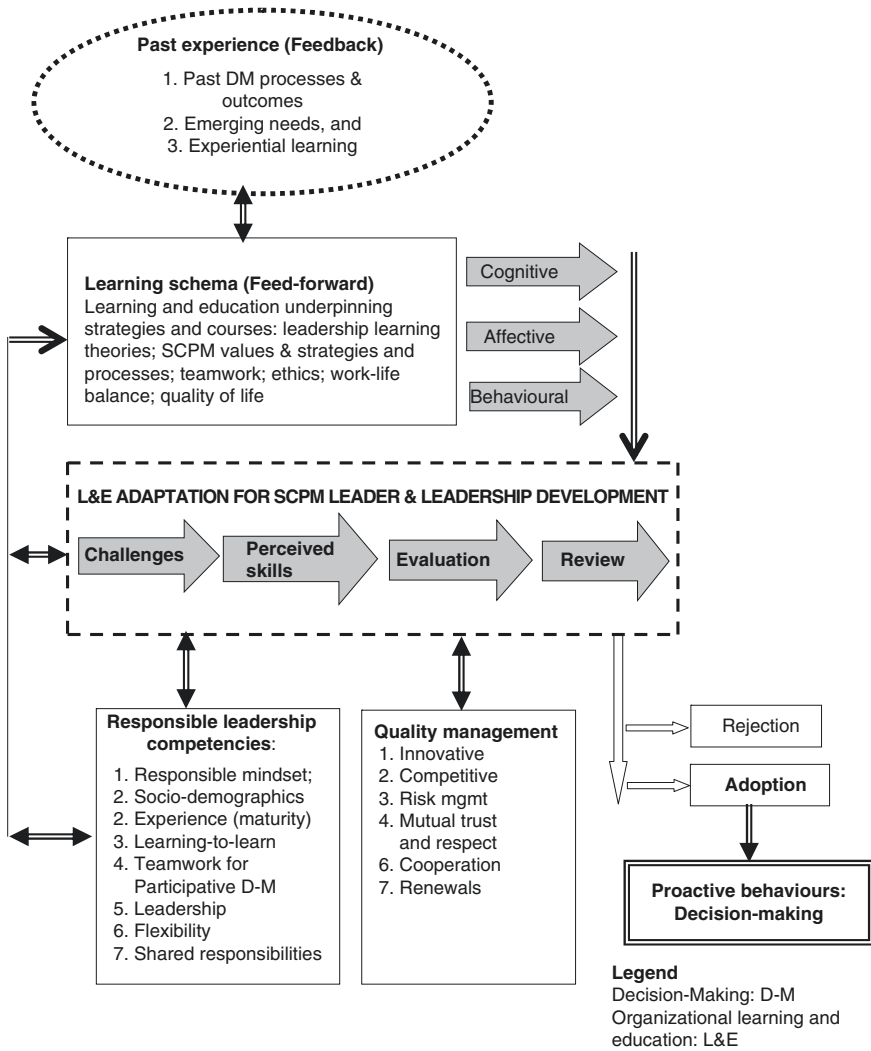
Past experience (Feedback)

1. Past DM processes & outcomes
2. Emerging needs, and
3. Experiential learning

Learning schema (Feed-forward)
Learning and education underpinning strategies and courses: leadership learning theories; SCPM values & strategies and processes; teamwork; ethics; work-life balance; quality of life

Cognitive

Affective

Behavioural

L&E ADAPTATION FOR SCPM LEADER & LEADERSHIP DEVELOPMENT

Challenges → Perceived skills → Evaluation → Review

Responsible leadership competencies:

1. Responsible mindset;
2. Socio-demographics
2. Experience (maturity)
3. Learning-to-learn
4. Teamwork for Participative D-M
5. Leadership
6. Flexibility
7. Shared responsibilities

Quality management
1. Innovative
2. Competitive
3. Risk mgmt
4. Mutual trust and respect
6. Cooperation
7. Renewals

Rejection

Adoption

Proactive behaviours: Decision-making

Legend
Decision-Making: D-M
Organizational learning and education: L&E

Fig. 3 Synthesis of key findings for conceptual socio-cognitive learning model

in the design of computer-supported infrastructure that could better address general issues encountered by distributed collectives, and the specific needs of different groups. The process requires recruitment and deployment of healthy, motivated and talented practitioners.

Leadership capacities for 'reflection' and 'action' permeate one another to create indivisible, synchronized, and continuous integration of performance. The process stimulates a conscious attempt to grow practitioners' capacities for effectiveness and innovation in performance, enabling leaders to respond

proactively to the challenges of dynamic environments. By integrating individual and team learning, the pedagogical package can be developed to build individual and stakeholders' capacities to reflect, share experiences, communicate, and coordinate actions, leading to higher organizational maturity. Moreover, a leader's personal development should include character-based ethics and values, which make major differences in building trusting relationships, and in the quality of performance (Hargrove & Sitkin, 2011; Strang & Kunhert, 2009). Furthermore, it is well known that recognition by peers of creative ideas and contributions of individual team members is one of the key aspects of collaborative teamwork. TL will create practitioners' capacities humbleness, confidence, and capacity of appreciation (Nicolas, 2004; Doloi, 2007; Hain et al., 2014). This adds to the value of organizational learning facilities to help practitioners to grow for holistic leadership.

Transcendent Leadership: Cross-Cultural Validity

Immanuel Kant (1712–1804) and Ralph Waldo Emerson (1803–1882) are considered leading transcendentalists in modern philosophy. Kant was apparently the first important German philosopher to have acquaintance with ancient Indian Vedanta philosophy. Emerson's writings reflected the influence of Eastern religions, but he also developed ideas from Western tradition and the works of Plato, Plotinus, and Aristotle. From Western and Islamic perspectives (e.g., Kluger, 2004; Razavi, 1997), the terms 'transcendental' (adjective) and 'transcendence' (noun) convey the literal meaning (from Latin) of going beyond, albeit with varying connotations in different historical and cultural stages for self-transcendence. Empirical data from scholars' work (e. g., Crossley, Cooper, & Wernsing, 2013; Crossan, Vera, & Nanjad, 2008; Dane & Pratt, 2007; Csikszentmihalyi, 2002) supports the applicability of TL in cross-cultural platforms and the 'leadership of self' as an integral component across levels. Spiritually, the 'transcendent state' reflects the highest level of consciousness of a healthy individual. With professional upbringing and motivation, an individual's mindset will evolve through sustained cultivation of professional spiritual practices. This includes meditations and carefully monitoring one's own mind, freeing it from petty selfishness in favor of constructive thoughts and words, result-oriented actions, critical thinking, and learning from reflections on self and others. From the creativity perspective, in the ultimate transcendent state, it is expected the practitioner will be fully relaxed and will have the capacity to call up all relevant experiences one

has had as an individual point of consciousness. The transcendent state seems to allow interpretation of new problems in the context of total experience, and interaction with team members to make use of the collective consciousness to make the best decisions for creative change. It is within this transcendental aspect of mindset one can proactively understand the objectives and purpose of life and work (e.g., Felder & Silverman, 1988; Puccio, Mance, & Murdock, 2011; Crossly, Cooper, & Wernsing, 2013). The truly transcendent state is rare. However, even above average progress results in significant growth in an individual's performance and ability to transcend increasing problems, maximize opportunities, and achieve bliss, happiness and the capacity for renewal. TL respects 'self-interest' but enables the leader to transcend narrow selfishness to higher levels and direct thoughts to moral and ethical aspects for the greater good of everybody, including the 'self' and the planet. Another key impact of TL is that it creates a high level of trust in the leader, which improves the leader's effectiveness and efficiency in facilitating team members to transcend excessive self-interest and 'marketing self' attitudes, and to garner commitment to progress toward a joint vision and triple bottom line sustainability (Pinto, Slevin, & English, 2009).

The challenges and opportunities inherent in SCPM, and the emphasis on pedagogical behaviors for the evolution of TL capacities, have far-reaching benefits. Nevertheless, facing highly challenging tasks without the required preparation may result in a waste of material and leadership resources, and dysfunctional stress and anxiety. It is important to find a balance between challenge level and perceived skill level. To facilitate performance at their sustainable best, leaders need challenges that are significant and interesting, but they also need well-developed knowledge and competencies, as well as a supportive organizational culture, to achieve the right level of performance (Seltzer, 2013). Thus, the 'transcendent leader' is strategic, interacting constructively with people from diverse cultures and leading within and across levels (Crossan, Vera, & Nanjad, 2008; Dane & Pratt, 2007). TL practitioners take greater responsibility to cultivate relationships and learning in the spirit of righteousness, morality, and caring for the self, others, and the environment. From the essence of the work of scholars, it appears 'professional spirituality', at the very minimum, is the subtle and not easily specifiable awareness that surrounds virtually everything, enabling practitioners to transcend petty self-interest. There is spirituality in nature, in art, in the bonds of love and fellow-feeling that hold a community together, and in the reverence for life and nature that appears to be the key to many philosophies as well as religions. Hence, as it relates to this research, professional spirituality is an expanded form of the self that is devoid of 'selfishness'. The 'spiritual humanists' are concerned with

fusing traditional religious behaviors onto the foundation of scientific humanist inquiry for the well-being of self and others and are committed to diversity, ecology, and respect for those with differing yet humane views (Tanyi, 2002). The terms professional spirituality and spiritual humanism in this chapter embrace this broad understanding and the ethical culture for SCPM leaders. Moreover, transcendent leaders connect proactively with future trends by looking past the inner drive that anchors personal behavior to ego-centric limitations. They focus on how an organization can move beyond just meeting its narrow economic goals and evolve, through ethical and moral leadership, to higher holistic performance for economic prosperity, responsible use of resources, protection of environment, quality of life, and so on, for sustainable competitive advantage. The process strengthens social relationships between the project manager (leader) and expert team members, raising one another to higher levels of performance, greater motivation, morality, and consciousness, reflecting the essence of spiritual humanism. It adopts professional spiritual values such as cross-cultural expertise, learning, and education to create sustainable optimism and continuous performance improvements. Leaders' behaviors and motives make the goals, values, and processes transparent and set exemplary personal examples for others to follow (Avolio & Gardner, 2005). From watching large number of companies trying to transform themselves into significantly better competitors, scholars (Kotter, 1995; Swift & Nodine, 2013) postulate that people spend most of their work time on the job in doing things and only a small fraction of that in formal training. It is obvious that most of the learning for change must occur while they are on the job.

The TL collaborative process promotes problem solving by 'reflection' within (at the solo and subgroup levels), and observing other members' reflections, which serve as insights and motivations for experiential learning and transcending to higher levels of introspection, innovation, and productivity. The core elements of TL are geared toward sustained creation of new knowledge for innovative capacities in (1) secular economic and management competencies; (2) underlying leadership across levels; (3) professional spirituality to infuse higher self-awareness and strengthen leaders' moral (ethical) values; (4) cooperation and coordination amongst an organization's managers and external stakeholders; and (5) masterly facilitation of expert team members for proactive decision-making.
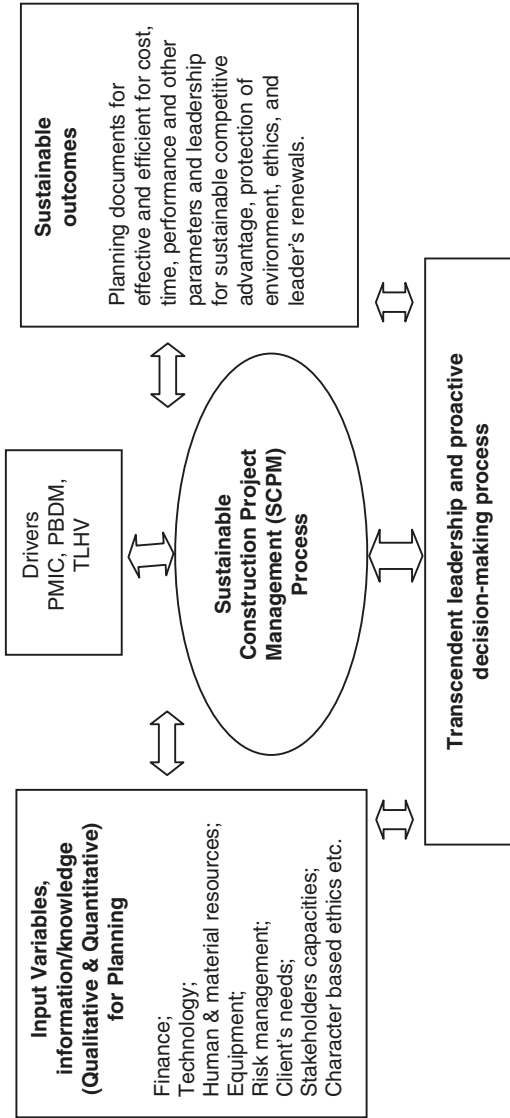
The connection with professional spirituality appears to bring integration of economic knowledge and expertise with faith, hope, peace, care of the environment, and empowerment as required. The results are responsible holistic performance combined with joy, forgiveness of self and others, awareness and acceptance of hardships and mortality, a heightened sense of physical and

emotional well-being, and the ability to transcend beyond the infirmities of existence (Tanyi, 2002). Thus 'spirituality' is a more practical and broader concept than religion. Researchers often endorse the notion of a supreme guiding force and interconnectedness as fundamental components of professional spirituality, including abilities to counter aberrations such as greed, selfishness, ego, and prejudice (Burkhardt, 1989; Tanyi, 2002). The following 'leadership' definitions incorporate empirical evidence and the spiritual dimensions more fully and provide alternatives for practitioners' development of personal styles of TL in the context examined in foregoing sections (Drucker, 2005; Snook, Nohria, & Khurana, 2012; Doh, 2011; Campbell, 2007; Doyle & Smith, 1999).

(a) 'Leadership' is the ability to influence and masterly facilitate healthy and expert team members, without force, into a particular direction, e.g., proactive decision-making that leaves them still feeling empowered and accomplished. TL provides a holistic vision and motivation, with understanding of the talents and styles of others, so that they work together toward the same goal and effectively motivate each other for team success.

(b) A true leader is secure in adapting the TL framework to their own leadership style that encourages others to tap into their own experience and ideas and freely contribute to the entire project or company.

(c) TL involves three critical aspects: (1) listening, inspiring, and empowering by self with TL mindset in setting the bar for transcendence increasingly toward individual highest potential level, that is, 'transcendent' state and then organizational supports for sustainable evolution of great performance and results; (2) knowing when to be in front to lead and guide a team, and when to step back and let others take the lead to fuel aspirations for self-development, innovative performance, and the chances to shine; (3) many people view management as leadership. It's not. TL improves social relationship abilities to harmoniously influence, others across multiple levels of practitioners' roles in lifting others up and working toward a common mission.

Sustainable Project Management System and Leadership of Self

Figure 4 incorporates the practical perspectives of implementing the insights and guidance provided in foregoing sections. It presents a partial framework for the complex organization and practice of the SCPM process, along with driving forces for sustainable outcomes.

Input Variables, information/knowledge (Qualitative & Quantitative) for Planning

Finance;
Technology;
Human & material resources;
Equipment;
Risk management;
Client's needs;
Stakeholders capacities;
Character based ethics etc.

Drivers
PMIC, PBDM, TLHV

Sustainable Construction Project Management (SCPM) Process

Sustainable outcomes

Planning documents for effective and efficient for cost, time, performance and other parameters and leadership for sustainable competitive advantage, protection of environment, ethics, and leader's renewals.

Transcendent leadership and proactive decision-making process

Legend:

1. PMIC: Construction Project Management Insight & Capacities;
2. PBDM: Proactive Behaviors in Problem Solving & Decision-Making;
3. TLH self-enhancement for work-life balance and community aspirations e.g., ethical leadership and protection of environment: Transcendent Leadership for Sustainability in Competitive Advantage and Holistic Leadership Values.

Fig. 4 Sustainable project management system: partial framework

This chapter has previously identified strategies and means that can advance leadership to transcendent levels. As discussed the potential outcomes from project management with such leadership include collaborative teamwork, work-life balance, collective expertise in eco-technology, sustainable growth of economics of production, equitable prosperity, responsible use of the planet's resources, elimination of wastage, protection of the environment, and sustainable competitive advantage. Here the 'competitive advantage' becomes truly holistic and sustainable, drawing on the previously unused innovative potential of professionally qualified practitioners. The proposed leadership of 'self' framework, though sophisticated, is easy to understand and includes a flexible modular system that can be adapted by diligent practitioners according to their individual style of leadership and situational needs.

Despite growing leadership literature, there is little attention paid to the critically important element that is the leader's personal development, or 'leadership of self'. This chapter contributes to addressing this gap. Building on the work of scholars (e.g., Crossan, & Mazutis, 2008; Dane & Pratt, 2007; Crossley, Cooper, & Wernsing, 2013; Strang & Kunhert, 2009), this chapter focuses specifically on the integral element of TL that is leadership of self. It is leadership of self that integrates the values and capacities examined in this chapter into the TL framework.

It appears that Confucianism and innate Buddhist values in Chinese culture continue to motivate people to a pedagogical attitude and spiritual behaviors in the family and students manifest an interest in self-development in school and tertiary education. Social values in education contribute to the country's drive for economic growth, and students' individual career needs provide the psychological base and infrastructure for skill acquisition, hard work, patience, and perseverance, which have contributed to the strong economic growth of Confucian societies of China and the East Asian 'Five Dragons': Hong Kong, Japan, Singapore, Korea, and Taiwan (Kyung, 2007; Hofstede & Bond, 1988). India is the world's largest democracy, with an ancient culture, rich spiritual heritage, and traditional practices derived from scores of incoming new cultures, including the significant impact of the UK, which is traditionally distinct yet transcending and interwoven in various ways. The power behind the recent surge in India's economy appears to have been the country's ancient culture, a large education system, and the pressing need to improve the lot of millions of poor people. For instance, the National Council of Rural Institutes aims at Human Resource Development and capacity building education for rural change and contributes to the growth process as a catalyst organization. It interfaces with rural institutes like Rural

Universities, Rural Development Institutes, and self-help groups, which can make lasting difference to the life and living standards of the rural masses (Prabhath, 2011). The TL framework fit in admirably to the national cultures and strategies in both China and India, and would provide effectiveness and satisfying experiences in interaction with community stakeholders.

For an insight on how Indian business leaders drive their organizations to high performance, the author refers to the record of interviews of senior executives of 98 of the largest India-based companies, including Infosys, Reliance, Tata, Mahindra & Mahindra, Aventis Pharma, and others. In conversations with the leaders, a picture emerged of a distinctive Indian model of leadership. None of the people interviewed suggested that their companies had succeeded because of their own cleverness at strategy or even because of the efforts of a top team. They did not mention skill in financial markets, mergers and acquisitions, or deal-making—talents that Western CEOs often claim underpin their companies' performance. Almost without exception, these Indian leaders posit 'their source of competitive advantage lay deep inside their companies, in their people'. Pressed to explain, one of leaders said that he sought enough 'transparency' and 'empowerment' in the company and that 'decisions would be made at the points where the decisions should be made' – that is, by employees, where the company meets the client. These companies are growing even faster than India's red-hot economy (Cappelli et al., 2010).

The work of scholars (e.g., Crossan & Mazutis, 2008; Dane & Pratt, 2007; Crossly, Cooper, & Wernsing, 2013, etc.) emphasizes the importance of a leader's personal attributes similar to those examined for TL is central to breakthrough performance, for evolution of capacities to transcend endemic problems, deal with emerging problems and opportunities for economic competitive advantage, and continue to synthesize eco-technology into sustainable holistic competitive advantage with prosperity for all.

Figure 5 shows the process of sustainable growth of a leader's capacities in five key aspects: governance; organization of strategies for integration of people and processes; eco-technology; leadership processes for planning, decision-making, and teamwork, underpinned by right learning and education, and experience in the TL context; and professional spiritual capacities that balance a leader's perseverance for deep consciousness toward optimal capacities. In this context, the leadership of self is described as the personal capacity for normatively appropriate conduct to transcend through personal *knowledge–thoughts–words–actions* in social relationships, and the promotion of proactive behaviors including character-based ethics, experiential learning,

Fig. 5 Leadership of 'se*lf*': learning and education

and clear communication for planning, decision-making, high performance, and so on (Fehr, Yam, & Dang, 2014; Crossan, Vera, & Nanjad, 2008). However, researchers (e.g., Thomas & Mengel, 2008; Yang, Phelps, & Steensma, 2010) elucidate that leaders are one element of an interactive organizational network that is often bigger than the leadership process. This research recognizes this and suggests the need for greater awareness among top executives of the essential need for proper supporting culture and infrastructure for TL success.

Conclusions

Infrastructure (engineering) construction projects are often large, highly complex, and critically important for communities' well-being. These projects suffer high rates of failures in China, India, and elsewhere in terms of economic measures, satisfying social aspirations and protection of environment. Based on a significant review of multidisciplinary literature, this chapter posits that project failures arise from engineering projects' own unique sets of issues, including generic elements, such as leadership and governance; management of stakeholders and teams; planning; risks, decision-making; communication; and so on. Often it is a complex set of entwined internal and external problems that cumulatively result in failures.

Engineering projects are unique and practitioners have individualized leadership styles and aspirations. There is no one-size-fits-all solutions to leadership problems.

This chapter contributes a flexible holistic version of TL framework for sustainable construction project management. It allows developing the intrinsic transcendental capacities of healthy, university-educated practitioners, with the support of organizational learning and education, and insights and guidance for them in the chapter to adapt their individual leadership styles for TL processes. The literature endorses the TL process as a way to stimulate practitioners' masterly facilitation of expert internal and external stakeholders, for greater collaboration, proactive planning and decision-making, innovative performance, motivation, morality, and consciousness not only for reduction of project failures but also to deliver triple bottom line sustainability in profitability, people, and protection of the environment.

TL and its benefits are not myths. Rather TL represents a strategic weapon in construction projects of the future and thus contributes to the transformation of economies in India and China, and potentially Asia. Implementing TL requires commitment of the top management, development of supportive organizational culture and a pedagogical framework, as well as rewards for talented practitioners.

References

Antons, D., & Piller, F. T. (2015). Opening the black box of 'not invented here': Attitudes, decision-biases, and behavioral consequences. *Academy of Management Perspectives*, *292*: 193–217.

Avolio, B. J., & Gardner, W. I. (2005). Authentic leadership development: Getting to the root of positive form of leadership. *The Leadership Quarterly*, *10*(3): 315–338.

Bellis, P. (2003). Project methodologies: An introduction to PRINCE2, JISC, Infonet UK.

Burkhardt, M. A. (1989). Spirituality: An analysis of the concept. *Holistic Nursing Practice*, *3*: 69–77.

Campbell, C. R. (2007). On the journey toward wholeness in leader theory. *Leadership and Organization Development Journal*, *28*(2): 137–153.

Cappelli, P., Singh, H., Singh, J. V., & Useem, M. (2010). Leadership lessons from India. *Harvard Business Review*, March 2010. https://hbr.org/2010/03/leadership-lessons-from-india/ar/1. Downloaded February 2016.

Collinson, D., & Tourish, D. (2015). Teaching leadership critically: New directions for leadership pedagogy. *Academy of Management Learning & Education*, *14*(4): 576–594.

Crossan, M., Vera, D., & Nanjad, L. (2008). Transcendent leadership: Strategic leadership in dynamic environments. *The Leadership Quarterly*, *19*: 569–581.

Crossan, M., & Mazutis, D. (2008). Transcendent leadership. *Business Horizons, Elsevier*, *51*(2): 131–139.

Crossley, C. D., Cooper, C. D., & Wernsing, T. S. (2013). Making things happen through challenging goals: Leader proactivity, trust, and business unit performance. *Journal of Applied Psychology*, *98*(3): 540–549.

Csikszentmihalyi, M. (2002). *Flow: The classic work on how to achieve happiness*. London: RIDER.

Dane, R., & Pratt, M. G. (2007). Exploring intuition and its role in management decision making. *Academy of Management Review*, *32*(1): 33–54.

Doh, J. P. (2011). Introduction: Reflecting backward to move ahead. *Academy of Management Learning & Education*, *10*(2): 296–298.

Doloi, H. K. (2007). Developing an integrated management system for optimising project options. *Journal of Enterprise Information Management*, *20*(4): 465–486.

Doyle, M. E., & Smith, M. K. (1999). *Born and bred? Leadership, heart of informal education*. London: The Rank Foundation. http://www.rankyouthwork.org/bornandbred/index.htm. Retrieved 16 October 2012.

Dragoni, L., Tesluk, P. E., & In-Sue, Oh. (2009). Understanding managerial development: Integrating developmental opportunities in predicting managerial competencies. *Academy of Management Journal*, *52*(4): 731–743.

Drucker, P. F. (2005). Managing oneself. *Harvard Business Review on Managing Oneself*, 151–175.

Fehr, R., Yam, K. G., & Dang, C. (2014). Moralized leadership: The construction and consequences of ethical leader perception. *Academy of Management Review*, *40*(2): 182–209.

Felder, R. M., & Silverman, L. K. (1988). Learning and teaching styles in engineering education. *Engineering Education*, *78*(7): 674–681.

FMI. (2014). U.S. construction industry talent development report, FMI Consultation Group. http://www.fminet.com/catalogsearch/advanced/result/?name=FMI&author. Downloaded February 2016.

GOI. (2015). Joint statement on climate change between India and China during Prime Minister's visit to China, Government of India Prime Minister's Office Press Information Bureau 15 May 2015 10:27 IST, http://pib.nic.in/newsite/PrintRelease.aspx?relid=121754. Downloaded 19 March 2016.

Guterstam, B. (1996). Demonstrating ecological engineering for wastewater treatment in a Nordic climate using aquaculture principles in a greenhouse mesocosm, proceedings of Ecotechnics '95 – International Symposium on Ecological Engineering in Ostersund, *Sweden Ecological Engineering Elsevier*, *6*(1–3): 73–97.

Hain, T., Preuss, L., Pinkse, J., & Figge, F. (2014). Cognitive frames in corporate sustainability: Managerial sense making with paradoxical and business case frames. *Academy of Management Review*, *39*(4): 463–487.

Hallgren, M., & Wilson, T. L. (2008). The nature and management of crisis in construction projects: Projects-as-practice observation. *International Journal of Project Management*, *26*: 830–838.

Hargrove, D., & Sitkin, S. B. (2011). New generation leadership development in a complex environment: An interview with General Martin E. Dempsey. *Academy of Management Learning and Education*, *10*(3): 528–533.

Hofstede, G., & Bond, M. H. (1988). The Confucius connection: From cultural roots to economic growth. *Organisational Dynamics*, *16*(4): 5–21.

Iman, A., & Siew, H. Ow. (2008). Project management practices: The criteria for success or failure. *Communications of the IBIMA*, 1: 234–241. http://www.ibimapublishing.com/journals/CIBIMA/volume1/v1n28.pdf. Downloaded February 2016.

Jacobs, B., & de Klerk, H. M. (2007). Understanding female consumers' risks perception for apparel purchasing on the internet. *Journal of Family Ecology and Consumer Sciences*, *35*: 47–58.

Johnson, G., Whittington, R., Scholes, K., Angin, D., & Regner, P. (2014). *Exploring strategy: Text and cases*. Harlow, UK: Pearson.

Kluger, Jeffrey. (2004). Is god in our genes? *Time (Time Inc.)*. www.time.com/time/magazine/article/0,9171,1101041025-725072,00.html. Downloaded February 2016.

Kotter, J. P. (1995). Leading change: Why transformation efforts fail? *Harvard Business Review*, Mar-Apr: 59–67. http://www.gsbcolorado.org/uploads/general/PreSessionReadingLeadingChange-John_Kotter.pdf. Retrieved 26 August 2016.

KPMG. (2009). The state of corporate governance in India – A Poll, Report of the Audit Committee Institute, involved over 90 respondents comprising CEOs, CFOs, independent directors and similar leaders, who were asked about the journey, experience and the outlook for corporate governance in India. KPMG (India) is affiliated with KPMG International. http://www.amchamindia.com/cg_survey_report.pdf.

Kyung, H. K. (2007). Exploring the interactions between Asian culture (Confucianism) and creativity. *Journal of Creative Behaviour*, *41*(1): 28–53. http://onlinelibrary.wiley.com/doi/10.1002/j.2162-6057.2007.tb01280. Downloaded February 2016.

Lewis, J. L. (2015). *Green Innovation in China, China's Wind Power Industry and the Global Transition to a Low-Carbon Economy*. Columbia University Press, p. 304. http://www.amazon.com/dp/0231153317. Downloaded February 2016.

Lynn, C. (2000). Profiling the competent project manager. In: *Project management research at the turn of the millenium, proceedings of PMI research conference*, June 21–24, Paris, France (pp. 3–15).

Mirvis, P. (2008). Executive development through consciousness-raising experiences. *Academy of Management Learning & Education*, *7*(2): 173–188.

Mukerji, D. (2012). Study to improve decision-making processes in construction planning to reduce project failures, PhD Thesis, SKEMA University Business School Lille, France.

Mukerji, D. (2013). A study to improve decision-making processes in construction planning to reduce project failures: A thesis research note. *European Journal of Management*, *13*(3): 85–102.

Nelson, J. K., Poms, L. W., & Wolf, P. P. (2012). Developing efficacy beliefs for ethics and diversity management. *Academy of Management Learning and Education*, *11*(1): 49–68.

Nicolas, R. (2004). Knowledge management impacts on decision making process. *Journal of Knowledge Management*, *8*(1): 20–31.

OECD. (2013) Economic outlook for Southwest Asia, China and India 2014 beyond the middle-income trap; Full report available on line at http://dx.doi.org/10.1787/saeo-2014.

OGC. (2005). Managing successful projects with PRINCE2, Her Majesty's Stationary Office with the permission of Government Commerce UK London.

Pinto, J. K., Slevin, D. P., & English, B. (2009). Trust in projects: An empirical assessment of owner/contractor relationships. *International Journal of Project Management*, *27*: 638–648.

Pless, N. M., Maak, T., & Stahl, G. K. (2011). Developing responsible global leaders through international service learning programs: The Ulysses experience. *Academy of Management Learning & Education*, *10*(2), 237–260.

PMBOK. (2013). *A guide to the project management body of knowledge* (PMBOK Guide 5th Edition). USA: Project Management Institute.

Prabhath, S. V. (2011). Role of education and culture in rural development. *National Council of Rural Institutes (NCRI) Newsletter*, 2.4, April 2011. http://www.mkgandhi.org/articles/role_edu.htm. Downloaded January 2016.

Puccio, G. J., Mance, M., & Murdock, M. C. (2011). *Creative leadership: Skills that drive change*. SAGE (Google Book).

Quatro, S. A., Waldman, D. A., & Galvin, B. M. (2007). Developing holistic leaders: Four domains for leadership development and practice. *Human Resource Management Review*, *17*: 427–441.

Razavi, M. A. (1997). *Suhrawardi and the school of illumination*. Routledge, ISBN: 0-7007-0412-4.

Rogers, S. (2011) What is eco-friendly technology? *Mother Nature Network*, 10 July 2016. http://www.mnn.com/green-tech/computers/stories/what-is-eco-friendly-technology. Downloaded July 2016.

Schmidt, G. A. (2009). Spurious correlations between recent warming and indices of local economic activity. *International Journal, Climatology*, *29*: 2041–2048. doi:10.1002/joc.1831.

Scott-Young, C., & Samson, D. (2008). Project success and project team management: Evidence from capital projects in the process industries. *Journal of Operations Management*, *26*: 749–766.

Seltzer, L. F. (2013). Evolution of the self, on the paradoxes of personality. *Psychology Today*, June 2013. www.psychologytoday.com/contemporary-humanism-and-spirituality.

Shenhar, A. J. (2004). Strategic project leadership: Toward a strategic approach to project management. *R&D Management*, *34*(5): 569–578.

Shenhar, A. J., & Dvir, D. (2007) *Reinventing project management: The diamond approach to successful growth and innovation*. Boston Mass: Harvard Business School Press. https://books.google.com.au/. Downloaded March 2016.

Smith, M. K. (2012). What is pedagogy? *The Encyclopaedia of Informal Education*. http://infed.org/mobi/what-is-pedagogy/. Retrieved 31 December 2015.

Snook, S., Nohria, N., & Khurana, R. (2012). *The handbook for teaching leadership: Knowing, doing, and being*. Los Angeles: SAGE.

Srivastava, P. (2015). Eco-friendly technologies and its effects. *International Journal of Research Granthalayah*, India. *3*: 1–3. http://www.mnn.com/green-tech/computers/stories/what-is-eco-friendly-technology. Downloaded July 2016, downloaded January 2016.

Strang, S. E., & Kunhert, K. W. (2009). Personality and leadership development levels: Predictors of leader performance. *The Leadership Quarterly*, *20*: 421–433.

Swift, S., & Nodine, M. (2013). Skills that matter: The reality and importance of learning on the job. *Leadership and Management in Engineering, American Society of Civil Engineers*. http://ascelibrary.org/doi/abs/10.1061/(ASCE)LM.1943-5630.0000246. Retrieved 26 August 2016.

Tanyi, R. A. (2002). Towards clarification of the meaning of spirituality, Blackwell Science Ltd. *Journal of Advanced Nursing*, *39*(5): 500–509.

Thomas, J., & Mengel, T. (2008). Preparing project managers to deal with complexity – Advanced project management education. *International Journal of Project Management*, *26*: 304–315.

Toor, S., & Ofori, G. (2008). Leadership for future construction industry: Agenda for authentic leadership. *International Journal of Project Management*, *28*: 620–630.

Treville, S., & Antonakis, J. (2006). Could lean production job design be intrinsically motivating? Contextual, configurational and levels of analysis issue. *Journal of Operations Management*, *24*: 99–123.

Uhl-Bien, M. (2006). Relational leadership theory: Exploring the social processes of leadership and organizing. *The Leadership Quarterly*, *17*: 654–676.

UNO COP21. (2015). United Nations framework convention on climate change, Conference of the Parties (COP), 21st session, November–December 2015, Paris France. http://unfccc.int/meetings/paris_nov_2015/meeting/8926.php. Downloaded March 2016.

Wiki. (2016a). Ecotechnology, Wikipedia, the free encyclopedia. https://en.wikipedia.org/wiki/Ecotechnology. Downloaded July 2016.

Wiki. (2016b). China–India relations, Wikipedia, the free encyclopaedia. https://en.wikipedia.org/wiki/China%E2%80%93India_relations. Downloaded March 2016.

Willems, E. P. (1974). Behavioral technology and behavioral ecology. *Journal of Applied Behavior Analysis*, *7*(1): 151–165. http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1311658/bin/jaba00059-0153.tif.

Wang, H., & Yang, H. (2009). China technology development and management in the context of economic reform and opening. *Journal of Technology Management in China*, *4*(1): 4–25.

Watson, D. M. (2001). Pedagogy before technology: Rethinking the relationship between ICT and teaching. *Education and Teaching Technologies*, *6*(4): 251–266. Kluwer Academic Publishers, The Netherlands.

Yang, H., Phelps, C. C., & Steensma, K. (2010). Learning from what others have learned from you: The effects of knowledge spillovers on originating firms. *Academy of Management Journal*, *23*: 371–389.

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