

# PROJECT LEADERSHIP: A GLOBAL STUDY OF NEW TRENDS

George Ofori<sup>1</sup> and Shamas-ur-Rehman Toor<sup>2</sup>

<sup>1</sup> Professor, Department of Building, School of Design and Environment, National University of Singapore, Singapore

<sup>2</sup> Lecturer, Faculty of the Built Environment, University of New South Wales, Sydney, Australia

Correspond to [bdgofori@nus.edu.sg](mailto:bdgofori@nus.edu.sg)

**ABSTRACT:** Project leadership lifts management to a new level where projects are seen as strategic weapons that help firms to develop competitiveness. For too long, the focus on projects has been on short-term, tool-oriented management. There is a need for fresh understanding of project leadership and appreciation of its importance. A state-of-the-art review of research on leadership in project management is presented. Results of an aspect of a global study on leadership in the construction industry are discussed. The need for project managers to be effectively developed as leaders is underscored.

*Keywords: Project Leadership; Project Management; Construction Industry; Authenticity*

## 1. INTRODUCTION

Many studies show that projects often fall short of achieving their anticipated results. Smith [1] argues that projects do not fail due to lack of project management, but rather from a lack of project leadership. Project managers are considered to be often so obsessed with short-term goals that they forget to offer much needed leadership on projects. In other words, project management alone does not work; project managers must be able to lead effectively. Most project professionals are the products of academic programmes with a strong technical content and some coverage of management [2]. Despite the long-standing argument that leadership differs from management [3; 4], emphasis on managerial functionalism in education and research continues to blur the boundaries between them [5]. Shenhar [6] argues that contrary to the traditional take on project performance (on-time, on-budget, on-quality, efficiency, and operational performance), companies need to take a strategic look at their projects. They should consider projects as powerful weapons [7] through which they can enhance their competitiveness and create value for their clients and other stakeholders.

Several studies found that the leader of the project is a critical success factor. Success does not necessarily lie in the leader's technical skills alone. As project leader, the project manager has to fulfil the roles of facilitator, coordinator, motivator and politician [8]. Thite [9] suggests that organizations of our age are going through a massive transformation owing to globalization, restructuring, flatter organisational structures, outsourcing, and emergence of knowledge workers, boundarylessness of teams and the virtual organisations. To obtain results from knowledge workers, money is not the only incentive. They need recognition, participation, motivation and appreciation to perform beyond their potential. Thus, the task-oriented leadership style common on projects should be replaced with a participative, result-oriented style.

Therefore, it is important to consider the paradigm of project leadership to examine what it takes to be an effective project leader today. Kaulio [10] observes that research on project leadership is still inadequate although several authors had suggested that more work should be done. An attempt is made here to review works on project leadership in general and in the context of construction. It is shown that project leadership is different from project management, and that the role of project managers is changing; thus, leadership is

now even more important. Results from an empirical survey are presented to show global trends in project leadership in construction.

## 2. PROJECT LEADERSHIP: A REVIEW

### 2.1 History of Project Leadership

The philosophical discourse on 'leadership' goes back to early philosophers such as Aristotle, Plato, Confucius, and Sun Tzu. Research on leadership in the organizational context can be traced back to the early twentieth century when scholars realized that leadership played a vital role in organizational management. However, reference to "project leadership" started only in the last two decades when scholars recognized that project leadership is different from organizational leadership. The term first appeared in the *International Journal of Project Management* in the early 1980s [11]. Slevin and Pinto [12] used the term for the first time in the *Project Management Journal*. Only recently did it first appear in *Construction Management and Economics* [13] and in *Engineering, Construction and Architectural Management* [14]. A search for "project leadership" in the library of the American Society of Civil Engineers (ASCE) did not produce any results although the society publishes many journals on construction management. Some books published in the 1990s carried "project leadership" in their titles (see, for example, 8; 15). Some other project management books devote a complete chapter [see, for example, 16; 17] or a section [18; 19; 20] to "project leadership".

### 2.2 Project Leadership in Construction

Toor and Ofori [21] reviewed works on leadership in the construction management literature and observed that empirical works on effectiveness and performance of construction leaders appeared in the 1980s [22; 23]. In the 1990s, the focus moved onto leadership style, attributes, and behaviours of project leaders [see, for example, 24; 25]. Toor and Ofori [21], however, argue that leadership research in construction has relied on old frameworks and empiricism embedded in the positivist approach. Chan [5] also observes that the understanding of leadership in construction is primitive as it heavily depends on managerial functionalism.

There has been a recent surge of interest in project leadership. Studies have addressed behaviours, traits and

styles [26], leadership models [27], cross-cultural issues [28; 29], leadership development [5; 30], emotional intelligence [31], negative sides of leadership [32], ethical issues [33], and authenticity and psychological well-being [34]. The establishment of CIB Task Group 64 on Leadership has ushered in a new era of research on construction project leadership. Toor and Ofori [30] proposed a research agenda for leadership in construction. Observing this growing interest, McCaffer [35] emphasized the need for a concerted effort by researchers around the globe, noting: "What is needed is a global research institute concentrating on leadership development in construction" (p. 306).

### 2.3 Nature of Project Leadership

Cleland [36] defines project leadership as "a presence and a process carried out within an organizational role that assumes responsibility for the needs and rights of those people who choose to follow the leader in accomplishing the project results" (p. 86). To Kloppenborg et al. [37], project leadership is "the systemic application of leadership understanding and skills at each stage of a project life cycle" (p. 15). Norrie and Walker [38] define it as "the higher pursuit of the project team's creating purposeful, strategic action that will augment the organization's business strategy and achieve results within the norms and values of the organization" (p. 48).

The most recent focus of work on project leadership is on strategic leadership. Shenhar [6] argues that project management must evolve into strategic project leadership that can focus on building corporate competitiveness and adding value to organizational capital. However, some features of project leadership make it different from organizational leadership. Some of these features are that project leadership: (i) focuses on a single, unique project; (ii) mostly deals with short-term goals but has to find long-term solutions; (iii) coordinates across teams which are not accustomed to working with each other; (iv) is constrained by limited time and budget; (v) involves sound technical know-how; (vi) focuses on the project life-cycle; (vii) deals with stakeholders with diverse backgrounds and often competing interests; (viii) deals with loose and changing structure of the project and project team; (ix) faces an environment of uncertainty; (x) does not enjoy direct control or formal authority over teams or persons involved in the project; (xi) has to perform

both internal and external roles related to the project; and (xii) must establish a fine balance between leadership and management. These features of project leadership show that the complex and dynamic nature of projects typically poses distinct challenges to a leader, making his/her job more exigent, multi-faceted, and demanding.

## 2.4 Effective Project Leaders

What makes an effective project leader? There have been many studies on behaviours and skills of project leaders. Smith [1] observes that good project leaders do not function by giving orders, but have a 'roll-up the sleeves' attitude; they are willing to contribute to the job even by dirtying their hands. Strang [39] believes effective project leaders are well aware of their behaviour, traits, and skills and they try to reconcile their traits and behaviours with the requirements of the situation and the context in which they function. Behaviours that are mentioned frequently in relation to project leadership include: visioning [40], inspiring [41], goal setting [42], listening and empathizing [43], considerate decision making [44], facilitating [26], rewarding [45], coaching/teaching [26], people oriented [46], and task orientation [24]. Toor and Ogunlana [44] found some behaviours that were considered important for successful project leadership on mega construction projects in Thailand included: goal setting, leadership by example, management of conflicts, facilitation of interaction, flexibility and accommodative attitude in decision making, result-orientation. They also showed that the use of authority and punishment was among the lowest rated leadership behaviours.

Competencies that are covered in the discourse on project leadership include team skills, interpersonal skills, project management skills, communication skills, organizational skills, and technical skills. In a study of Thai and expatriate managers, Toor and Ogunlana [47] found the following competencies to be vital for leaders on cross-cultural projects: communication, teamwork, and personal and interpersonal skills. They also found that flexibility in decision making, persistent performance, good listening skills and problem-solving style were also highlighted among the top-rated competencies of cross-cultural leaders.

Thoms and Pinto [18] underscore the importance of time orientation for project leaders. They suggest that project leaders must develop a range of temporal skills that match

various situations and tasks they have to address. They note that temporal alignment (one's basic orientation towards the past, present and future, made up of psychological constructs such as timeline orientation, future time perspective, time span, and time conception) between the temporal skills (time wrapping, creating future vision, chunking time, predicting, recapturing the past) and requirements of the situation is vital for effective performance of project leaders. Temporal alignment can be useful in problem solving, team member evaluation, scheduling, managing multiple tasks, contingency planning, and creating a vision of the project.

With respect to leadership style, Slevin and Pinto [12] emphasize that it is the situation on projects that determines the style of the project leader. Hence, the leader may even have different styles during different project phases. Lee-Kelley and Loong [45] studied whether the project leader's orientation is related to the leader's situational perception of project control. They found only partial support for the proposed relationships. Several other researchers also agree that leadership style should vary according to the situation and the leader must find a fit between his/her style, those who are being led, and situational factors and demands [11; 48]. Rosenbaum [49] maintains that effective leaders of technical projects are coaches and mentors who coach their followers to develop them and to expand individual productivity through team work. Mustapha and Naoum [50] showed that high performing site managers employ a leadership style that is focused on team management. This is supported by Fraser [51] who found that site managers scoring high on the effectiveness scale favoured team-style leadership; those managers following a production style of leadership scored the lowest of all; and managers using a compromise leadership style had middle-range effectiveness scores. Ogunlana et al. [52] also found that the relationship-oriented leadership style was more appropriate than the task-oriented style for project managers in Thailand. Odusami et al. [53] found that the most appropriate leadership style for Nigerian project leaders is that of the "consultative autocrat" (similar to the team leadership style).

Barber and Warn [54] use the analogy of fire-fighting to describe a good project leader. They note that a reactive project leader is like a fire-fighter who responds when problems have already occurred. A proactive project leader pre-empts the problems and prevents the problems

from occurring. Thus, an effective project leader is a “fire-lighter”; who is able to inspire a shared commitment, encourage reflection before action, and coach others to achieve demanding objectives. Makilouko [40], in his study of multicultural projects, found that the majority of project leaders adopted a task-oriented leadership style. They also showed cultural blindness, ethnocentrism, parochialism, or in-group favouritism. Leaders who indicated almost solely relationships-orientation, or both task and relationships-orientation, indicated also cultural sympathy and leadership strategies to maintain team cohesion and to avoid cross-cultural problems.

### 2.5 Authentic Project Leader

The above section shows that particular leadership styles or sets of traits have their own importance for leadership. However, recent research shows that authenticity is fundamental to good leadership; it is the basis of effective leadership that is ethical, moral, trustworthy and inspiring. Authenticity means “to thine own self be true”, as the old Greek adage goes. In social psychology, authenticity is the unobstructed operation of one’s true, or core, self in one’s daily enterprise [55]. Authenticity of leadership is “a pattern of leader behaviour that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self development” [56, p. 94].

Therefore, authentic leaders are highly self-aware individuals whose behaviours, decisions and actions are driven by their moral values and are focused on the well-being of their followers and organizations. To George [57], authentic leaders have a sense of purpose, practise solid values, lead with heart, and establish connected relationships. Such leaders empower others rather than concentrating power around them. They are consistent and self-disciplined individuals and never compromise on their principles. In addition to these characteristics, Toor and Ofori [30] note that authentic project leaders have good comprehension of cultural sensitivities, and are highly motivated and self-aware. They understand the demands of the project from the perspectives of the key stakeholders, and give their best to make the project a success for all of them. From their experiences, they are able to reflect on a situation, evaluate the context and make informed

decisions.

### 2.6 Project Leadership and Project Management

For three decades, there have been efforts to differentiate leadership from management [3; 4]. As Toor and Ofori [30] argue, leadership is long-term, visionary, and purpose-oriented, and seeks to attain innovation and change, while management is short-term, narrow, and task-focused, and aspires to achieve control and stability. Similarly, leaders and managers are different as they apply different conceptualizations and approaches to work, exercise different problem-solving approaches, undertake different functions, and exhibit different behaviours owing to their different intrinsic and extrinsic motivations. However, there have been very few efforts to differentiate project leadership from project management as well as organizational leadership. Norrie and Walker [38] note that project management is the day-to-day implementation of a project plan to achieve pre-determined objectives within time and cost constraints. This limits the strategic thought process of project managers and impairs their vision for their people and organizations.

Projects are effectively about, and involve, people. Therefore, for projects to be successful, greater importance should be given to people-related issues [58]. This underpins the importance of good leadership that can steer groups involved in projects towards attaining a common purpose [47]. Therefore, the project leader should not focus only on the structural aspects of the projects (such as planning, scheduling, and controlling).

To ensure that projects add value and generate well-being throughout their life-cycle, they must be planned and executed strategically in all dimensions. To attain this, project management should be augmented with project leadership. Shenhar [6] suggests that strategic project leadership shifts the focus in project management “from efficiency only to effectiveness and efficiency; from operational issues to strategic, operational, and human; and from getting the job done, to getting the business results and winning in the market place” (p. 571). As Gilbert [11] puts it, management is not sufficient to achieve project goals. Project management, therefore, must be complemented with project leadership that acts as a force of cohesion and catalyst, lifts management from routine bureaucracy, creates the environment for creativity and motivation, and helps

achieve the strategic goals of projects. Norrie and Walker [38] propose a new perspective: projects should be completed on-time, on-budget, on-quality, and more importantly, on-strategy.

### 3. GLOBAL SURVEY

#### 3.1 Survey Approach

To examine global trends in project leadership in construction, a survey was launched online. The main motivation was to explore how construction professionals perceive the level authenticity at various levels. Invitations to complete the survey were sent to construction professionals around the world by e-mail. Some professional bodies were contacted to send the survey invitation to their members. Social networking platforms such as Facebook ([www.facebook.com](http://www.facebook.com)) were also used to send invitations to relevant social groups. Snowball sampling was adopted for the survey.

The survey asked questions related to 'leadership ethics and authenticity', at group/dyadic level and organizational level. Respondents were also asked to rate their perceptions of various attributes of authentic project leaders. Some 270 responses were received from 42 countries. Nineteen incomplete responses were rejected. For this paper, data were analyzed only for the countries with ten or more respondents. With this criterion, the first ten countries in Table 1 were considered in the analysis. The total number of respondents from these countries is 191.

#### 3.2 Data Analysis and Findings

The results of the analysis of variance (ANOVA) showed that the respondents generally agreed in their responses to the questions regardless of nationality. Cronbach's alpha was also computed for the 30 items shown in Table 2. The high value (0.972) showed high internal reliability within this part of the questionnaire. Table 2 shows mean scores, standard deviations, and relative importance indices (RIIs) for various questions. The mean scores show that the respondents were not satisfied with their immediate leaders. Except item 19 ("My leader is intellectually smart"), all other items have mean scores below 4.0 on a five point Likert-type scale – where 3.0 denotes "neutral" and 4.0 denotes "agree". Moreover, the overall score (111) of the sample (N=191) – computed by adding all the mean scores – is not

significantly different from the overall score of individual countries. Leaders in Hong Kong obtained the lowest score (104), implying relatively low satisfaction of respondents with their leaders, whereas the United States had the highest score (119). The overall score of 111 is much lower than the maximum score of 150. This again indicates low satisfaction of respondents with their leaders' ethics and authenticity.

Table 3 shows views of respondents on the working environment and human-resource policies and practices in their organizations. Again, the mean scores of all nine items are below 4.0; and the means on items 8 and 9 are very low. This indicates that construction organizations do not have human resource strategies and practices relevant to today's knowledge workers, as suggested by Thite [9].

The respondents were specifically asked whether they had "personally experienced, observed, or heard of professional acts or transactions" they would consider unethical. The response is shown in column 6 in Table 3; they indicate that the majority of the respondents were either neutral (3.0) or below. The mean is highest for Hong Kong and lowest for the UK. The overall score on satisfaction with ethics and authenticity of leadership within organization is well below 45 (maximum possible score) for all countries; Indonesia scored the highest (35.30) and Hong Kong the lowest (31.30).

Table 1. Respondents from various countries

No.	Country	Respondents	No.	Country	Respondents	No.	Country	Respondents
1	Singapore	48	15	Thailand	3	29	Congo	1
2	Pakistan	39	16	UAE	3	30	Croatia	1
3	India	25	17	Uganda	3	31	Ghana	1
4	Australia	14	18	Finland	2	32	Italy	1
5	China	12	19	Germany	2	33	Japan	1
6	Myanmar	12	20	Lao PDR	2	34	Korea	1
7	UK	11	21	Nepal	2	35	Luxembourg	1
8	Hong Kong	10	22	Turkey	2	36	Oman	1
9	Indonesia	10	23	Yugoslavia	2	37	Philippines	1
10	USA	10	24	Poland	2	38	Qatar	1
11	Malaysia	7	25	Afghanistan	1	39	South Georgia	1
12	Sri Lanka	4	26	Bangladesh	1	40	Vietnam	1
13	Nigeria	3	27	Botswana	1	41	Zambia	1
14	Tanzania	3	28	Brazil	1	42	Zimbabwe	1

Table 2. Ethics and authenticity at dyadic level (Cronbach's alpha: 0.972)

No	Question	Mean (N=191)	SD	RII*	ANOVA		Total Score (Max: 150)
					F	Sig.	
1	My leader is ethical	3.82	1.03	0.763	.523	.856	Overall
2	My leader is trustworthy and transparent	3.71	1.07	0.741	.531	.850	111
3	My leader acts in the best interests of my organization	3.97	1.02	0.795	1.395	.193	Singapore
4	My leader leads from heart and soul	3.67	1.12	0.734	.820	.598	109
5	My leader admits when mistakes are made by him/her and by the collective team	3.43	1.05	0.687	.866	.556	Pakistan
6	My leader makes personal sacrifices for the benefit of others (colleague etc.)	3.13	1.11	0.626	.970	.466	107
7	My leader behaves in a manner consistent with the organizational values	3.74	0.96	0.749	2.099	.032	India
8	My leader says exactly what he/she really means	3.60	1.07	0.720	.790	.626	114
9	My leader is fair in decision making	3.65	1.02	0.730	.965	.471	Australia
10	My leader inspires others by setting a good example in everything he does	3.45	1.11	0.689	.835	.585	110
11	My leader is optimistic and looks forward to positive outcomes of team effort	3.95	0.96	0.791	.616	.783	China
12	My leader follows a solid set of personal values and principles	3.68	1.09	0.736	1.857	.061	110
13	My leader has a good balance between his work/task and people/relationship orientations	3.60	1.11	0.719	.787	.628	Myanmar
14	My leader is consistent in his/her statements and actions	3.52	1.09	0.704	1.571	.127	114
15	My leader has a strong vision	3.87	1.06	0.775	.814	.604	UK
16	My leader makes efforts to train the subordinates as entrepreneurs	3.38	1.16	0.672	1.852	.062	116
17	My leader is futuristic and has a strategic orientation	3.65	1.05	0.731	1.014	.430	Hong Kong
18	My leader is progressive and likes positive changes	3.80	1.04	0.759	.346	.958	104
19	My leader is intellectually smart	4.03	0.95	0.805	1.158	.324	Indonesia
20	My leader acts as a genuine/authentic individual	3.77	0.90	0.755	.869	.554	115
21	My leader is highly self-disciplined	3.63	1.04	0.726	2.260	.020	USA
22	My leader has a good ability to understand different situations and contexts	3.88	0.96	0.777	.872	.551	119
23	My leader gives me freedom in my job	3.87	1.12	0.775	.864	.559	
24	My leader is creative and encourages innovative solutions to problems	3.83	1.03	0.765	.509	.867	
25	My leader has the ability to say "no" when necessary	3.90	1.03	0.773	.963	.473	
26	My leader makes the effort to establish strong and positive relationships	3.67	0.98	0.734	1.420	.182	
27	My leader helps me to develop my personal strengths	3.50	1.10	0.699	.439	.913	
28	My leader makes me feel that my contribution is important to the organization	3.69	1.11	0.738	1.093	.370	
29	My leader well deserves to be in the leadership position	3.76	1.17	0.752	1.063	.392	
30	My leader is a person I have complete confidence in, and I can count on him/her	3.64	1.16	0.729	.963	.472	

\*Relative Importance Index(RII) =  $\sum w/(A \times N)$ ; w is the rating given to each factor by the respondents, ranging from 1 to 5, A is the highest weight (i.e., 5 in the study) and N is the total number of samples.

Table 3. Ethics and authenticity at organizational level (Cronbach's alpha = .858)

No.	Question	Mean (N=191)	SD	Country	Experience of unethical acts in org.	Overall Score (Max: 45)
1	I get respect from my organizational leaders	3.94	0.79	Overall	2.99	33.52
2	I am developing as a competent professional in my organization	3.92	0.90	Singapore	3.04	32.27
3	I am proud to tell people about the organization I work for	3.86	0.94	Pakistan	2.97	33.92
4	I am confident of the future prospects of my organization	3.80	1.01	India	2.88	35.12
5	I am comfortable to give constructive feedback to my colleagues and bosses about the organizational environment	3.75	0.95	Australia	2.86	32.86
6	I am satisfied and happy working in my organization	3.74	1.03	China	3.00	34.58
7	The overall environment of my company encourages ethical and moral practices	3.74	1.00	Myanmar	3.25	33.64
8	My company's fundamental policy is to enhance value rather than making profit from the jobs carried out here	3.48	1.05	Hong Kong	3.90	31.30
9	My company is highly concerned about employees' welfare	3.30	1.11	UK	2.09	32.73
				Indonesia	3.20	35.30
				USA	2.90	34.80

The respondents rated some attributes of 'authentic project leaders' (Table 4). The high Cronbach's alpha (.96) shows that the taxonomy of leadership attributes is internally reliable. The results of ANOVA show that respondents generally agree in their ratings on attributes of authentic project leaders. The means and ranking show that the top-ranked attributes included awareness of client's objectives, ability to balance conflicting objectives (such as time, cost, quality), ability to integrate contributions of others on the project, ability to appreciate the role of other professionals, and awareness of context. These top-ranked attributes are on the managerial side of a leader's role. On the other hand, being visionary, being ethical and moral, leading by example, being transparent in actions, and self-discipline rank 15 or below among 25 attributes. This low ranking of these key attributes of effective and authentic leaders is unusual as these attributes rank high in most studies on leadership [59; 60; 61]. A possible explanation for this may be specific construction project dynamics and key considerations. Another possibility is that the paradigm of leadership in construction is still based on managerial functionalism, as noted by other authors [5]. Professionals continue to perceive leaders as those who have strong technical expertise.

#### 4. DISCUSSION AND CONCLUSION

Project management is a relatively new field and there is a continuing debate on whether it is a more of a practice or an

academic field [62; 63]. However, project management is the reality of the way in which many organizations operate today. It has recently been argued that project management alone is not sufficient [1, 8]; the human and relationship issues on construction projects and within organisations are also important. This study shows that there is much distrust of the top leadership in construction organizations in many countries. The organizations have also failed to institute people-oriented practices. Project managers are also rated low on some of the key attributes of leadership.

Although the tools of project management do help managers to plan, execute, and control projects efficiently, project management must move beyond the traditional aims of completing day-to-day tasks and attaining short-term targets. Project managers should become project leaders who are skilled in dealing with the people who use those tools. This calls for structured and systematic leadership development programmes for project managers. This could be part of educational syllabi as well requirements for continuing professional development of professional and accrediting agencies. Leaders at all levels in construction organizations should endeavour to regain the trust of their followers.

In-depth analysis of all the results of the full global survey will help the project and corporate leaders in construction to identify the gaps in their personal skills and organizational systems and procedures, and enhance their understanding of the project team members and the workers.

## REFERENCES

- [1] Smith, G.R., "Project leadership: why project management alone doesn't work", *Hospital Material Management Quarterly*, Vol. 21(1), pp. 88-92, 1999.
- [2] Fairholm, M. R., "Different perspectives on the practice of leadership", *Public Administration Review*, Vol. 64(5), pp. 577-590, 2004.
- [3] Zaleznik, A., "Managers and leaders: Are they different?" *Harvard Business Review*, Vol. 55(3), 67-78, 1977.
- [4] Bennis, W. G., and Nanus, B., *Leaders: The strategies for taking charge*, Harper and Row, New York, 1985.
- [5] Chan, P., "Leaders in UK construction: the importance of leadership as an emergent process", *Construction Information Quarterly*, Vol. 10(2), pp. 53 - 58, 2008.
- [6] Shenhar, A.J., "Strategic Project Leadership: Toward a strategic approach to project management", *R&D Management*, Vol. 34, pp. 569-578, 2004.
- [7] Brown, J.S., Eisenhardt, K.M., *Competing on the Edge - Strategy as Structured Chaos*, Harvard Business School Press, Boston, MA, 1998.
- [8] Briner, W., Hastings, C., and Geddes, M., *Project leadership*, 2nd ed., Aldershot, UK, 1996.
- [9] Thite, M., "Leadership styles in information technology projects", *International Journal of Project Management*, Vol. 18(2), 235-241, 2000.
- [10] Kaulio, M. A., "Project leadership in multi-project settings: Findings from a critical incident study", *International Journal of Project Management*, Vol. 26(4), pp. 338-347, 2008.
- [11] Gilbert, G. P., "The Project Environment", *International Journal of Project Management*, Vol. 1(2), pp. 83-87, 1983.
- [12] Slevin, D. P., Pinto, J.K., "Project leadership: Understanding and consciously choosing your style", *Project Management Journal*, Vol. 22(1), pp. 39-47, 1991.
- [13] Liu, A., Fellows, R., and Fang, Z., "The power paradigm of project leadership", *Construction Management & Economics*, Vol. 21(8), pp. 819-829, 2003.
- [14] den Otter, A.F.H.J. and Prins, M., "Architectural Design Management within the Digital Design Team", *Engineering, Construction and Architectural Management*, Vol. 9(3), pp. 162-173, 2003.
- [15] Briner, W, Geddes, M., Hastings, C., *Project Leadership*. New York: Van, Nostrand Reinhold, 1990.
- [16] Jessen, S.A., *The nature of project leadership*, Scandinavian University Press, Oslo, 1992.
- [17] Ireland, L.R., *Project Manager's Portable Handbook*. McGraw-Hill, New York, NY, 2004.
- [18] Thoms, P., Pinto, J.K., "Project Leadership: A Question of Timing", *Project Management Journal*, Vol. 30(1), pp. 19-26, 1999.
- [19] Heerkens, G., *Project Management*. McGraw-Hill, USA, 2001.
- [20] Kliem, R.L., *Leading High Performance Projects*, Boca Raton, FL : J. Ross Publishers, 2004.
- [21] Toor, S. R. and Ofori, G., "Taking leadership research into future: A review of empirical studies and new directions for research", *Engineering, Construction and Architectural Management*, Vol. 15(4), pp. 352-371, 2008.
- [22] Bresnen, M.J., "The leader orientation of construction site managers", *Construction Engineering and Management*, Vol. 112(3), pp. 370-86, 1986.
- [23] Bryman, A., Bresnen, M., Ford, J., Beardsworth, A. and Keil, T., "Leader orientation and organizational transience: an investigation using Fiedler's LPC scale", *Journal of Occupational Psychology*, Vol. 60(1), pp. 13-19, 1987.
- [24] Dulaimi, M. and Langford, D.A., "Job behaviour of construction project managers: Determinants and assessment", *Journal of Construction Engineering and Management*, Vol. 125(4), pp. 256-64, 1999.
- [25] Rowlinson, S., Ho, K.K. and Ph-Hung, Y., "Leadership style of construction managers in Hong Kong", *Construction Management and Economics*, Vol. 11(6), pp. 455-65, 1993.
- [26] Giritli, H. and Topcu-Oraz, G., "Leadership styles: some evidence from the Turkish construction industry", *Construction Management and Economics*, Vol. 22(3), pp. 253-62, 2004.
- [27] Chan, A.T. and Chan, E.H., "Impact of perceived leadership styles on work outcomes: case of building professionals", *Construction Engineering and Management*, Vol. 131(4), pp. 413-22, 2005.
- [28] Wong, J., Wong, P.N. and Li, H., "An investigation of leadership styles and relationship cultures of Chinese and expatriate managers in multinational construction companies in Hong Kong", *Construction Management and Economics*, Vol. 25(1), pp. 95-106, 2007.
- [29] Ofori, G., and Toor, S. R., "Research on cross-cultural leadership and management in construction: A review and directions for future research", *Construction Management*

and Economics, Vol. 27(2), pp. 119 – 133, 2009.

[30] Toor, S. R., and Ofori, G., “Leadership in the construction industry: Agenda for authentic leadership”, *International Journal of Project Management*, Vol. 26(6), pp. 620-630, 2008.

[31] Songer, A., Chinowsky, P., and Butler, C., “Leadership behaviour in construction executives:

Challenges for the next generation”, *Construction Information Quarterly*, Vol. 10(2), pp. 59-66, 2008.

[32] Toor, S. R and Ogunlana, S. O., “Ineffective leadership: Investigating negative attributes of project leaders and organizational neutralizers”, *Engineering, Construction and Architectural Management*, Vol. 16(3), 2009 (In Press).

[33] Toor, S.R. and Ofori, G., “Ethical leadership: Examining the relationships with Full Range Leadership Model, employee outcomes, and organizational culture” *Journal of Business Ethics*, DOI 10.1007/s10551-009-0059-3, 2009a.

[34] Toor, S.R. and Ofori, G., “Authenticity and its influence on psychological well-being and contingent self-esteem of leaders in Singapore construction sector”, *Construction Management and Economics*, Vol. 27(3), pp. 299-313, 2009b.

[35] McCaffer, R., “Editorial”, *Engineering Construction and Architectural Management*, Vol. 15(4), 2008.

[36] Cleland, D. I., “Leadership and the project management body-of-knowledge”, *International Journal of Project Management*, Vol. 13(2), pp. 83-84, 1995.

[37] Kloppenborg, T.J., Shriberg, A. Venkatraman, J., *Project Leadership*. Vienna, VA: Management Concepts, 2003.

[38] Norrie, J. and Walker Derek H.T., “A balanced scorecard approach to project management leadership”, *Journal of Project Management*, Vol. 35 (4), pp. 47-56, 2004.

[39] Strang, K.D., “Examining effective technology project leadership traits and behaviours:”, *Computers in Human Behavior*, Vol. 23, pp. 424-62, 2007.

[40] Makilouko, M., “Coping with multicultural projects: the leadership styles of Finnish project managers”, *International Journal of Project Management*, Vol. 22(5), pp. 387-96, 2004.

[41] Dainty, A., Cheng, M. and Moore, D., “A comparison of the behavioural competencies of client-focused and production-focused project managers in the construction sector”, *Project Management Journal*, Vol. 36(1), pp. 39-48, 2005.

[42] Egbu, C.O., “Skills, knowledge and competencies for managing construction refurbishment works”, *Construction Management and Economics*, Vol. 17(1), pp. 29 to 43, 1999.

[43] Odusami, K.T., “Perceptions of construction professionals concerning important skills of effective project leaders”, *Journal of Management in Engineering*, Vol. 18(2), pp. 61-67, 2002.

[44] Toor, S. R and Ogunlana, S. O., Successful project leadership: Understanding the personality traits and organizational factors. Proceedings of CIB-W107, International Symposium, Construction in Developing Economies: New Issues and Challenges, 18-20 January, 2006, Chile, Santiago, 2006.

[45] Lee-Kelley, L., Leong, K., “Turner’s five functions of project-based management and situational leadership in IT services projects”, *International Journal of Project Management*, Vol. 21(8), pp. 583 – 591, 2003.

[46] Fellows, R., Liu, A. and Fong, C.M., “Leadership style and power relations in quantity surveying in Hong Kong”, *Construction Management and Economics*, Vol. 21(8), pp. 809-818, 2003.

[47] Toor, S. R and Ogunlana, S. O., “Leadership skills and competencies for cross-cultural construction projects”, *International Journal of Human Resources Development and Management*, Vol. 8(3), pp. 192-215, 2008.

[48] Kangis, P. and Lee-Kelley, L., “Project leadership in clinical research organisations”, *International Journal of Project Management*, Vol. 18, pp. 393-401, 2000.

[49] Rosenbaum. B.L., “Leading today’s technical professional”, *Training and Development*, Vol. 45(10), pp. 55-66, 1991.

[50] Mustapha, F.H. and Naoum, S., “Factors influencing the effectiveness of construction site managers”, *International Journal of Project Management*, Vol. 16(1), pp. 1-8, 1998.

[51] Fraser, C., “The influence of personal characteristics on effectiveness of construction site managers”, *Construction Management and Economics*, Vol. 18(1), pp. 29-36 2000.

[52] Ogunlana, S.O., Siddiqui, Z., Yisa, S. and Olomolaiye, P., “Factors and procedures used in matching project managers to construction projects in Bangkok”, *International Journal of Project Management*, Vol. 20(5), pp. 385-400, 2002.

[53] Odusami, K.T., Iyagba, R.R. and Omirin, M.M., “The relationship between project leadership, team composition and construction project performance in Nigeria”,

International Journal of Project Management, Vol. 21(7), pp. 519-27, 2003.

[54] Barber, E. & Warn, JR., "Leadership in project management: from firefighter to fire lighter", Management Decisions, Vol. 43(7/8), pp. 1032 – 1039, 2005.

[55] Goldman, B.M. and Kernis, M., "The role of authenticity in healthy psychological functioning and subjective well-being", Annals of the American Psychotherapy Association, Vol. 5, pp. 18–20, 2002.

[56] Walumbwa, F.O., Avolio, B.J., Gardner, W.L., Wernsing, T. and Peterson, S.J., "Authentic leadership: development and validation of a theory-based measure", Journal of Management, Vol. 34(1), pp. 89–126, 2008.

[57] George, B., Authentic Leadership: Rediscovering the Secrets to Creating Lasting Value, Jossey-Bass, San Francisco, CA, 2003.

[58] McManus, J., Leadership: project and human capital management, Butterworth-Heinemann, 2006.

[59] Bass, B., Bass and Stogdill's handbook of leadership, 3rd Edition, Free Press, New York, 1990.

[60] Kouzes, J.M. and Posner, B.Z., The Leadership Challenge, 4th Edition, Jossey-Bass, 2007.

[61] Brown, M. E., Trevino, L.K., and Harrison, D., "Ethical leadership: A social learning perspective for construct development and testing", Organizational Behavior and Human Decision Processes, Vol. 97, pp. 117–134, 2005.

[62] Kwak, Y.H. and Anbari, F.T., Impact on Project Management of Allied Disciplines: Trends and Future of Project Management Practices and Research, Project Management Institute, Newtown Square, PA. ISBN: 9781933890456, 2008.

[63] Winter, M. and Smith, C., Rethinking Project Management, EPSRC Network 2004-2006, 2004.