THE IMPLEMENTATION OF SUSTAINABLE PRACTICES THROUGH LEADERSHIP IN CONSTRUCTION ORGANIZATIONS

Alex Opoku[1] and Chris Fortune

School of the Built Environment, University of Salford, Greater Manchester, M5 4WT, UK

Effective leadership is essential and key to the adoption of sustainability in every organization. The construction industry therefore needs leaders that can develop a culture that supports, promotes and rewards organisational strategy towards sustainability. Leaders should embed sustainability in their organizational activities and make sustainable development part of their overall business strategy. This research examines the role of organizational leadership in promoting sustainable practices in construction contractor organizations in the United Kingdom. The paper explores leadership roles, drivers and challenges facing leadership when integrating sustainability in their organizations. This issue is a strand of work within an ongoing PhD study on the topic, "Promoting sustainable practices in construction organizations through leadership". A preliminary qualitative study with seven (7) leaders in UK construction organizations, including sustainability directors, managers and consultants is presented. The analysis of the collected qualitative data revealed that, the leadership role in promoting sustainability in construction organizations include the development of strategies and the formulation of policies. A major driver for construction organizations to pursue sustainability is to win more contracts to stay in business. Surprisingly, increased capital cost or the perceived cost associated with sustainability is still a major challenge to the adoption of sustainability. Another major barrier according to the interview findings is lack of client demand for sustainability due to the wrong perception that sustainability costs more. Such results underline the need for and the potential benefits of committed leadership in the promotion of sustainable practices in construction organizations.

Keywords: construction organizations, leadership, sustainable practices.

INTRODUCTION

Leadership is vital in the construction industry and a key success factor in the drive towards sustainability (Ofori and Toor, 2008). Construction organizations need leadership that provide the collective vision, strategy and direction towards the common goal of a sustainable future. Leaders should embed sustainability in their organizational activities and make sustainable development part of their overall business strategy. It is important that such leaders have both the ability as well as the sustainability knowledge to effectively guide their organizations strategically towards sustainability. There is extensive literature on the subject of sustainability and leadership as separate entities; however, little has been written about the link between leadership and sustainability in construction management research. The issue of sustainability is growing ever more importantly and construction has perhaps the

[1] A.opoku@edu.salford.ac.uk

Opoku, A and Fortune, C (2011) The implementation of sustainable practices through leadership in construction organizations *In:* Egbu, C. and Lou, E.C.W. (Eds.) *Procs 27th Annual ARCOM Conference*, 5-7 September 2011, Bristol, UK, Association of Researchers in Construction Management, 1145-1154.

greatest impact on it than any other sector. The construction industry provides benefits to society as well as causing negative impacts; this makes it a key sector in the fight for sustainable development (Sev, 2009).

The construction industry is a very important sector in achieving society's sustainable development goals; however the change towards sustainability is a process that presents a leadership challenge. Both Egan (1998) and Latham (1994) called on leaders to lead the quest for change in the construction industry. Leaders have an important role in guiding construction organizations towards sustainable practices. The construction industry therefore needs authentic leaders (moral and ethical leaders) who can take advantage of the opportunities that sustainability brings, to secure a better future for the construction industry (Toor and Ofori, 2008).

The role of leadership and the promotion of sustainable construction practices in construction organizations in United Kingdom (UK) is critically examined in this paper. The first part of the paper reviews literature on sustainable development and construction, leadership, drivers and the challenges facing leaders in the effective implementation of sustainable construction practices. However, a brief and concise review is presented on sustainable construction due to space requirements for this paper. The paper concludes with the findings from preliminary interviews conducted with sustainability leaders in UK construction organizations.

SUSTAINABLE CONSTRUCTION

Sustainable development that balances social, environmental and economic objectives is now firmly on the agenda of the UK construction industry (Raynsford, 2000). Sustainable development balances environmental resource protection, social progress and economic growth and stability now and for the future. It focuses on improving the quality of life for all without increasing the use of natural resources further than the environment's ability to supply them for the foreseeable future. Sustainable development has been defined in many ways; Parkin (2000) pointed out that there are well over, 200 rumoured definitions of sustainable development in circulation, however, the most widely accepted definition is:

"Development that meets the needs of the present without compromising the ability of future generations to meet their own needs"- From 'Our common future' (The Brundtland Report, 1987)

However, Brandon and Lombardi (2011) in their book "Evaluating sustainable development in the built environment" define sustainable development as:

"A process that aims to provide a physical, social and psychological environment in which the behaviour of human beings is harmoniously adjusted to address the integration with, and dependency on nature in order to improve, and not to impact adversely, on present or future generation".

The quest for sustainability has put enormous pressure on the construction industry from the government and the general public to improve on its currently unsustainable pattern of project delivery (Adetunji *et al*., 2003). There is now a wide recognition that the construction industry has a vital contribution to make towards sustainable development. However, Leiper *et al*. (2003) comment that, the construction industry is slow in adopting sustainable approaches in its construction project practices. Sustainable construction is conceptualized as having three broad dimensions; social equity, environmental protection, and economic growth as a reflection of those issues in relation to sustainable development. Social sustainability deals with legal, moral

and ethical obligations of construction organizations to their stakeholders. Environmental sustainability on the other hand addresses the impact of construction activities on the environment by minimising waste, using natural resources and energy efficiently. Economic sustainability, however involves improved project delivery resulting in high productivity to maintain a high and stable level of economic growth (Parkin *et al*., 2003).

Some of the primary drivers towards the adoption of more sustainable business practices in construction organizations in the UK include: government policy or legislation, reputation and competitive advantage (Bennett and Crudgington, 2003; Holton *et al*., 2008). In a qualitative study by Williams and Dair (2007) involving five (5) case studies of completed developments in England, they identified a number of barriers to sustainable construction practices, including; lack of consideration of sustainability measures by stakeholders, sustainability not being required by clients, real and perceived costs and inadequate expertise.

LEADERSHIP

Leadership is believed to be an important factor in achieving business success in any organization. Despite the extensive research carried out on leadership, Giritli and Oraz (2004), in their survey of leadership styles of construction professionals in Turkey, argued that, leadership is one of the least-understood concepts in business. Jing and Avery (2008) added that, despite the prevalent appreciation of the importance and value of leadership, the concept of leadership still lacks lucidity and agreement in leadership literature. In a quantitative research involving sixty (60) questionnaires by Odusami *et al*. (2003), it was also pointed out in the survey results that not much work has been done on leadership in the construction industry.

Leadership has a very significant influence on organizational activities including sustainability, yet leadership has not been a focus of research in the field of sustainability. The study and the understanding of leadership and its relationship to sustainability is still in its early stages (Egri and Herman, 2000; Quinn and Dalton, 2009). Little or no research has been done linking leadership and sustainability in the construction industry in particular. Even though, the field of leadership is well researched, a study by Chan and Cooper (2007) through in-depth interviews with fifteen (15) leaders of the UK construction industry revealed that; the understanding of construction leadership is to some extent primitive, compared with the rather mature developments of mainstream leadership theories. The interest and the significance of organizational leadership is increasing rapidly as a result of the need for organisations to innovate continuously to meet the current changing business environment.

Despite the wealth of knowledge built around the concept of leadership, there is no single definition of leadership; however, a view of leadership according to Doh (2002) is that, it is an executive position in an organization and a process of influence. Leadership is also said to be concerned with the ability of an individual to influence the behaviour of others in order to deal with the desires of the leader (Fellows *et al*., 2003). Ferdig (2007) describe leaders as those who inspire a shared vision, build consensus, provide direction, and foster changes in beliefs and actions among followers needed to achieve the goals of an organization. Northouse (2010) however define leadership as:

"A process whereby an individual influences a group of individuals to achieve a common goal".

Leaders are essential at all levels (Munshi *et al*., 2005) and can emerge at different levels of an organisation (Newton, 2009). Ferdig (2007) add that, sustainability leadership is extended to anyone who seeks sustainable change regardless of the role or position, and such leaders can connect with others using different assumptions about how people work together to create meaningful change. From the definition of leadership above, anyone in an organisation could potentially be a leader at some point in time if they are involved in a process of influence that involves encouraging sustainable practices (Taylor, 2008). The construction industry in general and the UK construction industry in particular, is in an era of a difficult socio-economic, cultural, political, and business environment. There is an urgent need to promote a positive culture in the construction industry and the industry requires leaders with positive values and good levels of moral and ethical behaviour to change the existing conservative paradigm of management in the industry (Toor and Ofori, 2006).

LEADERSHIP FOR SUSTAINABLE CONSTRUCTION

Sustainability requires organizational leadership to take bold steps to move beyond efficiency, compliance or just being green, to a higher level of performance. Sustainability is now viewed by organizations as being part of a strategy for long-term business survival and success (McCann and Holt, 2010). Leaders should embed sustainability in their organizational activities and make sustainable development part of their overall business strategy (Ofori and Toor, 2008). Parkin (2010) emphasises the link between leadership and sustainable practices when she asserts,

"Leadership is a vital ingredient for achieving sustainability. Without it sustainability will never make it in government, business or anywhere" (Parkin, 2010*).*

Organizations are now required to fundamentally change the way they operate from focussing on the short-term maximization of shareholders value to paying attention to the economic, social and environmental effects of their operations (Quinn and Baltes, 2007). The construction industry is therefore one of the key sectors required to lead the drive due to the significant negative impacts construction activities can cause. It is believed that any effective change process requires committed leadership. Leaders have a significant role to play in the construction industry as the industry undertakes its critical role in the efforts to attain sustainable development (Ofori and Toor, 2008). It is suspected that the ability of organisation, irrespective of their level of maturity, to pursue the sustainable agenda is influenced by the commitment and conviction of their leadership approach towards sustainability. Leaders should communicate the importance of sustainability and establish a culture of integrating sustainability into day-to-day management decisions (Avery, 2005).

In addition, Ofori and Toor (2008) believe that leadership is the key factor of success in the drive towards sustainability. They argue that, the solution lies in leadership that is self-aware, committed and able to earn the support, and direct the actions, of all stakeholders towards the pursuit of a common project related goal of sustainability. This was the result from a study involving interviews with 32 prominent leaders in the Singapore construction industry.

However, Doppelt (2003) asserted that, organizations are not fully embracing sustainability because most organizational leaders do not fully understand the issues and do not know how to develop the strategies required for the adoption of more

sustainable practices. Even though Redekop (2007) comment that, the characteristics of a sustainability leader have not been systematically researched, Middlebrooks *et al*. (2009), have identified the characteristics of sustainability leadership as: the ability to see organizational culture through the informed lens of the triple bottom line of sustainability; knowledge and understanding of the different balances and interconnections between the triple bottom line in the pursuit of sustainable ends; a desire to make a positive difference in the long-term; the ability to influence others in a socially just manner; and the ability to manage behavioural and systems change. Success with sustainability requires clear leadership at the organisational level to identify, understand and efficiently manage ground-breaking solutions which address the critical social, environmental, and economic challenges faced by the world today.

When implementing a business strategy that commercially incorporates sustainability, leaders must be able to understand the motivation of different stakeholders, engage and partner with managers to weave sustainability into the fabric of the organization. Leaders must also possess the ability to understand and overcome the challenges or barriers to adopting sustainability (Lueneburger and Goleman, 2010). Sustainability leaders should not just give directions but should also develop and implement actions in collaboration with others, adapting to unforeseen changes in the environment overtime through modification as and when needed (Ferdig, 2007).

In concluding the discussion on sustainability and leadership above, it clear that organizational leadership has a key role in the pursuit of sustainable development. Whiles there are a number of essential factors driving leadership to the adoption of sustainable practices, there are equally a number of challenges facing leadership in the effective implementation of sustainable practices in construction organizations. This notion is examined through in-depth interviews presented in the next section.

RESEARCH APPROACH

The study adopts a qualitative research approach using an in-depth semi-structured interview with sustainability leaders in construction organizations. Fellow and Liu (2003) argue that, interviews are useful to obtain detailed information about personal feelings, perceptions and opinions. A semi-structured interview involves the implementation of a number of predetermined questions; interviewees are asked open-ended questions in a systematic and consistent order (Berg, 2001; Fellow and Liu, 2003). The interviewer prepares some questions or a frame for the interview and is also free to probe when necessary. Burns (2000) adds that, semi-structured interview allow greater flexibility than the closed-ended type and permits a more valid response from the participant's perception of reality. Naoum (2002) indicates that this approach is best used when the research problem to be investigated is at its preliminary stage.

To examine how leaders in UK construction organizations are promoting sustainable construction practices, in-depth semi- structured interviews were carried out with seven (7) sustainability leaders from construction contractor organizations in UK. Formal letters were sent to such leaders as an invitation to participate in the study. These were then followed with telephone calls and a total of seven (7) leaders agreed to take part and the profile of the interviewees is presented in Table 1 below. The interviews lasted 30-40 minutes. It was also important to contact leaders from construction organizations currently pursuing sustainable construction practices. The analysis of data collected yielded some preliminary findings related to the factors affecting the implementation of sustainable practices in construction organizations. Questions asked during the interviews addressed issues such as: what drives

construction organizations to pursue sustainable practices; the role of leader in promoting sustainable construction practices and factors affecting leaders in the effective implementation of sustainable practices in construction organizations.

Interviewee	Job Title	Type of Construction organization
A	Senior Sustainability Manager	Contractor organization
B	Environmental Manager	Contractor organization
C	Head of Sustainable Development	Contractor organization
D	Sustainability Manager	Contractor organization
E	Director of Environment	Contractor organization
F	Principal sustainability Consultant	Contractor organization
G	Environmental Manager/Advisor	Contractor organization

Table 1: Profile of Seven UK Sustainability Leaders Interviewed

FINDINGS AND DISCUSSION

This section presents a discussion of the findings extracted from the analysis of the interviews. A summary is presented in figure 1 below. With most of the companies interviewed, the focus on sustainability started with a clear desire to introduce sustainability on the part of the organisation's leadership.

Leadership Role

It was found that sustainability takes place in an organization better when there is an active leader within the company to champion the sustainability approach. Sustainability leaders have a role in helping to promote sustainable construction practices by providing training and awareness courses to staff on sustainability; driving forward the sustainability agenda; formulating policies, implementing procedure and disseminating best practice; work with clients on sustainability issues etc. Interviewee ‘B’ highlighted his roles by saying that:

“As environmental manager I have a key role in driving the sustainability agenda within the organization. This includes formulating policy, implementing procedures, and disseminating best practice”.

Several of the interviewees pointed out that the training of employees on sustainable issues is also part of their role. For instance interviewee ‘A’ said:

"I provide training and awareness course as well as a help line for assistance to the rest of the company on sustainability issues"

However, interviewee "G" added that:

"My role as an Environmental Manager is to seek sustainable good practice ideas and provide staff training".

Drivers and Benefits

Sustainability leaders were asked about what drives their organizations to pursue sustainable practices and the results are presented below. Some of the drivers include: client requirement; win more work to stay in business; improving corporate social responsibility; moral issues; reputation as a green company; competitive advantage; to attract and retain the right staff; legislation; be more efficient and drive out waste etc. For example interviewee ‘B’ responded by saying:

“There is a good business case to ensure we are sustainable. Our clients now insist we complete sustainability pre-qualification questionnaires. Also it generally saves us money. There is also the moral issue of making sure we do business the right way”.

However, interviewee "E" said that:

"Sustainability is good for business, the client and the environment. Another sustainability driver is to attract and retain good graduates into the company".

Furthermore, many of the interviewees pointed out that, having a green reputation will help their organisations to win more business in periods of economic recession, interviewee 'C' noted:

"What drives this company to pursue sustainability is to be a leader in the built environment, gain competitive advantage and be more efficient".

Challenges and Barriers

Sustainability leaders face many challenges in attempting to persuade their organisations to adopt sustainable construction practices. When leaders were asked about factors affecting them in the effective implementation of sustainable construction practices in their organization, a number of issues were raised. One of such major challenge to organizational leadership is time and financial constraints.

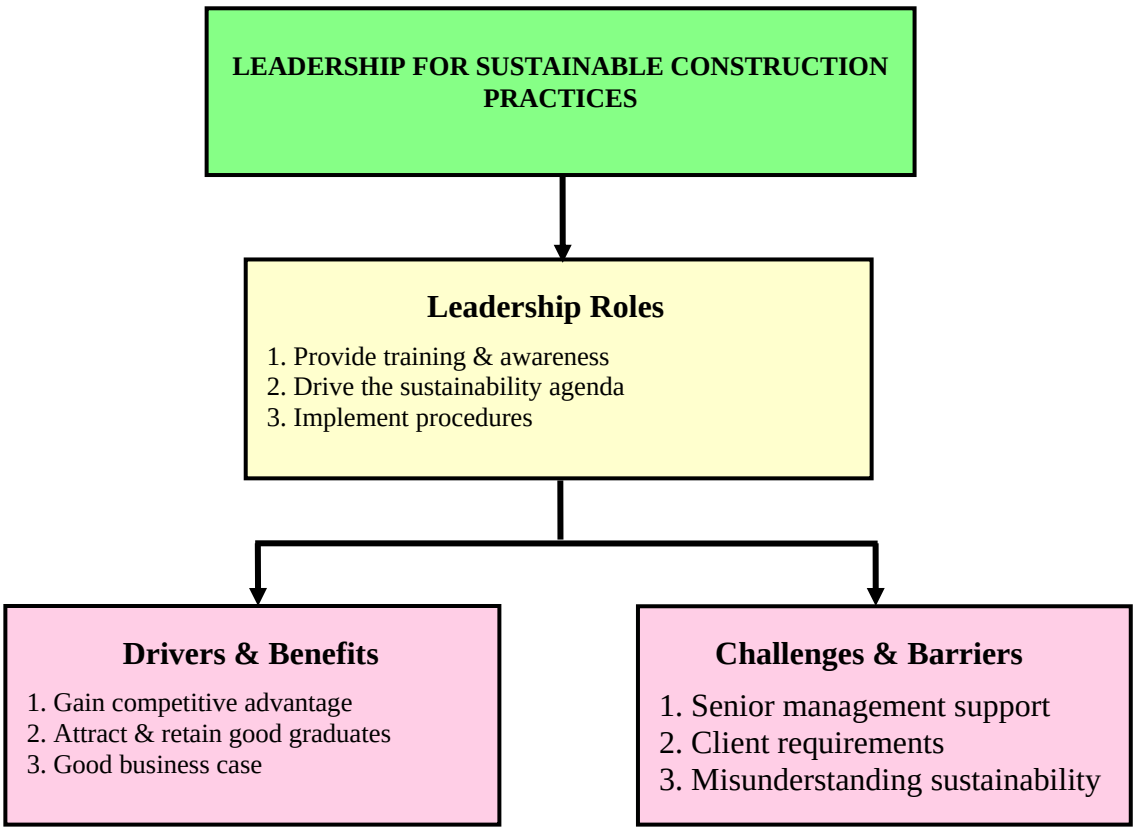

Fig. 1 Summary of Interview Findings

Following the analysis of the collected qualitative data, the following factors were identified as other challenges: contract requirement; support from senior management; requirements from clients; misleading of what sustainability really means; legislation and regulation; company size; increased capital cost or perception that sustainability cost more etc.

In his view interviewee 'F' reflected that:

"An issue or a confusion on environmental and sustainability; some people focus on environmental instead of sustainability issues. There is still a misunderstanding of what sustainability really means".

Furthermore, a company Director of Environment; interviewee 'E' added that:

"Middle management staffs such as project managers see sustainability as an add-on, and should be made to understand that sustainability should be part of the project management process".

Senior management of company boards have other high priorities and sustainability is at the bottom of most company boards' priority list. A sustainability manager; interviewee 'D' explained that:

"Support from senior management, requirements from clients and legal requirements on projects, position in the marketplace are some of challenges I face".

CONCLUSIONS

The desire of construction organizations to pursue sustainability is driven by a number of factors; however gaining competitive advantage is a key driver for UK construction contractor organizations to adopt sustainable construction practices. On the other hand, there are number of factors affecting the effective implementation of sustainable construction practices such as: understanding what sustainability really means; support from senior management and client requirements. In addition, increased capital cost or perceptions that sustainability costs more is still a major challenge. The pursuit of sustainable construction practices is both a challenge and an opportunity. It is therefore important that construction organizational leaders turn such challenges into opportunities. Sustainability leaders have a role in helping to promote sustainable construction by training staff on sustainability issues; producing guidance notes and policies; ensuring that sustainability is embedded in the business; as well as seeking sustainable good practices. This therefore establishes the need to further investigate the role of leadership in promoting sustainable construction in the on-going PhD research study.

REFERENCES

Adetunji, I., Price, A., Fleming, P. and Kemp, P. (2003), "Sustainability and the UK construction industry: a Review", *Proceedings of the Institute of Civil Engineers, Engineering Sustainability*, **156**(ES4), 185-99.

Avery, G. (2005), *Leadership for sustainable futures: Achieving success in a competitive world*, Edward Elgar Publishing, Cheltenham, UK.

Bennett, J. and Crudgington, A. (2003), "Sustainable development: recent thinking and practice in the UK", *Proceedings of the Institution of Civil Engineers, Engineering Sustainability*, **156**, 27–32.

Berg, B. L. (2007), *Qualitative Research Methods for the Social Sciences*, 6th Ed, Pearson Education, San Francisco, CA, USA.

Brandon, P. S. and Lombardi, P. (2011), *Evaluating Sustainable Development in the Built Environment*, 2nd edition, Wiley-Blackwell, Oxford, UK.

Brundtland, G. H. (1987), Our Common Future: Report of the world Commission in Environment and Development, Oxford University Press, Oxford, UK.

Burns, R.B. (2000), *Introduction to Research Methods*, 4th edition, Sage, London, UK.

Chan, P. W. C. and Cooper, R. (2007), "What makes a leader in construction? An analysis of leaders in the UK construction industry", *Proceedings of the CIB World building conference: construction for development*, 14-18 May, 2007.

Doh, J. (2002), £Can leadership be taught? Perspectives from management educators£, *Academy of Management Learning and Education*, **2**(1), 54-67.

Doppelt, B. (2003), *Leading Change toward Sustainability: A Change-management Guide for Business, Government and Civil Society*, Greenleaf Publishing, Sheffield, UK.

Egan, J. (1998) *Rethinking construction: the report of the Construction Task Force to the Deputy Prime Minister, John Prescott, on the scope for improving the quality and efficiency of UK construction*, Department of the Environment, Transport and the Regions Construction Task Force, London, UK.

Egri, C. and Herman, S. (2000), "Leadership in the North American environmental sector: values, leadership styles, and contexts of environmental leaders and their organizations", *Academy of Management Journal*, **43**(4), 571-604.

Fellows, R., Liu, A. and Fong, C.M. (2003), "Leadership style and power relations in quantity surveying in Hong Kong", *Construction Management and Economics*,**21**(8), 809-818.

Ferdig, M. (2007), "Sustainability Leadership: Co-creating a Sustainable Future", *Journal of Change Management*, **7**(2), 25-35.

Fellows, R. and Liu, A. (2003), *Research Methods for construction students*, 2nd edition, Blackwell publishing, Oxford, UK.

Giritli, H. and Oraz, G. T. (2004), "Leadership styles: some evidence from the Turkish construction industry", *Construction Management and Economics*, **22**(3), 253-262.

Holton, I., Glass, J. and Price, A. (2008), "Developing a Successful Sector Sustainability Strategy: Six Lessons from the UK Construction Products Industry", *Corporate Social Responsibility and Environmental Management*, **15**, 29-42.

Jing, F. F. and Avery, G. C. (2008), "Missing Links in Understanding the Relationship between Leadership and Organizational Performance", *International Business and Economics Research Journal*, **7**(5), 67-78.

Latham, M. (1994) *Constructing the team: final report of the government/industry review of procurement and contractual arrangements in the UK construction industry*, HMSO, London, UK.

Leiper, Q., Fagan, N., Engstrom, S. and Fenn, G. (2003), "A strategy for sustainability", *Proceedings of the Institution of Civil Engineers, Engineering Sustainability*, **156**(ES1), 59-66.

Lueneburger, C. and Goleman, D. (2010), "The Change leadership sustainability Demands", *MIT Sloan Management Review*, **51**(4), 48-55.

McCann, J. T. and Holt, R. A. (2010), "Defining sustainable leadership", *International Journal of Sustainable Strategic Management*, **2**(2), 204-210.

Middlebrooks, A., Miltenberger, L., Tweedy, J., Newman, G. and Follman, J. (2009), "Developing a sustainability ethic in leaders", *Journal of Leadership studies*, **3**(2), 31-43.

Munshi, N., Oke, A., Stafylarakis, M., Puranam, P., Towells, S., Möslein, K. and Neely, A. (2005), *Leading for innovation: AIM Executive briefings*, Advanced Institute of Management Research (AIM), London, UK.

Naoum, S. G. (2002), *Dissertation Research and Writing for construction students*, Butterworth Heinemann, Oxford, UK.

Newton, S. (2009), "New directions in leadership", *Construction Innovation*, **9**(2), 129-132.

Northouse, P. G. (2010), *Leadership: Theory and practice*, 5th edition, SAGE Publications Ltd, London, UK.

Odusami, K. T., Ivagba, R. R. O. and Omirin, M. M. (2003), "The relationship between project leadership, team composition and construction project performance in Nigeria", *International journal of project management*, **21**(7), 519-527.

Ofori, G. and Toor, S. R. (2008), "Leadership: a pivotal factor for sustainable development", *Construction Information Quarterly*, **10**(2), 67-72.

Parkin, S. (2000), "Context and drivers for operationalizing sustainable development", *Proceedings of Institution of Civil Engineers*,**138**, 9-15.

Parkin, S., Sommer, F. and Uren, S. (2003), "Sustainable development: understanding the concept and practical challenge", *Proceedings of the Institution of Civil Engineers, Engineering Sustainability*, **156**(1), 19-26.

Parkin, S. (2010), *The Positive Deviant: Sustainability Leadership in a Perverse World*, Earthscan, London, UK.

Quinn, L. and Baltes, J. (2007), *Leadership and the triple bottom line: bringing sustainability and corporate social responsibility to life*, Centre for creative, North Carolina, USA.

Quinn, L. and Dalton, M. (2009), "Leading for sustainability: Implementing the task of leadership", *Corporate Governance*, **9**(1), 21-38.

Raynsford, N. (2000), "Sustainable construction: the Government's role", *Proceedings of the Institution of Civil Engineers, Civil Engineering*, **138**, 16-22.

Redekop, B. (2007), "Leading into a sustainable future: The current challenge", in Huber, N. and Harvey, M. (Eds.), *Building leadership bridges-leadership: Impact, culture, and sustainability*, International Leadership Association, College Park, MD, USA.

Sev, A. (2009), "How can the construction industry contribute to sustainable Development? A conceptual framework", *Sustainable Development*, **17**, 161-173.

Taylor, A. (2008), "Promoting sustainable practices: The importance of building leadership capacity", *Proceedings of the Enviro 08 Conference*, 5 - 7 May, Melbourne, Victoria, Australia.

Toor, S. R. and Ofori, G. (2008), "Leadership for future construction industry: Agenda for authentic leadership", *International Journal of Project Management*, **26**, 620-630.

Toor, S. R. and Ofori, G. (2006), "An antecedental model of leadership development", in *Proceedings of joint international symposium of CIB working commissions W55/W65/W86*, October, Rome, Italy.

Williams, K. and Dair, C. (2007), "What Is Stopping Sustainable Building in England? Barriers Experienced by Stakeholders in Delivering Sustainable Developments", *Sustainable Development*, **15**, 135-147.