

Good corporate citizenship in the Australian construction industry

Sonja Petrovic-Lazarevic

Sonja Petrovic-Lazarevic is Associate Professor at Monash University, Caulfield East, Australia.

Abstract

Purpose – This paper aims to explore the relevance of the application of an environmental management system in creating the image of a good corporate citizen in the Australian construction industry.

Design/methodology/approach – The author applied a research method based on data collected from annual reports, corporations' websites and publicly available statistics; and interviews conducted with stakeholders of the leading Australian construction industry corporations.

Findings – The environmental management system has a part in creating the image of a good corporate citizen. Majority of the companies pursues the corporate governance structure that is concerned about healthy environment. None of the companies includes both suppliers and community representatives in the board of directors. There is a different interpretation as to what healthy working environment comprises, and how to sustain a healthy environment of the present without compromising the ability of future generations to meet their needs. The implementation of the occupational, health and safety regulations varies from state to state in Australia.

Practical implications – All companies should pursue the governance structure that ensures the social values of the organization are aligned with those of the community; overall unique stakeholders' understanding of a healthy working environment should support sustainability; equal implementation of occupational, health and safety regulations for each state in Australia could contribute overcoming for much-needed occupational, health and safety improvement.

Originality/value – The originality of the paper is in applying the framework for examining the environmental management system pertinence to the image of defined good corporate citizen. The paper is useful to construction industry practitioners, academics, and government.

Keywords Corporate governance, Organizational culture, Social responsibility, Construction industry, Australia

Paper type Research paper

1. Introduction

Being recently targeted by the environmentalists and governments, construction industry companies are under pressure not only to provide an effective and efficient building and constructing service, but also effective management of their business (Levis, 2006; Teo and Loosemore, 2003; Price and Newson, 2003). To achieve effective management practice companies must focus on factors as diverse as finance and environment both internally and externally (Yadong, 2007; Petrovic-Lazarevic, 2006; Szamosi and Tsolakis, 2003). In more recent times their competitive success has become more dependent on the external image of (good) corporate citizen. This image often reflects the company's environmental responsiveness (awareness of environmental and ethical issues, and contribution to the well-being of the community (Ghazali, 2007; Levis, 2006).

A significant number of organizations have implemented international environmental management standard (EMS) ISO 14000 (Zobel, 2007) to improve their environmental performance (Lundan, 2004). Christini *et al.* (2004) define EMS as a tool that enables organisations to control their activities, products or services on the environment; while

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Gunningham *et al.* (2003, p. 56) identify it with formalized procedure “for making and implementing corporate environmental policies, auditing results, and responding to shortcomings”. EMS increases credibility and communication with stakeholders such as government agencies, community groups and investors (Pokinsak *et al.*, 2003); improves competitiveness and quality (Bansal and Roth, 2000; Florida and Davison, 2001; Melnyuk *et al.*, 2003); and improves the company’s business reputation (Strachan *et al.*, 2003).

A good corporate citizen is often understood as an organization with the following characteristics:

- Does “the right thing” from the point of view of company’s moral obligation and ethical performance (Svensson and Wood, 2007; McWilliams *et al.*, 2006).
- Contributes to sustainability (Porter and Kramer, 2006).
- Comprises good relationships with suppliers and commitment to local community protection and engagement.
- Includes good relationship with employees and unions (Yadong, 2007).

There are also opinions that a good corporate citizen is influenced by a corporate culture (Pederson, 2007; Snider *et al.*, 2003; Ghazali, 2007; Yadong, 2007, Levis, 2006). Indeed, since corporate culture is defined as the combined values, beliefs and norms of organizational members (Petrovic-Lazarevic, 2005) it is plausible to assume it will influence a company’s moral obligation to do “the right thing”. In this respect, Levis (2006) states that reputation both of a company conduct and its leaders as intangible company’s assets is most important risk that companies face today. If lost, it goes through losing support from its shareholders. Ghazali (2007) argues that being a good corporate citizen includes good corporate governance, or a process and structure in which companies are directed and controlled to achieve long-term shareholders’ goals with respect to the interest of other stakeholders (Yadong, 2007; King, 2006; Abor and Biekpe, 2007; Lipman and Lipman, 2006; Myers, 2003). Although good corporate governance supports socially responsible business, it does not necessarily indicate best practice, or the benefits to cost for implementation (Lipman and Lipman, 2006). That is, corporate governance may be costly, ending in a company’s reluctance to recognize its social, economic and environmental responsibilities (Pederson, 2007).

Characteristics of good corporate citizenship include, firstly a company’s vision or mission, reflecting the organization’s propensity to do “the right thing” (Hill and Jones, 2007).

The second characteristic is that of a company’s sustainability. This concept has been defined in numerous ways to represent contemporary businesses’ social and environmental challenges (Voinov and Fareloy, 2007), but defined here as a process of meeting the needs of the present without compromising the ability of future generations to meet their own needs (Porter and Kramer, 2006). The third characteristic of good corporate citizenship is that of good relationships with employees, customers, suppliers and local community fostered by the inclusive application of EMS to both internal and external environments. The final characteristic of a good corporate citizen embodies a good relationship with employees and unions reflecting the participatory roles provided by occupational health and safety standards.

The recent pressure that the Australian Construction industry corporations face to have the image of a good corporate citizen and to care for its environmental has not yet been fully reflected in the literature. Apart of the study related to the corporate social responsibility (Petrovic-Lazarevic, 2008), it seems the research project findings presented in this paper are the first of this kind.

In this paper, the literature overview examines the relevance of EMS application to the image of good corporate citizen, extending from recent research conducted in Australia in large construction companies (Petrovic-Lazarevic, 2006). In the research methodology, we introduce a framework to examine EMS application. The discussion consists of four parts. Firstly, we examine what a sample of construction industry organizations state in their vision

in terms of their moral obligation to do “the right thing”. Secondly, we examine each company’s governance structure, specifically asking how this supports their moral obligation.

Thirdly, we examine sustainability by looking at what is understood by a healthy working environment in organizations, and whether the use of an EMS supports this understanding. Finally, we examine the application of EMS and occupational, health and safety measures with an emphasis to the organizational commitment to the local community and relationships with employees and unions.

We conclude the paper with suggestions for EMS implementation to influence the image of a good corporate citizen; and future research directions. The findings of this paper will be useful to construction industry practitioners, academics, and government.

2. Literature review

2.1 Organizational vision

The literature suggests that a snap shot of corporate culture can be found in organizational vision statements (Collins and Porras, 1996). The literature also suggests it is important for firms to be socially accepted in order to achieve best practice (Ghazali, 2007). This comprises companies’ obligations to the societies in which they operate. The obligations are a reflection of their corporate social responsibility (Yadong, 2007).

Depending on the society in which they operate, companies should give an account of only those activities that have an impact on their society (Cradden, 2005). The activities, therefore, should be presented as providers of beneficial effects on the community and its stakeholders.

Today companies demonstrate their social responsibility to their stakeholders through the organizational vision or mission statement expressed by commitment to pursue healthy environmental practices. The commitment includes corporate social responsibility managerial practices or characteristics about safety and well-being of employees, contractors and community; active support of local community; and responsiveness to preserve healthy environment (McWilliams *et al.*, 2006). The demonstration of this commitment depends on a company’s governance culture, as being created and influenced by top management (Yadong, 2007; Levis, 2006). For example, in annual reports “companies tend to disclose only favorable aspects of their social and environmental activities” (Ghazali, 2007, p. 255), while large companies are also more inclined to report both their financial and, social and environmental performance (Yadong, 2007).

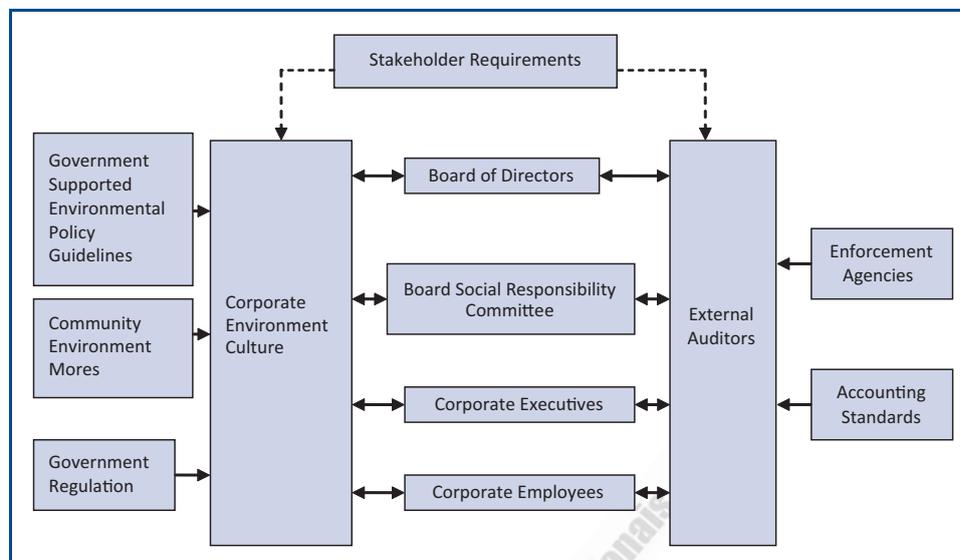
2.2 Corporate governance structure

The notion of corporate governance structure is important as it enhances the existing corporate value of good corporate citizen (Ghazali, 2007; Pederson, 2007; Yadong, 2007; King, 2006; Abor and Biekpe, 2007; Lipman and Lipman, 2006; Myers, 2003).

In Australia, corporate structure based on Anglo-Saxon system of governance practice, appears either in a form of an old structure or a new structure. An asymmetric business information flow from the corporation’s business units to the board of directors characterizes the old structure (Petrovic-Lazarevic, 2008). The chief executives as board chairpersons can provide information distortion that has already received attention from legislators, regulators and the public (Yadong, 2007). Thus, the structure does not necessarily support company’s moral obligations to do the “right thing”.

The new corporate governance comprises working environmental concerns by offering the enhanced structure (see Figure 1) (Petrovic-Lazarevic, 2006). A Board Social Responsibility Committee is a new body in the corporate structure. It overviews the role of corporate governance and, consequently, ensures that the social values of the organization are aligned with those of the community.

Figure 1 Enhanced corporate governance structure



Being aware that the image of an organization responsive to socially affected and related activities in the external environment is of relevance to the corporation's competitive advantage (Porter and Kramer, 2006), the Board Social Responsibility Committee should endeavor to overcome regional differences in organizational values in different cultural environments. Further, the new model of the corporate governance structure should develop an information flow to and from the corporate environmental culture. Three major outside corporation sources: government supported environmental policy guidelines; government regulation, and community mores related to the environment, influence the corporate environmental culture. The Board Social Responsibility Committee governance structure is thus enhanced due to the range of stakeholder inputs (within and outside the organization), in formulating recommendations to the board on matters of corporate environmental policy.

2.3 Definition of a healthy working environment

There are many definitions of a healthy working environment in contemporary literature. The definitions differ. For example, the healthy working environment is explained as an organizational atmosphere that provides both the employee health and organizational effectiveness (Shirey, 2006). As such, it reflects the organizational commitment to well-being of its workers, an corporate culture that values its employees and management practices of rewarding quality work and pursuing strong leadership (Sauter *et al.*, 1996). Further, the healthy working environment means "engaging employees in the work environment to promote positive behaviors" (Shirey, 2006, p. 256). But the healthy working environment also means physical and social environment's effects that have a positive impact on human health (Srinivasan *et al.*, 2003; Heath *et al.*, 2004).

For the purpose of this study, we have adopted the following definition: the healthy working environment is "mental and physical occupational, health and safety and, working environments that focus on developing an environment to encourage a positive and effective workforce" (Health Workforce Advisory Committee, 2006, p. 14). Further, we suggest that factors influencing healthy working environment of an organization are internal and external. Internal factors cover working conditions for employees (King, 2006), relationships with employees and unions (Yadong, 2007) and occupational, health and safety measures (Petrovic-Lazarevic, 2005). The external factors relate to the organizational commitments to establishing and maintaining safe working conditions and preventing pollution of the external environment (Pederson, 2007; Benn and Duphy, 2007). The factors comprise good

business relationships with suppliers, protection and engagement with local community (Yadong, 2007), and organizational commitment to sustainability (Porter and Kramer, 2006).

2.4 Application of EMS and occupational, health and safety measures

Australian standards AS/NZS 4804:2001, occupational, health and safety management systems and AS/NZS/ISO 14001:2004 EMS, are closely related; both are government endorsed standards designed to guide organizations in establishing healthy working environments, and subsequently providing a framework for the application of metrics to measures, evaluate and improve performance. Pederson (2007) notes that the reasons for planning and implementing an EMS as a voluntary standard are many sided, extending from competitiveness (Bansal and Roth, 2000; Florida and Davison, 2001), quality improvement (Melnjuk *et al.*, 2003) and business reputation (Strachan *et al.*, 2003), to improving relations with stakeholders (Pokinsak *et al.*, 2003). In recent times there have also been calls for improved safety management in the construction industry both in Australia (NOHSC news, 2004; Cole, 2003; Larsson and Field, 2002; Lingard, 2002; Bajaj, 2001; Lin and Mills, 2001) and internationally (Wamuziri, 2007; Dainty *et al.*, 2001; Kines, 2002; Atkinson, 1998).

Specifically the Australian Royal Commission into the Building and Construction Industry notes that there has been steady improvement in safety outcomes in the Australian building and construction industry, which is consistent with trends across all industry (Durham, 2002). However, the final report revealed that the incidence of injury is still 50 percent higher than the rate of all the industries combined (Cole, 2003). It is interesting to note that within the Australian building and construction industry, non-building construction (which includes road and bridge construction) has an incidence rate some 60 percent higher than the overall construction average. Even in well-developed nations like the USA, the construction industry has been recognized historically as having higher rates of fatalities, injuries, and illnesses than other industries (Dong *et al.*, 2004). These injuries are attributed to the failure to properly identify hazards and control risks during the design process (Trethewey *et al.*, 2003).

Studies suggest that industries where sub-contracting is common have high incidence of serious injuries and fatalities. This may be caused by sub-contractors neglect to implement costly occupational, health and safety measures in order to outperform competitors (US Bureau of Labor Statistics, 1995; Mayhew *et al.*, 1997). According to the literature, although occupational, health and safety measures prevent injuries (Lingard and Yesilyurt, 2003), still the most of the fatalities occur as a cause of human error (Rasmussen, 1987). Therefore, as Lingard and Yesilyurt (2003) suggest, it seems relevant to establish occupational, health and safety measures with more focus on human factors.

3. Research methodology

The literature above has identified key elements of good corporate citizenship. To help explore the relevance of these factors to organizations in the Australian construction industry we have adopted a modified qualitative case based method similar to that of Zobel (2007) in which secondary information was firstly sought from annual reports, corporations' websites; and publicly available statistics. Primary data collection was then undertaken in leading Australian construction industry corporations, via interviews conducted with members of boards of directors, suppliers, employees, customers, and community representatives. In addition, to evaluate health and safety performance, separate interviews with project managers, union representatives and employees from large projects of \$50 million and over were conducted. The reason to choose large projects was based on literature review suggesting that large projects are inherently dangerous, with fatal falls as a major hazard (Larsson and Field, 2002; Kines, 2002).

Since the notion of good corporate citizen is relevant to large organizations (Ghazali, 2007), which Lin and Mills (2001) define as firms with over 20 employees, the total membership of the Australian construction industry Association, in this case 17 large corporations (ACA

Mission, 2007), was used. Although there are other large construction industry organizations in Australia, the decision to use this sample was based on the following reasons: first, the Association is consulted by the Australian Government when introducing industry regulations, thus being relevant to sustainability; second, easy access to data; and third, willingness of organisations' representatives to participate in the research project conducted. The companies account for 42 percent of construction industry revenue (see Table I).

We conducted 85 interviews with the representatives of the board of directors, customers, employees, suppliers and community representatives, with all of them being part of the corporate governance process (Davies, 2006; McWilliams *et al.*, 2006; Clarkson, 1995). The interviews were based on a semi-structured questionnaire (Gunningham *et al.*, 2003), and covered:

- corporate governance structure;
- vision statement about commitment to pursue a healthy environment;
- definition of a healthy working environment; and
- application of ISO 14001 EMS.

For the application of occupational, health and safety measures we have conducted 51 interviews with project managers, union representatives and employees, all of them being involved in large projects. The review of the literature highlighted that there is close link between occupational, health and safety performance and management, government and employee involvement (NOHSC, 1999). Hence the set of questions to the managers incorporated this theme. More specifically, the questions sought information on the role of managers, employees and government in overseeing occupational, health and safety standards enforcement in large Australian construction operations. The questions concerned:

- procedures in place to resolve occupational, health and safety conflicts on the construction sites;

Table I Selected Australian construction industry corporations in 2006

<i>Companies</i>	<i>Activities undertaken</i>	<i>Company's revenue^a (\$m)</i>
1	Infrastructure	1,490
2	Engineering construction; infrastructure	2,638
3	Mining, engineering construction, quarrying	1,800
4	Tunnels, industrial, facility and power services	10,00
5	Civil engineering, infrastructure, quarrying	7,000
6	Engineering and construction, insurance	3,142
7	Project, design, and construction management	5,254
8	Rail, road, marine	2,000
9	Infrastructure	636
10	Project, design, and construction mgt	12,127
11	Engineering, infrastructure	10,033
12	Project development	584
13	Mining and civil construction	804
14	Construction engineering	650
15	Construction, infrastructure	3,177
16	Building and civil engineering	2,021
17	Industrial maintenance, engineering	2,400
	Companies revenue total	65,756
	Construction industry revenue total ^b	157,230
	Company's revenue/construction industry revenue (%)	42

Note: ^a Company's revenue – total amount of money received by a company for goods or services sold before deducting expenses; ^b Construction industry revenue – total amount of revenue of all construction industry organizations

Source: Petrovic-Lazarevic (2008, p. 95)

- responsibility for occupational, health and safety measures;
- levels of government and industry cooperation;
- balancing the principles of self-regulation and government regulation;
- efforts by the Australian government to improve occupational, health and safety in the construction industry;
- mechanisms of enforcement of occupational, health and safety measures and encouragement of occupational, health and safety standards by the government;
- determination and application of safety performance for the industry;
- comparison of the Australian construction industry's safety record compared to other countries; and
- relationship of improved occupational, health and safety performance to increased competitive advantage in Australian firms.

Most of the interviews were conducted by telephone with some of those relevant to occupational, health and safety measures conducted on construction sites in Melbourne area, Victoria. The interviews on average lasted around one hour.

In order to collect information relevant to corporate governance process, in addition to interviews with corporate governance representatives, we also interviewed an employee, a supplier, community representative and a customer from each company. Most of participants, including project managers who were requested to access occupational, health and safety measures applied, were recommended by the corporate governance representatives because of their knowledge of the company. Further, a project manager from each company recommended an employee and union representative for the interview. These recommendations came at the expense (limitation) of sample bias. We recorded and transcribed all interviews and used Nvivo to analyze the themes.

4. Discussion of findings

Based on the above definition of a good corporate citizen pertinent to EMS, we examine here the relevance of EMS application to the image of a good corporate citizenship in the Australian construction industry. We have applied an EMS research framework that comprises moral obligation, sustainability, relationship with suppliers, commitment to local community protection and engagement, and relationship with employees and unions; as being part of the established good corporate citizen definition. Table II provides a summary of the research findings according to the established definition of a good corporate citizen.

In the following sections we discuss these findings in more details.

4.1 Organizational vision statement

All companies have a vision statement that highlights their determination to support a healthy working environment (see Table II). Only the companies involved in infrastructure projects (35 percent) highlight the importance of improving occupational, health and safety

Table II Good corporate citizen applicability in Australian construction industry organizations	
<i>Characteristics of good corporate citizen</i>	<i>%</i>
Healthy working environment vision	100
Improved corporate governance structure	77
Sustainability	44 ^a
ISO14001 EMS	88
Occupational, health and safety measures	77

Note: ^aSustainability figures were derived by using the following equation: Sustainability=Healthy working environment definition (50 percent) + EMS practice (50 percent) = 0 + 44 percent

measures (see Table I). That may be in accordance with intentions to reduce the incident rate of 60 percent higher than the overall construction average. It is interesting to note that significantly high percentage (80 percent) of companies advocate the importance of satisfying needs of a community in which they operate and ensuring the overall well-being of the community, but they do not provide an explanation what these needs and well-being mean. In addition, none of the approached companies has a system or way to know how and to what extent their support of the community is perceived in the community.

In an attempt to be socially accepted to achieve best practice, all companies relate their vision to the implementation of an ISO 14001 EMS. This is consistent with the arguments of Ghazali (2007), Pederson (2007) and Cradden (2005), but also with the arguments of Porter and Kramer (2006) and McWilliams *et al.* (2006), who state that being a good corporate citizen means doing "the right thing". The findings further indicate that the organizational culture is healthy working environment oriented in the Australian construction industry corporations.

4.2 Corporate governance structure

The finding that 77 percent of the sample has changed their corporate governance structure into a new health oriented working environment, indicates companies' understanding of the influences of the corporate governance structure on being a good corporate citizen (see, e.g. Ghazali, 2007; Yadong, 2007; Pederson, 2007; King, 2006; Abor and Biekpe, 2007; Lipman and Lipman, 2006; Myers, 2003). Since the Anglo-Saxon corporate governance system practice in Australia is vulnerable because of the board duality of the chief executive officers' role (Yadong, 2007), which is imminent to the old structure, it remains to further research whether the board duality of the chief executive officer's role is a cause of decision to change the corporate governance structure into new structure.

The 23 percent of the observed companies have not yet applied the enhanced corporate governance structure (see Table II). It is interesting to note that they perform other activities rather than only construction industry activities, such as insurance and industrial maintenance (see Table I).

The companies with the applied enhanced corporate governance structure have introduced new members of the board of directors who are in charge of community matters. This is an improvement compared to the old structure's board of directors' with primarily remaining external directors. These new members are not community representatives. Further to this, the drawback of new structure remains with a lack of suppliers' representatives in the board of directors. According to Yadong (2007), lack of both community and suppliers' representatives on the board jeopardizes the external healthy work environment factors. In addition, because of the lack of community representatives in the board, the important sources of information to design corporate environment culture, as presented in Figure 1, have been reduced to the Government Supported Environment Policy Guidelines and Government Regulation. That may cause difficulties to the corporations to responding to health environment related requests from their communities. It may even contribute to creating perception of the companies that are not environmentally concerned with possible negative repercussions to their future competitive advantage (Petrovic-Lazarevic, 2006).

4.3 Definition of a healthy working environment

Interviews with corporate governance representatives reveal that a healthy working environment embraces safety in the workplace, but it seems there is no understanding that the external environment is part of a healthy work environment.

Approached employers, employees, community representatives, customers and suppliers have similar perceptions of a healthy working environment. Their understanding of the relevance of good communication and feedback processes, plus the implementation of occupational, health and safety measures and training are in accordance with Yadong's (2007) internal factor of a healthy working environment. Further, endeavor of all interviewees of ensuring safe environment supports Yadong's (2007) external factor of a healthy working

environment. It is interesting that in terms of a healthy working environment in the workplace the employees point to an open communication and empowerment, while for corporate governance representatives a healthy working environment is a synonym for good occupational, health and safety measures. Suppliers are in favor of empowerment and the use of teamwork. For community representatives the communication is crucial, followed by the need for trust amongst all parties including the development of ethical policies to sustain the healthy working environment.

Obviously, in the Australian construction industry corporations there is a different stakeholders' understanding of what is a healthy working environment. This may point to some extent to different interpretation of sustainability (Porter and Kramer, 2006) among stakeholders (see Table II).

Sustainability seems to be a larger notion than an environmental management system. That is, EMS relates only to the environment, while according to the literature sustainability should include not only environmental, but other concerns as well (Voinov and Fareloy, 2007).

EMS as a voluntary standard does not include a moral obligation by an organization, but it indicates moral awareness of a company to accept the standard to do "the right thing" from an environmental point of view. After deciding to establish an EMS, the organization becomes legally obliged to follow the established procedure to environmental activities. Further, decisions to apply an EMS imply, to a certain extent, the application of sustainability practices in an effort to help future generations meet their needs.

4.4 Application of EMS and occupational, health and safety measures

We found that 88 percent of interviewed companies have ISO14001 EMS certification. Of the remaining, one is in the process of acquiring it, and the other company is debating the issue internally. This finding is linked with Pederson (2007), and Benn and Dunphy's (2007) understanding of the importance of protecting the environment from pollution and ensuring no dangerous working conditions.

By introducing EMS, the approached companies are obviously keen to manage their global business effectively and at the same to improve the general environment. This finding supports studies by Petrovic-Lazarevic (2005), Price and Newson (2003), Myers (2003), and Vogel (2005).

The companies' rationale for applying EMS is in accordance with Pokinsak *et al.* (2003) community requirements; Melnyuk *et al.* (2003) quality improvement; and competition that corresponds to Bansal and Roth (2000) and Florida and Davison (2001).

All companies state that EMS process adds a quality to their management systems. The estimate of EMS adding value is based on the company's established measurable processes, thus contributing to a variety of implementing EMS measures across the industry.

Commitment of implementing occupational, health and safety measures, as an internal factor of a healthy working environment (Yadong, 2007), contributed to reducing the financial and time-related costs associated with occupational accidents. Thus, it has a positive influence on the competitiveness of the sampled companies.

However, when it comes to sub-contractors, their safety varies depending on their size. 75 percent of respondents confirmed that small sub-contractors lack resources to design and implement their own safety policies, because of price and the service track record being more important. This is in line with findings of US Bureau of Labor Statistics (1995) and Mayhew *et al.* (1997). All companies provide some sort of training on site for hired sub-contractors, which can minimize human error to cause fatalities; thus supporting Rasmussen (1987) and Lingard and Yesilyurt (2003). Big sub-contractors have their own occupational, health and safety policy, which is audited prior to commencement of work. Hence, it seems there is less chance of injuries to occur. It is interesting to note that irrespective of the size of sub-contractors, only 25 percent of companies organize monitoring of hired sub-contractors by a safety inspector on construction site.

Further, commitment of implementing occupational, health and safety measures has a disadvantage by not legally clarifying whose responsibility is for maintaining occupational, health and safety in the Australian construction industry. There is an additional issue related to the existence of different state and federal regulations of occupational, health and safety measures. The drawback is in accordance with the academic and industry literature in the area of WorkCover (Cole, 2003) suggesting that regulatory issues and matters of managerial responsibility and accountability need to be rectified in order to improve the industry's occupational, health and safety performance (Petrovic-Lazarevic *et al.*, 2007). A message from Cole's (2003) study is a need to improve sub-contractors safety and have intensified on-going government, construction industry and union communication and collaboration, at both state and federal levels. At present a significant difference in legislature between the states exists; there is no national cohesiveness concerning occupational, health and safety; and the trust between industry management and the builders' unions is low.

It is envisaged that should the tripartite communication (government, industry, union) and collaboration be implemented, it might lead towards improved Australian construction industry occupational, health and safety measures and a safer, more globally competitive industry; thus being in accordance with Wamuziri (2007), Larsson and Field (2002), Lingard and Yesilyurt (2003) and Lin and Mills (2001). The federal government should take actions by setting unified national occupational, health and safety policy guidelines for the states. The industry should pursue occupational, health and safety measures with clear responsibility and accountability for both managers and workers, and implementation of ongoing occupational, health and safety training and education. The role of the union would be to lead dialogue with government and industry in the development of detailed occupational, health and safety strategies.

When it comes to the relationship with suppliers and commitment to local community protection and engagement, it appears that these parts of the research framework are healthy working environment external factors (Yadong, 2007), and as such make part of EMS. Relationship with employees and unions, however, seems to be very relevant to EMS as being internal factor of a healthy working environment (Yadong, 2007). Indeed, according to the literature review (Zobel, 2007; Lundan, 2004; Christini *et al.*, 2004), the most important component of EMS is the organizational commitment to protect the environment. This should include the organizational moral obligation to do "the right thing", organizational vision and supporting corporate governance structure. EMS also covers occupational, health and safety measures as internal part of healthy working environment and partially sustainability. Hence, the established definition of a good corporate citizen in this paper, to a large extent covers EMS.

5. Conclusions

In Australia, construction companies are aware of the importance of having an image of a good corporate citizen who cares for the environment. In this respect, majority of the companies apply EMS measures. In addition, the companies are re-thinking their health, safety, and environmental responsibilities, and appear committed to improving their industry competitiveness.

Organizational vision covers moral obligation to do "the right thing" with a significant emphasis on EMS application. The companies' core values articulated in the organizational vision include a healthy work environment, although the understanding of what this means varies.

Under a classic governance structure, diverse understandings of a healthy work environment may contribute to a gap between the vision of the company and its perception in the community. Most of the companies (77 percent) are in the process of improving their governance structure in accordance with EMS standards thus improving stakeholder input. When it comes to occupational, health and safety measures, however, there are still issues such as sub-contractors safety and cooperation between, industry, union, and government to be resolved. Irrespective of EMS application, this may jeopardize organizations' image of good corporate citizen in the Australian construction industry.

According to the findings of this research project, EMS plays a part in creating the image of a good corporate citizen. But to become of more importance for an image of a good corporate citizen, the Australian construction industry corporations should apply the enhanced corporate governance structure with both suppliers and community representatives participation in the corporate governance. Further, a unique definition of a healthy working environment accepted will contribute to a unique interpretation of sustainability. Finally, equal occupational, health and safety regulations for all states in Australia may help to improve sub-contractors safety and cooperation between, industry, union, and government.

Although this paper relates to the Australian construction industry, the method we applied is useful to explore the relevance of EMS to the image of a good corporate citizen in any industry that is environmentally sensitive.

Further research will concentrate on EMS relevance for small companies in order to determine its overall influence to the well being on the Australian construction industry.

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About the author

Sonja Petrovic-Lazarevic is an Associate Professor at Monash University. She has PhD, MA and BA (honours) from the University of Belgrade. She has published 54 articles in *Construction Management and Economics*, *European Business Review*, *Knowledge-based Systems*, *Journal of the American Society for Information Science and Technology (JASIST)*, *Neural, Parallel and Scientific Computations*, *Knowledge-based System*, *International Transactions in Operational Research*, and other journals; nine books; and 30 book chapters. Her research area is corporate governance. Sonja Petrovic-Lazarevic can be contacted at: sonja.petrovic-lazarevic@buseco.monash.edu.au

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