

**KNOWLEDGE, CULTURAL CHANGE IN ORGANISATIONS AND
COMPETITIVE ADVANTAGE: CASE OF CONSTRUCTION
INDUSTRY CORPORATIONS**

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Abstract

The paper examines the role of knowledge management in changing organisational culture. Successful organisations manage knowledge towards high market share. Corporate Governance of Construction Industry companies is under scrutiny not only for financial performance but also for ethical issues such as preserving a healthy environment. A specific approach to knowledge management helps to clarify the role of main players in corporate governance in supporting a healthy environment. The approach also identifies what is key knowledge the Australian Construction Industry corporations should pay attention to preserve their sustained competitive advantage.

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INTRODUCTION

In response to corporate scandals in the USA, Australia and Europe, dealing with business ethics has become an increasing interest of business corporations. In particular, the interest relates to a need to focus on adjusting organisational culture in providing an efficient working environment (Myers, 2003; Petrovic-Lazarevic, 2004).

Corporate governance is a system by which business corporations are directed and controlled (Westphal and Zajac, 1997; Meyer, 2000). The system consists of a set of internal rules to distribute rights and responsibilities among the management, the board, the shareholders, and other stakeholders (Petrovic-Lazarevic, 2003). Corporate governance assumes a certain social responsibility that is widely studied in a form of corporate social responsibility.

Corporate social responsibility is a set of principles established by an organisation to meet social expectations for appropriate business behaviour. The principles can be understood as an organization's consideration to accomplish social benefits along with the interests to gain and sustain organisational competitive advantage (Petrovic-Lazarevic, 2004).

Hemingway and MacLagan (2004) argue that corporate social responsibility is related to the company's public accountability for both its financial performance and social and environmental performance. Snider, Hill and Martin (2003) state that corporate social responsibility construct describes the relationship between business and society. Although the opinion that companies' social responsibility is to be profitable by legal means prevails in today's literature, there is a widespread understanding that social responsibility should be more related to serving the community and direct beneficiaries of the company (Kok, Weile, McKena and Brown, 2001). In this respect, McAdam and Leonard (2003) point that corporate social responsibility deals with employees, customers, suppliers, human rights and corporate sustainability, but it also should primarily satisfy ethical and environment considerations. Furthermore, recent research has shown that today top global companies communicate to their stakeholders a commitment to socially responsible behaviour through espousing an ethical framework of their overall mission within society and comprehensive environmental policies. The environmental policies reveal concern for the larger ecology while serving the needs of company's customers (Snider, Hill and Martin, 2003).

In Laszlos' opinion (2002) knowledge has become a key factor of gaining and sustaining the competitive advantage of business organisations. Maskell (2001), Storper and Salais (1997), and Morgan (1997) believe that knowledge exchange among contractors, suppliers and close community (Piore and Sabel, 1984) contributes to organisational competitive advantage. Such knowledge has both explicit and tacit dimension (Brown and Duguid, 2001).

Knowledge, can be defined as human capability of providing data and information useful for decision making processes (Laudon, and Laudon, 2001; McKeown, 2001) and, therefore, characterized as simple versus complex, tangible versus intangible, independent versus systematic, explicit versus tacit (Garud and Nayyar, 1994; Matusik and Hill, 1998).

Explicit knowledge relates to the organisational culture indicating how things work in the organisation based on organisational policies and procedures (Petrovic-Lazarevic, Coghill and Abraham, 2004). Component knowledge, as a subject to discovery of an organisation, and ranging from straightforward technical know-how through highly systemic scientific knowledge (Tallman, Jenkins, Henry and Pinch, S, 2004) is a part of explicit knowledge. According to Matusik and Hill (1998), since the component knowledge tends to leak out of the originated firm it cannot generate the organisational sustained competitive advantage.

Tacit knowledge is based on personal knowledge, experience and judgments. It contributes to the community perception of ethical characteristics of the organisation (Petrovic-Lazarevic, Coghill and Abraham, 2004). Tacit knowledge is a composite part of organisational architectural knowledge (Tallman et al, 2004). Being organisation specific and path dependent complex (Petrovic-Lazarevic, 2004), such knowledge supports organisational competitive advantage (Tallmand et al, 2004; Teece et al, 1997).

This paper examines the role of knowledge management in changing the Australian construction industry corporations' culture towards preserving a healthy environment. As we develop our framework, we explain the present corporate governance model and its relevance to both health environment and organisational health and safety measures. Then we discuss the proposed new governance model which comprises organisational change towards healthy environment sensitive corporate social responsibility. Our focus in this paper is to point to the importance of knowledge sharing among the organisation and its external environment comprising of environmental policy, community and government in order to sustain organisational distinctive competencies.

CORPORATE GOVERNANCE IN THE AUSTRALIAN CONSTRUCTION INDUSTRY TODAY

Corporate Governance in construction industry is distinguished from corporate governance in other industries due to the characteristics of the industry itself. Construction industry has a specific physical nature of the product, structure of the industry and the organization of construction process (Petrovic-Lazarevic& Djordjevic, 2002).

The product of construction industry is mostly large and expensive and since it is located in a specific geographic area not generally transportable. Buildings and other structures are usually made to meet the requirements of each customer.

Three separate groups of people are involved in a construction process: client, designer and contractor. The client hires a designer to nominate a tender for selection of equipment for the building work in the beginning of the construction process. Having the equipment selected, the designer plans the principal activities of the construction work. After that, a tender is created for the contractor that usually consists of many separate firms. To compete, each contractor follows a legal bidding procedure. With the chosen contractor, the designer makes a detailed final plan of construction work activities. The chosen contractor follows the established plan (Petrovic-Lazarevic, 2002).

The work system in construction industry is based on projects. Each project involves several organizations and subcontractors that operate with their own objectives and pressures. In order to organise a construction process to function smoothly, the project manager has to control overall costs, time and quality of actions undertaken (Holmes Lingard, Yesilyurt and De Munk, 1999).

Construction industry firms consist of large organizations and small to medium firms (Lin and Mills, 2001). Large organisations take form of corporations indicating that corporate governance is an applied management style (Westphal & Zajac, 1997; Meyer, 2000). They are the focus of our interest.

Price and Newson (2003) state that in order to remain competitive construction industry organisations have to be highly innovative not only in providing their effective and efficient building and constructing service, but also in managing their business. With an increasing concern related to social integrity of corporations in their operations, management needs to fit its organisational capabilities and organisational culture for supporting healthy environment. That is, managers have to realize that the business of their organisations can prosper if there is a common knowledge of their organisations' high ethical and social responsibility to preserve healthy environments (Burnett, 1999).

In construction industry large companies have knowledge sharing problems with their community. Accordingly, in presenting what organisations are and what they claim they do, there is a great concern as to what extent organizational vision is perceived in the external environment and how much it differs from official organisational aspirations (Petrovic-Lazarevic, 2003b). Accordingly, a conflict appears in what organizational leaders understand as community requirements for corporations in treating employees, suppliers and customers without prejudice and acting ethically, and local perception of such activities. The conflict can significantly affect organizational competitive advantage.

Although many authors argue that organizational culture is the key to solve ethical problems underlying the role of leadership as a model for ethical reasoning, and companies do hire ethics consultants and apply ethics codes, there is no evidence of abandoning organizational unethical behaviour (McKendall, DeMarr, and Jones-Rikkens, 2002; Petrovic-Lazarevic, 2001; Victor and Cullen, 1988). In accordance with an increasing interest of dealing with business ethics, large organisations focus on how to satisfy not only consumer and stakeholders' needs, but also provide an efficient working environment (Coutinho and de Macedo-Soares, 2003). It appears that corporate governance is in charge of social responsibility when it comes to preserving a healthy external environment. Indeed, Sama and Shoaf (2003) state that only top management can contribute to true ethical progress by communicating the value of ethics to its stakeholders and lower level managers, while outside auditors and the board of directors maintain a role in this process to attest the management integrity.

In respect of providing a healthy environment, within less than decade a significant number of the Australian construction industry corporations have shown an interest in having the International Organisation for Standardization (ISO) 14001 environmental management system applied (Christini, Fetsko, and Hendrickson, 2004). Environmental management system improves regulatory compliance requirements of organisations, reduces liability and risk, harmful impacts to the environment, prevents or reduces pollution and waste, improves in site and project safety, improves relationships with stakeholders (in particular: government agencies, community groups and investors) and establishes a system for continued environmental improvement (Christini, et al, 2004). Many companies that have introduced the environmental management system add on top of this requirement a goal setting and public reporting of emissions beyond legal requirements. As such, they contribute to minimising a gap between community perception of their goals presented in a company's mission and a real meaning of it. The other interesting environmentally related key element comprises formal goals relevant to a company's environmental, legal and regulatory requirements or environmental policy. All key elements are subject to an annual review by top managers, which is an important commitment to guarantee the credibility and effectiveness of an organization's environmental management system. Accordingly, the top managers' role is to communicate not only the annual review to stakeholders and lower level managers but, also the value of ethics of the organisation (Zeng, Tam, Deng and Tam, 2003). Obviously, the Environmental Policy, Community and Government are the elements that constitute the essence of the ISO 14001 environmental management system certificate in the Australian construction industry corporations.

Most applied corporate governance structure today allows key executives to jeopardise business ethics (O'Meara (2003). The structure consists of External Auditors and Corporate Employees who influence decisions of the Boards of Directors, while Corporate Executives receive instructions from the Boards of Directors (See Figure 1). Such structure points to complexity of providing business information and vulnerability in receiving asymmetric information from the corporation's business units (Sama and Shoaf, 2003). The structure also highlights that the organisational culture excludes any knowledge sharing among those who are affected by the company such as customers, local community and local government.

Figure 1 about here

Indeed, from Figure 1 it follows that the influence of community perception of organisation's activities to the Boards of Directors is neglected in present corporate governance structure and therefore does not allow a transfer of knowledge from direct beneficiaries of the company, sub-contractors and suppliers to the company's governance itself. Even if a corporation does apply ISO 14001 environmental management system standards, as is the case for a number of Australian construction industry organisations, community concerns for organisational business ethics may persist. Not to mention any influence from other parts of external environment - such as government or officially applied environmental policy - to the Board of Directors, which are in the present corporate governance model obviously disregarded.

Care for a healthy environment comprises not only construction industry corporation concerns of keeping its external working environment in good shape, but also providing a high level of occupational health and safety measures to preserve good internal working conditions. The former mostly imposes application of ISO 14001 environmental management system, while the latter comprises occupational health and safety measures in the Australian construction industry organisations.

Occupational Health and Safety Measures

According to a recent research project conducted in Australia (Petrovic-Lazarevic and Perry, 2004) the enforcement of occupational health and safety regulations in the Australian construction industry is based on bringing safer working conditions in large organisations in order to make them more productive and globally competitive.

The study involved exploratory research in 15 Australian large construction companies. The research project findings determine that there are some occupational health and safety measures concerns in the industry. These revolved around subcontractors and safety, employee attitudes and organisational culture; low level of occupational health and safety measures training in employees and middle management; and a little cooperation between industry, unions and government.

The data analysis determined that the majority of small subcontractors do not have sufficient resources to design and implement their own comprehensive safety policies, although there is a clear indication of importance of having such policies when a large organisation offers a job to a sub-contractor. Where there was no policy, corporations tried to ensure that subcontractors were complying with the corporation's occupational health and safety measures policy by monitoring their actions.

From the series of recorded responses to research questions, it seems that the construction industry culture at sub-contract level is typically price-focussed, with hazard bonuses as a monetary compensation for dangerous work.

Most respondents reported that their company encouraged putting value on safety in the organisational culture. Annual performance evaluations, training, brochures and posters were all ways of encouraging employees to value safe work practices. Other specified methods of increasing the motivation for safe work practices included the development of a safety incentive scheme, regular newsletters about safety and safety meetings. Particular mention was made of the role of training.

Several respondents indicated that they saw training as a way of fostering safe work practices not only by changing attitudes towards safety, but also by increasing knowledge and awareness of safety risks in the workplace. In particular, it appeared that trainings for both workers and managers contributed to having less injuries at construction sites.

Most respondents felt that the responsibility for ensuring adequate training lay with management, but the role of unions is to encourage employees to undertake training and ensure the safety of workers.

The research findings also indicate a union/government conflict and antagonism in the construction industry to a greater need for union cooperation with the government to properly address occupational health and safety measures issues. It appears that the unions were using safety issues as a weapon for stopping work and other industrial action. As a consequence, the agenda of the unions sometimes complicated the industrial relations process, making managers sceptical about real occupational health and safety measures concerns on-site.

Overall, although a general perception of occupational health and safety measures imposed to the Australian Construction Industry corporations does help them to have an image of organisations who care for a safe working environment, it seems that there are still many issues to be resolved in order to help corporations to be more competitive. These issues, by all means influence the community and competitors perception of the organisational ethical responsibility.

Since the common knowledge of organisational responsiveness to preserve healthy environment, as Burnett suggests (1999), influences an image of the organisation that cares for its community - it seems important to introduce a way of collecting data and being informed of what the community's understandings of organisational business ethics are. The process of knowledge transfer from community to the organisation indicates a need to change organisational culture from a strictly business oriented governance with the inside of the organisation key players to an open governance where the opinion of those who deal with the organisation and are a part of the organisational environment is taken into consideration as a support to sustain organisational competitive advantage. Therefore, we propose a new corporate governance structure for construction industry organisations that by comprising a board social responsibility committee imposes a cultural change towards preserving a healthy environment.

THE ROLE OF CULTURAL CHANGE IN IMPROVING CORPORATE GOVERNANCE IN THE AUSTRALIAN CONSTRUCTION INDUSTRY

Compared to the corporate governance structure widely applied in the Australian construction industry corporations (See the Figure 1), the new structure establishes a Board Social Responsibility Committee (See Figure 2). In the new governance structure the Board Social Responsibility Committee will overview the role of corporate governance and, consequently, avoid a gap in between the vision of an organisation and its perception in a community. The Board Social Responsibility Committee will also be able to overcome regional differences in values in construction industry organizations working in different cultural environments by being responsible for all socially affected and related activities in organizational external environment. An image of an organization that cares for its environment will, no doubt, contribute to the organization being better positioned among its clients and users compared to organisations that do not perform high social responsibility.

Insert Figure 2 about here

Szamosi and Tsolakis (2003) argue that top managers create corporate environmental culture as the sum of beliefs and values that reflect environmental awareness of an organization. According to their research findings, a large majority of world wide known organisations state that environmental issues are of extreme importance to remain good position at the global market. Hence, environmental leadership must be highlighted in an organizational strategy and be presented to all stakeholders. In other words, this indicates that the environmental policy should be part of organisational mission statement. Further to that, Jaques and Clement (1991) argue

that corporate governance's responsibility is to deal with environmental strategies. Zairi (2000) suggests that a good image of an organization depends primarily on strong commitment of corporate and social governance to practicing optimal environmental policies.

In the proposed corporate governance structure for the construction industry organisations a Corporate Environmental Culture is influenced by information received from three sources: Environmental Policies, Community and Government regulations. The sources in fact represent the crucial elements that constitute the essence of ISO 14001 environmental management system certificate (See Figure 2).

Information flow indicates a knowledge transfer Environmental Policy to Corporate Environmental Culture. In other words, both explicit knowledge and external knowledge are incorporated into organisational environmental culture. Intangible knowledge, however, may also play a significant role in organisational culture change. For example, an overall impression in changing environmental conditions caused by social, political and legal influence may impose specific activities in the organisation to improve its image in a community.

Community refers to organisational ethical issues that are highly understood and accepted by the locals. It comprises both tangible knowledge as a part of organisational architectural knowledge and explicit knowledge but not component knowledge flow from the organisation to subcontractors, customers and suppliers. The influence of such information, particularly tangible knowledge, creates the overall perception of organisational ethical activities in the community. This does not mean, however, that the organisation should be involved in solving all social problems, but only those that the company has caused and are related to its business operations and interests (Wood, 1991).

Government's role is to support the corporate social responsibility with law, what may include a request to comply with the ISO 14001 regulations. From the proposed model obviously, all three types of knowledge: explicit, external and intangible contribute to shape corporate environmental culture, which by its own side influences an attitude towards a healthy environment.

In the proposed model a Corporate Environmental Culture is also influenced by Corporate Employees, indicating not radical, but rather slow process towards cultural change. In other words, by following a well established type of organisational culture the Corporate Employees need time to accept and adjust to a new organisational culture. We believe that a slow process preserves the organisation's distinctive competencies, while the radical may jeopardize it.

Then, the Corporate Environmental Culture will play an active role in influencing The Boards of Directors' decisions to determine the corporation's strategic intent to support environment that its local community will welcome.

The new governance structure also points to the significance of the Board Social Responsibility Committee that will have an active role to transfer knowledge from the Corporate Executives to the Boards of Directors and vice versa. The knowledge will comprise tacit knowledge as a bearer of organisational competitive advantage, explicit and intangible share of data and information about both the organisational care to preserve a healthy environment outside the organisation and maintain and improve good working conditions in the organisation itself. According to the recent research findings (Petrovic-Lazarevic, Perry, 2004), latter imposes an improvement of organisational health and safety measures relevant to sub-contractors, construction industry corporations' employees attitudes towards acceptance of pursuing the organisational health and safety measures, organisational health and safety measures trainings and improved cooperation between construction industry unions and government.

We believe that proposed corporate governance structure based on organisational culture towards preserving both healthy environment and good working conditions will contribute to the construction industry corporations to achieve a high share market.

CONCLUSIONS

Corporate social responsibility relevant to serving the community and direct beneficiaries of the construction industry corporation by preserving healthy environment is of growing importance towards achieving sustained corporations' competitive advantage. At present the existing corporate governance structure in the Australian construction industry creates problems that affect organisational competitiveness. The organisational culture is not based on sharing knowledge from and to the external environment in treating customers, suppliers, contractors and employees without prejudice and acting ethically and local perception of such activities. Consequently, it does not reflect environmental awareness of a corporation. It does establish, however, asymmetric information and data flow from its business units, allowing key executives to jeopardize business ethics. It also raises concerns to preserving a good working environment by applying presently applied occupational health and safety measures.

The proposed new corporate governance structure highlights the importance of creating a new corporate environment culture by providing and sharing external, explicit and tacit knowledge from and to Environmental Policy, Community and Government, which in fact are the elements that constitute the essence of ISO 14001 environmental management system certificate. Tacit knowledge is of significant importance since it contributes to the community perception of ethical characteristics of the organisation. If a construction industry corporation signs and follows ISO 14001 environmental management system series instructions, the Board of Directors would have a clear message from a Corporate Environmental Culture Committee how to improve its working environment. On the other hand, the community will be aware of the company's environmental policy measures undertaken to protect a healthy environment, what will undoubtedly minimise a gap of community perception of organisational goals and environmental official organisation aspirations presented in its vision. The cultural change should further concentrate on improving organisational health and safety measures to provide good working conditions. It seems knowledge shared in organisational environment about both care for preserving a healthy environment and providing safe working conditions in the organisation will improve the Australian construction industry corporations' competitive advantage.

Further research will follow to determine how much time is needed for Corporate Employees to accept and adjust to a new organisational culture in order to preserve the corporation's distinctive competencies.

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Figure 1: Existing Corporate Governance Structure

Source: Sama and Shoaf, 2003

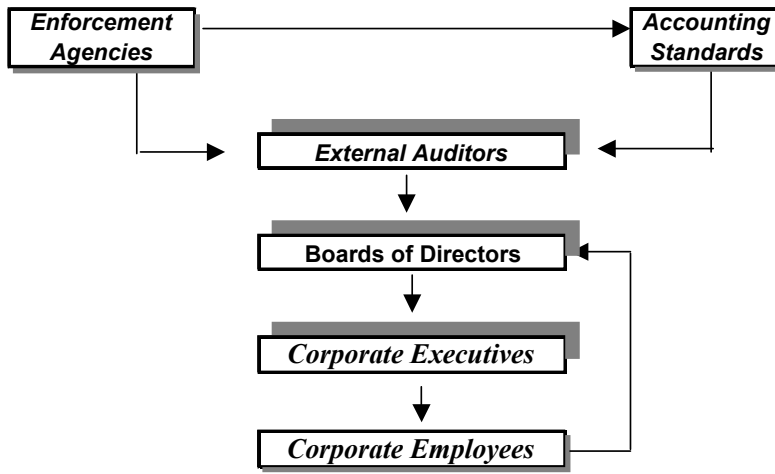


Figure 2: Improved Corporate Governance Structure

