

Achieving Energy Conservation - The Role of Corporate Culture

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Abstract

Evidence of what business has done to the environment is plentiful, and unless business goals are related to environmental goals, things will get worse.

This paper considers the nature of corporate culture, its importance to an organisation, and its impact on organisations performance. A review of the impact of industrial and business growth is considered as a foundation for the need for eco-effectiveness in business, energy-efficient buildings and “green buildings”. How to reconcile corporate culture with an eco-focussed organisation is explored, and suggestions made for organisations to follow.

Keywords

Culture: environment: energy-efficient, green buildings, eco-business.

1. Introduction

How big a problem is the world facing in the degradation and depletion of its resources? The figures get worse each year as the earth’s 6 billion people could reach more than 9m in the next 50 years (United Nations, 1998) and its resources that are mined, extracted and harvested are poorly distributed, such that approximately 790 million people in the developing world are still chronically under-nourished (World Resources Institute, 2001).

Yet in some developing nations endowed with great wealth, the lack of energy conservation has allowed consumption of electricity to rise by 10% per year, which is 4 times the world’s average of 2.5% (Kazmi, 2003).

Total world consumption of marketed energy is expected to expand by 54% from 2001 to 2025. (EIA, 2004).

In the past five decades alone, nearly a fifth of the earth’s forested areas have been cleared, and every national system in the world today is in decline. We are losing 16 million hectares of forest each year (Boyd, 2001). There are approximately 100m species (animals, plants etc) in the world, and 100,000 are lost per year.

Buildings are the major source of pollution, and in the US buildings produce 43% of the country’s carbon dioxide (Pew Centre, 2005) which has been shown to relate to climate change (or the greenhouse effect). The building stock of the US uses 36% of all energy consumed in the US (EIA, 1998), and the commercial sector uses 45% of all electricity (Battles and Burns, 2000). This stock will be increased by another 38m buildings by 2070.

Only 2.67% of the UK’s electricity was generated from renewable energy resources in 2003, with hydro-electricity contributing 30% of this amount (Environment Agency, 2005).

There is a significant move in building design to improve efficient use of energy, often referred to as the “Green Building” movement. The US Green Building Council and the scale of LEED (Leadership in Energy and Environmental Design) are important developments in the energy-efficiency of buildings. Glen Murcott’s (the 2002 Pritzker Prize-winner) philosophy includes keeping materials in the materials cycle without degrading, to safeguard the surrounding environment.

Corporations build larger buildings, and more of them, without in many cases considering their impact on the environment, despite the wave of ‘environmentalists’ who have campaigned over the years. Rachel Carson (Carson, R. 1962) in her book “Silent Spring” made impassioned pleas for business to take responsibility for their effect on the environment of the future – but it mostly fell on deaf ears. There are notable exceptions where the environment has taken precedence over the drive of capitalism, one notably being the re-routing of the Channel Tunnel approach road at the UK end because a rare and endangered species of wildflower that was growing in the field through which the road would go, and this was the only place in the UK where these flowers grew.

In order to arrest the rising environmental damage due to industry and commerce and create an enduring society, there must be created a system of commerce and production wherein every act is inherently sustainable and restorative.

Organisations must integrate economic, biologic and human systems to create sustainable methods of doing business, if the earth is to survive and remain inhabitable.

The purpose of this paper is to show how important corporate culture is in the whole sustainability scenario, and how it can be harnessed to support the movement towards greater sustainability.

2. Corporate Culture

Businesses are human institutions and as such have cultures which have shown to play a major part in the success of business (Kotter and Heskett. 1992).

As a subject, corporate culture really emerged in the 1970s and is identified through values, behaviour patterns, rituals, ethics, and legends that exist in an organisation

McKinsey & Co defined its culture as “the way we do things round here”. Most organisations have a set of Values/Beliefs which guide their operations and these should be openly shared, discussed and reviewed. It is in the “Value Set” of an organisation that one would expect to see reference to environmental sustainability beliefs, and it is in the behavioural patterns that the operationalisation of these beliefs are worked out. Some behavioural patterns become rituals which strongly identify a culture and define the way it operates.

Business is the practice of the possible, it is not an exact science, and hence many cultures evolve as the business grows, generally without guiding principles. This is particularly so in the area of business economics, where there are few guidelines for businesses to follow in respect of biology, health, the environment, and the ethical import of its actions. The thalidomide, Torre Canyon, and Chernobyl events bear witness to this. In the case of the latter two events, the combinations of growth in size of operations, global interconnectivity and low ethical values combined to create devastating results.

The language of business culture rarely contains reference to sustainability, energy-saving and environmental impact, it is generally a bi-polar language of profit and loss. It is interesting that the Hawaiians have 100 words for ‘falling rain’, and the Arabs have many names for

‘camel’ since these are very important to them!! Business has few names to measure its success.

Strong cultures exist when nearly all managers share a set of relatively consistent values and methods of doing business, and there is a certain style and way of doing things. These cultures do not generally change much when a new CEO comes in, and as such make it difficult to change direction for the organisation.

It is important from the viewpoint of creating a sustainable future that organisation cultures contain value-sets and issues of conservation – sustainability – eco-effectiveness. The key factor in a corporate culture is competent leadership, a company’s greatest asset, and without which an organisation is unlikely to succeed in all aspects of its life. If the leader is passionate about environmental sustainability and energy conservation – so will be the organisation.

3. Eco-Efficiency

The concept of eco-efficiency is bound up in using the same system that caused the environmental problem in the first place – it merely slows it down. (McDonough & Braungart, 2002). Eco-efficiency looks at reducing, re-using, recycling and regulating activities to save energy.

Thus

- less dangerous materials are produced
- less toxic material is deposited
- less waste is produced
- more regulations are developed
- gains in productivity are measured by reductions in the level of unemployment
- less natural resources destroyed
- less of the world’s species become extinct

This process of eco-efficiency thus slows down environmental decline – but does not halt it – and the same system remains.

4. Eco-Effectiveness

This approach is not to become a ‘little less bad’ but to become very good in areas of environmental sustainability. It is important to find new ways to deal with materials, energy sources, waste and not merely simply slow down the environmental damage that we do now, and which will be economically viable into the future.

5. Corporate Culture and Energy Conservation

If an organisation is to seriously address energy conservation and sustainability in its operations it needs to use its corporate culture to create an effective eco-focussed organisation. Just as an organisation has a vision for its future in terms of financial stability, profitability, expansion and growth, it must also have an “eco-vision” for itself, whereby it doesn’t just “nibble away” at its environmental damaging actions (getting less bad) but rather defines strong positive steps to be taken to do things differently and in an environmentally good manner.

Figure 1 below is a suggestion for addressing 3 key elements of a Corporate Culture, including environmental concerns.

	Communication – Internal and External		
	Finance	Ethics	Environment
Finance	<ul style="list-style-type: none"> ▪ Profit ▪ Financial sustainability 	<ul style="list-style-type: none"> ▪ Minimum wages ▪ Benchmark Salaries ▪ R on I to stakeholders 	<ul style="list-style-type: none"> ▪ Cost-benefit analysis ▪ Life-cycle costing ▪ Alternative modelling
Ethics		<ul style="list-style-type: none"> ▪ Code of Ethics ▪ Fairness ▪ Integrity ▪ Behaviour Patterns 	<ul style="list-style-type: none"> ▪ National global impact of non-action ▪ Workplace safety (OSH)
Environment			<ul style="list-style-type: none"> ▪ Eco-vision ▪ Sustainability vision ▪ Green buildings ▪ Energy-efficiency

Figure 1. Relationship between elements of Culture and the nature/content of communication by businesses

6. A way forward

Any organisation that wishes to play a responsible part in determining the quality of the environment for generations to come needs to build its Corporate Culture in a way that reflects that responsibility.

The Construction Industry, which embraces more than just the production of building, can lead the way in this, through developers, designers, constructors, and consultants establishing eco-focussed corporate cultures and then living them.

The following are key steps in this process

- Use corporate culture to develop an effective eco-focussed organisation
- Develop an eco-vision and distribute and support it widely
- Focus on the culture of the growth of good not just less worse
- Continuously seek new ways to do what is done now
- See beyond the life of the current organisation membership
- Create a knowledge culture where everyone knows the result of poor energy conservation
- Create a culture of caring per se
- Reward those who lead the way in energy saving and build it into the merit system

It is accepted that this will not happen quickly in organisations, and it is likely that a growth of “less worse” solutions will be developed until new “good” concepts are created. A good example was the campaign to “shut off as you leave” for lights in buildings that was a theme in the 1980s. This led, through the improvements in technology, to automatically shutting off lights and the low-energy light bulbs which are common today.

One critical first step for an organisation is to be aware of what it is currently spending on energy, and what contribution it makes to sustainability management and eco-effectiveness. If this is not “audited” it is difficult to get better, or even less worse.

7. References

- Aftab Kazmi, (2003 “Study Suggests ways to conserve power” Gulf News, June 3rd, UAE.
- Battles, S.J. and Burns, E.M. (2000) Trends in Building – “Related Energy and Carbon Emissions: Actual and Alternate Scenarios, Summer Study on Energy Efficiency in Buildings”, www.eia.doc.gov. (accessed 06-21-05).
- Blok, K; Groot, H; Luiten, E and Reit-bergen, M.(2004). *The Effectiveness of Policy Instruments for Energy-Efficiency Improvements in Firms*, Springer.
- Boyd, D (2001). “The Race to Save the World’s Forests”, Sierra Legal Defence Fund, Vancouver, Canada.
- Brown, L. (2001). *Eco-Economy-Building an Economy for the Earth*, Norton and Company, NY
- Carson, R. (2002) *Silent Spring*, First Mariner Books, USA.
- Deal, T. and Kennedy, A. (1999). *The New Corporate Cultures*, Perseus Publishing, Cambridge, Mass.
- Deal, T. and Kennedy, A. (2000). *Corporate Culture*, Perseus Publishing, Cambridge, Mass.
- Energy Information Administration (1998). “State Energy Data Report 1998, Emissions of Greenhouse Gases in the US 1998”, www.eia.doc.gov (accessed 05-19-05).
- Energy Information Administration (EIA) (2004).”International Energy Outlook 2004” www.eia.doc.gov (accessed 06-20-05)
- Environmental Agency (2005), “Energy – Environmental Facts & Figures”, www.environment-agency.gov.uk (accessed 06-16-05).
- Gallagher, R. (2003). *The Soul of an Organisation*, Dearborn Trade Publishing, USA.
- Hawken, P. (1994). *The Ecology of Commerce*, Harper Collins, NY.
- Kotter, P. and Heskett, J. (1992). *Corporate Culture and Performance*, The Free Press.
- McDonough, W and Braungart, M. (2002). *Cradle to Cradle*, North Point Press, NY.
- Pew Centre for Global Climate Change (2005). “Towards a Climate-friendly Built Environment”. www.pewclimate.org (accessed 06-21-05)
- Schipper, L; Meyer, S; and Hope, C. (1992). *Energy Efficiency and Human Activity*. C.U.P. (UK).
- United Nations (1998). “World Population Prospects, A 1998 Revision”.
- World Resources Institute (2002). “Pilot Analysis of Global Ecosystems”.